

ON THE REGULATION OF SELECTED EXTERNALITIES IN THE MODERN URBAN ENVIRONMENT IN SLOVAKIA: SHARED MICROMOBILITY, SHORT-TERM ACCOMMODATION AND OUTDOOR ADVERTISING

Mgr. Ján Mazúr, PhD.*
Assistant Professor
jan.mazur@flaw.uniba.sk
ORCID: 0009-0009-3996-0969

Mgr. Marián Ruňanin*
Ph.D. Student
marian.ruňanin@flaw.uniba.sk
ORCID: 0009-0003-8989-0803

JUDr. Viera Jakušová, PhD.*
Assistant Professor
viera.jakusova@flaw.uniba.sk
ORCID: 0009-0000-9557-4856

* all at Comenius University Bratislava
Faculty of Law
Safárikovo nám. 6, P.O. BOX 313
818 00 Bratislava, Slovakia

This article was supported under the grant project APVV-22-0482 Financing of local government - the potential of functional microregions (APVV-22-0482 Financovanie územnej samosprávy - potenciál funkčných mikrорегиóнов)

Submitted: 30 July 2025
Accepted: 21 November 2025
Published: 31 December 2025

Abstract: *This paper analyses local authorities' ability in Slovakia to regulate negative externalities of selected urban services, specifically shared micromobility, short-term tourist rentals, and outdoor advertising. The authors explore the current legal framework and identify significant regulatory gaps at the local level. Drawing from international experiences, they propose measures such as operator registration, mandatory data sharing, geofencing implementation, and empowering municipalities to establish binding rules. The study emphasises that effective regulation requires legislative changes at the national level combined with enhanced local competencies, aiming to minimise adverse impacts while preserving the benefits of these services.*

Key words: *Negative Externalities; Regulation; Local Government; Micromobility; Short-Term Rentals; Outdoor Advertising*

Suggested citation:

Mazúr, J., Ruňanin, M., Jakušová, V. (2025). On the Regulation of Selected Externalities in the Modern Urban Environment in Slovakia: Shared Micromobility, Short-Term Accommodation and Outdoor Advertising. *Bratislava Law Review*, 9(2), 33-60. <https://doi.org/10.46282/blr.2025.9.2.1114>

1. INTRODUCTION

Many contemporary innovations allow users to use infrastructure or resources more efficiently, but when overused, they can lead to negative impacts on third parties – negative externalities.¹ In this study, we deal with three such services specially established in larger cities, micromobility, short-term accommodation outside classic hotel facilities and outdoor advertising, and the powers of primarily Slovak municipalities to moderate these services in their territory in order to reduce their negative impacts

¹ We use negative externalities to mean unpriced harms borne by third parties within a municipality (e.g., sidewalk obstruction, noise), and spillovers to mean effects that cross municipal borders (e.g., tourism displacement across city lines). See for instance: Helbling (2010, pp. 48–49).

without limiting the positive ones. Although outdoor advertising has been present in Slovak cities at least since the transition to a market economy, abroad for decades longer, the other two services have been around in Slovakia for about 10 years.

The ambition of the study is to verify whether local governments (or other public authorities) in Slovakia have such tools at their disposal that will enable the sustainable functioning of these services in the urban environment. In particular, the research question guiding this study is the following: do Slovak municipalities possess adequate, modern regulatory tools to mitigate local externalities from platform-mediated urban services while preserving their benefits? We test whether Slovak municipalities currently have adequate, modern regulatory tools and identify concrete statutory gaps and enforcement bottlenecks where they do not. The research is based on a hypothesis that Slovak municipalities lack these appropriate tools.

The motivation underlying this research is the growing dissatisfaction with some manifestations of these services in several cities. In the case of micromobility, these are problematic collisions and accidents when interacting with pedestrians. Short-term accommodation (outside standard hotel facilities) often brings with it an increase in the unavailability of housing, as part of the housing market is reoriented in popular tourist destinations to short-term accommodation for tourists, which also brings with it problematic interactions between tourists and residents. Finally, outdoor advertising can reduce the aesthetic quality of cities or take away the attention of drivers.

These phenomena have a rather localised impact on the territory of a particular municipality (or a city), it is the municipalities that have the most accurate information about the need for possible regulatory intervention, and we assume that they also have adequate knowledge of the context for the adequacy of regulatory intervention. They may also be politically motivated to correct the negative effects. We verify these assumptions by analysing the existing legal framework governing the services. If we identify gaps in legal regulation (so-called policy gaps), we also offer *de lege ferenda* proposals to improve the regulatory framework.

The three cases studied are best understood as platform-mediated urban services or platform-gated activities with two-sided market dynamics and information asymmetries. Economic theory motivates the choice of instruments: where Pigouvian logic supports fees and fines aligned with marginal damage where measurement is feasible; limits to Coasean bargaining justify public rules when victims are diffuse and transaction costs high, and Oates' decentralisation suggests assigning instruments to the lowest level capable of internalising purely local externalities while reserving spillover-heavy or economy-wide levers to higher tiers (EU/national). We apply this lens throughout and pair each proposed instrument with a mechanism and a measurable outcome.

The explanation begins with an overview of the regulation of shared micromobility, then we focus on short-term accommodation services and outdoor advertising. In conclusion, we summarise the main findings and discuss the further application of this regulatory approach.

2. SHARED MICROMOBILITY

Shared micromobility refers to the shared use of low-speed means of transport (especially bicycles, e-scooters, etc.) that allow users to have short-term access to a

given means of transport according to (their) needs (Shaheen and Cohen 2019).² The advantage of shared micromobility is that it can flexibly expand the catchment area of public transport, or expand public transport services, especially the so-called last-mile mobility, i.e. the last section of transport (European Commission, 2020). It has the potential to make a significant contribution to reducing CO₂ and other emissions, especially from passenger cars, especially if it uses sustainable energy sources for charging (Comi and Polimeni, 2024). Moreover, shared mobility also provides new solutions in the areas of courier services, goods transport or food and beverage delivery, as well as last-mile logistics (Kmet', 2021).

Despite the undeniable advantages of micromobility for flexible urban mobility, it also brings with it the negatives in the form of an increased accident rate (Tark, 2023).³ In addition to the lack of a separate infrastructure for this type of mobility, the source of the problem seems to be primarily modern ways of enforcing the rules applicable to electromobility and, secondarily, the rules for operators of these services. As an example, riding electric scooters on the pavement, which leads to unwanted collisions. Riding on the pavement is usually the result of the absence of a safe, separate cycling infrastructure that would also serve users of micromobility services. In many cases, these means of transport also obstruct pedestrians or cyclists due to the absence of reserved parking spaces. Currently, there is no legal regulation that would determine how to approach specifically driving or parking micromobility vehicles. Act No. 8/2009 Coll. on Road Traffic and on the Amendment of Certain Acts, as amended (hereinafter referred to as the "**Road Traffic Act**") only narrowly regulates the ride of a scooter with an auxiliary motor, but does not set clear rules for micromobility, nor does it give this possibility to determine the rules to a public administration body.⁴

2.1 Regulatory Approaches to Micromobility

A study by Sobrino et al. (Sobrino et al., 2023) looks at the regulation of shared electric scooters in urban areas and identifies the key factors influencing the effective implementation of these services: market access, technical requirements, transport safety and supervision of services. A fundamental problem identified by the study is the inconsistency of regulations within metropolitan areas. Different rules in neighbouring cities create legal uncertainty for both operators and users, complicating effective mobility management. Harmonisation of rules within the agglomeration would therefore allow for better coordination and predictability of regulations.

The study furthermore recommends that fixed parking spaces be created in city centres, while more flexibility can be maintained in less densely populated areas. In this way, uncontrolled overloading of public spaces with scooters is avoided while maintaining the availability of the service. The integration of shared electric scooters into the existing transport infrastructure is also an important aspect; in order to create synergies between various modes of sustainable mobility, scooters should be connected to public transport, for example through shared tickets or single booking and payment platforms.

² Note: There is also shared mobility in the broad sense of the word, which includes, for example, services such as Uber or Bolt, or short-term car rentals. However, we do not deal with these in the following explanation; The scope of the post is focused on shared micromobility (bicycles, scooters, etc.).

³ Department of Transportation (2023). For the Slovak context, see anecdotally also: STVR (2024).

⁴ See Section 55a of the ZoCP.

From a safety point of view, it is necessary for regulations to include clear rules on the speed limit, the obligation to use safety features and minimum technical standards for vehicles. Many of these regulatory elements can be programmed directly into the means of micro-mobility, thus eliminating the possibility of committing an offence at all (see below). Supervision of compliance with the rules also plays an important role, and operators should be obliged to share data on the movement and use of scooters with cities, which would ensure more effective control and management of mobility.

The study highlights that effective regulation of shared electric scooters requires collaboration between the public and private sectors. Cities should have more supervisory and regulatory powers, with the aim of creating a balanced model that promotes sustainable mobility without unduly disrupting public space (Sobrinho et al. 2023). However, comparatively, there is also a model of greater limitation of these services, such as Paris completely banning shared e-scooters.⁵

According to a McKinsey report of e-scooter sharing regulations in the world's 100 largest cities, the number of rides on these means of transport has risen to 350 million in 2022 since 2017, prompting increased yet differentiated interest from regulators (Heineke et al., 2023). Some cities, such as Barcelona, Philadelphia, Sydney, and Toronto, have banned shared e-scooters entirely, with private use remaining allowed. Other cities, such as Washington, D.C., Los Angeles and Madrid, allow them to operate, but limit the number of operators and vehicles through tenders. Some cities, such as Tokyo, São Paulo, Monterrey and Berlin, have introduced regulated rules with no limit on the number of operators. By contrast, there are no specific regulations in locations such as Mumbai, New Delhi, Dhaka and Cairo.

Geofencing is also one of the current trends in the regulation of shared mobility. This technology creates virtual boundaries in the urban environment, which make it possible to precisely define zones with specific rules for e-scooters and e-bikes, such as automatically reducing the maximum speed near schools or in pedestrian zones, increasing safety for pedestrians and other road users. It can also prevent parking in inappropriate areas by restricting the possibility of ending your drive outside of designated parking spaces. The implementation of geofencing thus provides municipalities with a tool for more efficient control and integration of shared micromobility services into the existing transport infrastructure, which contributes to a safer and more sustainable urban environment. The report on its use in Munich for shared mobility services shows positive changes after its introduction and a significant increase in the "discipline" of its users (Müller et al. 2024).

2.2 Modification of Micromobility in Slovakia

To evaluate the adequacy of the current regulation of micromobility in Slovakia, we propose to consider at least the following aspects (we apply the assumption that the means of micromobility are mainly scooters, bicycles, unicycles/unicycles and their electric variants):

1. Is there regulation of the concept of micromobility in the form of a special law or part of a law?
2. Is there regulation of operators of micromobility services (authorisation or registration as a prerequisite for the provision of services, mandatory provision of data, mandatory insurance, geofencing, etc.)?

⁵ See, for example: Schofield (2023).

3. Is there a regulation specifically regulating driving in any of the means of micromobility (including insurance)?
4. Is there a regulation specifically regulating the parking of any of the means of micromobility on the pavement?
5. Is there a power for a public authority to determine binding micromobility rules at subordinate level?
6. What role do municipalities (cities) play in this context?

The Slovak legal system does not explicitly recognise the term micromobility, nor does it contain other interchangeable terms or concepts.⁶ In answer to question No. 1, we can therefore state that in Slovakia we do not have a straightforward legal regulation of the concept of micromobility.

In answering the second question, we focused on verifying whether the transportation regulation does contain a regulation of the person of the "operator" of micromobility services and, consequently, the regulation of the obligations of these operators. Unsurprisingly, the Slovak legal system does not recognise the person of the operator of micromobility services and thus does not directly assign any obligations to him. However, it is necessary to deal with the question of whether the operation of micromobility services does not constitute a business with special requirements within the meaning of the Trade Licensing Act.⁷ If we define the rental of mobility vehicles (i.e. the rental of movable property – means of transport) as a key part of micromobility services, we do not find this service in the list of reserved activities, professions or objects of business in Section 3 of the Trade Licensing Act. On the contrary, it is included in the list of free trades in point 58 of Annex No. 4a to the Act. Apart from the general requirements for business (trade, tax registration, etc.), operators of micromobility services do not need to obtain any special permit for their activities.

Questions 3 and 4 are directed to the regulation of the actual driving and parking of micromobility vehicles. In this respect, the Slovak legal system contains certain rules that can also be applied to means of micromobility. First, the driving of micromobility vehicles is subject to the specific rules set out in Section 55a of the Road Traffic Act. The rules for their operation, as well as the obligation to have mandatory contractual insurance, vary depending on the design speed, weight or power of the electric motor. The law also determines the rules for driving micromobility vehicles on roads and sidewalks.

Currently, there is no specific legal regulation that would determine how to approach the parking of micromobility vehicles. The parking of micromobility vehicles on the pavement is affected by the Road Traffic Act. The provision of Section 52 (2) of the Act stipulates that stopping or standing of a micromobility vehicle is possible under certain spatial conditions. Although, the Section 20 of the Road Act prohibits the

⁶ The key legal regulations include Act No. 8/2009 Coll. on Road Traffic and on the Amendment of Certain Acts, as amended (hereinafter referred to as the "**Road Traffic Act**"), Act No. 135/1961 Coll. on Roads (Road Act), as amended (hereinafter referred to as the "**Road Act**"), Act No. 381/2001 Coll. on Compulsory Contractual Liability Insurance for Damage Caused by the Operation of a Motor Vehicle and on the Amendment of Certain Acts, as amended (hereinafter referred to as the "**Act No. 381/2001**"), Act No. 381/2001 Coll. on Compulsory Contractual Liability Insurance for Damage Caused by the Operation of a Motor Vehicle and on the Amendment of Certain Acts, as amended (hereinafter referred to as the "**Act No. 381/2001**"), Decree No. 106/2018 Coll. on the Operation of Vehicles in Road Traffic and on Amendments to Certain Acts, as amended (hereinafter referred to as "**Decree No. 106/2018 Coll.**"), Decree of the Ministry of Transport and Construction of the Slovak Republic No. 134/2018 Coll., laying down details on the operation of vehicles in road traffic, as amended (hereinafter referred to as "**Decree No. 134/2018 Coll.**") and Decree No. 35/1984 Coll. of the Federal Ministry of Transport, which implements the Road Act (Road Act), as amended.

⁷ Act No. 455/1991 Coll. on Trade Licensing (hereinafter referred to as the "**Trade Licensing Act**").

placement of objects that constitute a fixed obstacle, these vehicles cannot be subsumed under a fixed obstacle, as it requires a solid connection to the ground to form a solid obstacle.⁸

However, these vehicles could be subsumed under an obstacle (of road traffic) within the meaning of Section 43 of the Act. It is true that the person who caused the obstacle to road traffic is obliged to remove it immediately. If they fail to do so, the road administrator is obliged to remove it immediately at the person's expense.⁹ Defects in the passability of local roads intended for pedestrians or in the passability of sidewalks are obliged to be removed without delay by local road administrators.¹⁰ For these reasons, the regulation of parking of micromobility vehicles remains a challenge.

At the heart of the problem of operational issues (driving and parking) of micromobility vehicles is the topic of responsibility. When driving, the responsibility for driving is relatively directly linked to the driver (user of the micromobility service), but a clear software or hardware speed limit in a specific area (geofencing) can only be achieved by the means of the operator of the service itself. Today, however, there is no legal regulation allowing public authorities to oblige the operators to introduce geofencing in selected areas of the city (however, we believe that most operators voluntarily introduce geofencing in accordance with instructions from the municipality). Geofencing is also only preventive (although restrictive) in nature. Without geofencing, it is also difficult to operationalise sharing information about offences, accidents, and their perpetrators (service users). In situations where the offender would flee the scene of the accident or offence, it is only possible to invoke the general obligation of cooperation. A more complex issue is the responsibility for parking, where geofencing (preventing parking in a certain area) can again be used in terms of prevention. However, this is often difficult to use in the detailed scale of the position on the pavement, hitting the technological limits. It is possible to request information from the operator about the offender of the offence, or through the institute of strict liability, transfer the fine to the operator, who can apply it to the offender – user of his service. However, the situation is legally unclear today.

Clearly, there is also no clear enabling provision in the law for public authorities (especially municipalities) to determine binding rules for micromobility services in a certain territory. Such rules could be determined specifically for a specific area, especially a denser urban area, ideally adopted in the form of a generally binding regulation (hereinafter referred to as the "GBR") of the municipality.

2.3 Possible Elements of Micromobility Regulation

To solve these issues of micromobility services, we propose to expand the powers of municipalities in the regulation of shared micromobility, because Slovak municipalities have the primary responsibility for mobility, or transportation policy, in their territory and due to the better knowledge of local conditions. We acknowledge that this makes sense primarily in more densely populated larger cities, specifically in city centres, where collision situations are currently occurring more frequently.

The obligation to obtain an authorisation to operate micromobility services does not appear to be entirely necessary, considering the principle of proportionality. An adequate response of the legislator could be the registration obligation of operators of

⁸ See Section 21(1) of Decree No 35/1984 Coll. of the Federal Ministry of Transport implementing the Road Act (Road Act), as amended.

⁹ See Section 43 (1) of the Act.

¹⁰ See Section 9 (2) of the Road Traffic Act.

micromobility services in the city (municipality) to provide the city with basic information about the service operator and establishing contact. An important part of the regulation should also be the obligation for shared mobility providers to share relevant data with municipalities (for more efficient infrastructure planning and monitoring of the use of these services).

An effective measure would be the introduction of mandatory docking points, which would serve as reserved zones for parking these devices, preventing their uncontrolled deployment and disruption of public space. Equally important is the pre-programmed speed limit in defined parts of the city (geofencing), which is already a standard for self-regulation of micromobility service operators.

Municipalities currently have the possibility to conclude contracts with operators of these services, in which they can set specific conditions of operation, and such contractual mechanisms could serve as a tool for more precise regulation and adaptation to local needs. For example, the City of Bratislava has developed draft rules for shared mobility operators within the city of Bratislava (The Capital of the Slovak Republic is Bratislava, 2024).

The draft rules constitute a recommendation for shared mobility operators as regards the speed and parking of those means; they are not directly binding, but operators can voluntarily adopt them (self-regulation based on the recommendation of the city). The City of Bratislava has proposed speed and parking restrictions for individual specific zones, such as pedestrian zones, parks, etc., in a map available to all operators on request. The city recommends a speed of 10 km per hour in the pedestrian zone, but a maximum of 15 km per hour. The city recommends places where means of transport should be parked, for example parallel to the sidewalk and at bicycle racks and outside of public transportation stops.

The city also recommends informing and educating users about improper parking, for example in the middle of narrow sidewalks where they block pedestrians, or in other places where they can act as an obstacle. If the operator does not meet the conditions of the city and repeatedly violates the rules and recommendations (e.g., inappropriate parking), these inappropriately located means of transport may be removed by the municipal police according to Section 9 (6) of the Road Act, which deals with the passability of roads. Vehicles may be collected after paying the costs of removal. The city may also include operators who meet the city's conditions in its marketing communications and communication channels (e.g., website, social media, printed materials) as part of a sustainable transport mix (Capital City of The Slovak Republic Bratislava, 2020, p. 2.).

Table 1: A compact theory of change for micromobility governance^{11, 12}

Lever	Mechanism	Targeted externality	Primary metrics (city-level)
Operator registration	Establishes accountable counterpart, enables enforceable permit terms, service caps, and response SLAs; assumption of strict liability.	Accountability & enforcement gaps	Response time to removal requests, share of verified operator contacts, violations per 10,000 trips.
Data sharing (MDS/GBFS)	Standardised trip/device feeds and policy APIs enable digital enforcement and evaluation.	Information asymmetry; weak monitoring	Trips, trip-minutes and device-hours; crashes per 10 ⁴ 5 trips, complaints per 10 ⁴ 4 trips, device distribution equity indices.
Designated docking/parking bays	Nudges end-of-ride to compliant locations, simplifies enforcement.	Sidewalk obstruction, visual clutter	Share of rides ending in designated bays; improperly parked devices per curb-km; mean clearance on footways. Evidence: Munich reported parking compliance rising from 19% to 88% after geofenced parking regimes and clearer rules.
Geofencing (slow/ no-ride/ no-park)	Enforces speed caps and spatial rules in sensitive areas.	Pedestrian safety & comfort	Fatalities/injuries; speed compliance rate in slow zones; conflicts/accidents per 10 ⁴ 5 trips, complaints per week in affected zones. Use national casualty stats as background risk context.

As for Enforcement pathways, municipal by-laws should pair operator registration with standardised data feeds (MDS/GBFS trip/device and policy APIs) for digital enforcement, service-level agreements (e.g., 2-hour removal of obstructing devices, graduated operator penalties for breach), geofenced compliance (slow/no-ride/no-park zones) codified in permits, and mis-parking liability with a layered design: primary user-level administrative fine where identification is feasible; operator strict liability as a fallback if the user cannot be identified via lawful request and the operator breached data/response duties. This structure aligns incentives without over-collecting personal data whereas operators retain identifiable data, municipalities receive event-level tokens and on-request identification under statutory basis, purpose limitation and retention caps. Success metrics include decrease in fatalities/injuries caused by shared micromobility (outcome indicator), speed compliance in slow zones (measurable due to data sharing), obstruction complaints per curb-km, and share of rides ending in designated bays (output indicators).

¹¹ Require registration and an MDS feed in operator permits; define slow/no-park zones and docking bays by municipal by-law or contract; publish a quarterly dashboard with the metrics above (normalised per trips, trip-minutes, or curb-km). Munich's experience shows that geofenced parking and clear placement rules can materially improve compliance; Bratislava's draft rules already outline speed and parking zones that can be evaluated this way. Available at: <https://bratislava.blob.core.windows.net/media/Default/Dokumenty/Stránky/Chcem%20vybavit/Doprava/pravidla-zdieľana-mobilita.pdf> (accessed on 29.10.2025)

¹² Used sources: OPEN MOBILITY FOUNDATION. (n.d.); GOV.UK. (2023); Lindholmen (2024).

3. SERVICES PROVIDING SHORT-TERM TOURIST RENTALS

Like shared micromobility, short-term rentals are platform-mediated urban services with local harms (as housing availability, neighbourhood nuisance) and data asymmetries because key levers and information sit with gatekeeping platforms. Framing both cases as platform-governance problems allows a unified analysis: first secure registration and standardised data flows, then apply proportionate evidence-based local rules and evaluate them with clear metrics. The Airbnb or Boooking.com platforms allow ordinary people to offer their free accommodation capacities, thus becoming part of the sharing economy.¹³ Despite the fact that these services provide a fairly simple tool for tourists in search of accommodation, or for property owners the opportunity to increase the yield on their property, several studies also show the negative aspects of these services, as evidenced by the bans on similar services in several world capitals.

In particular, Airbnb is a revolutionary accommodation placement model that can stimulate tourism and contribute to the economic growth of cities thanks to lower prices and a wide range of options offered. Some studies estimated a significant job growth and increase in tourism-related sectors (Nera Economic Consulting, 2017). As Airbnb provides access to more affordable and diverse forms of accommodation, which not only attracts a wider range of travellers, it should also open up new opportunities for the local economy. In theory, hosts who provide accommodation through this platform can earn income, which in turn can directly support local businesses and services, although in recent years there has been a clear trend of commercialisation of accommodation by professional accommodation operators akin to hotel chains (Hall et al., 2022, pp. 3057-3067).

In addition, the growing share of Airbnb in some urban areas is associated with a slight increase in employment in the hospitality sector, such as restaurants, demonstrating that the expansion of this service can have a positive impact on local jobs. Another benefit is the competitive environment that Airbnb creates, so traditional hotels have to face an alternative that often brings better affordability and flexibility. This pressure on the market can lead to an improvement in the quality of service across the accommodation sector (Economic Policy Institute, n.d.).

On the other hand, Airbnb has a significant impact on local communities, the real estate market, and the safety of residents, with its expansion causing multiple negative consequences. The growth of short-term rentals is reducing hotel revenues, with the biggest impact on low-cost accommodations, which are coming into direct competition with Airbnb (Yang et al., 2022). At the same time, short-term rentals contribute to rising rental and property prices, thus displacing long-term residents from their homes (Ding et al., 2023). This process leads to situations where originally residential areas are turned into tourist zones without a stable community, which deepens the tension between locals and tourists (Ho, Chaang-luan Chen et al., 2023).

Another problem is the negative impact on safety and quality of life in cities. Short-term tenants often cause noise, vandalism, and worsen the overall level of safety in neighbourhoods. Unlike traditional hotels, there are no uniform safety standards for Airbnb, such as firefighting measures or guest identity checks, which increases the risk of unforeseen incidents. Regulatory uncertainty is also a serious problem for Airbnb. Another problem is the situation where many properties are rented out by commercial operators who avoid tax obligations and regulations on short-term rentals. This leads to

¹³ AIRBNB, INC. (2024).

market distortions, as traditional hotels have to meet stricter standards, while Airbnb can benefit from regulatory loopholes (Ding et al., 2023). In addition to weakening the hotel sector, municipalities are losing significant revenues from tourist taxes, which could be used to develop public services and infrastructure.

3.1 Regulatory Approaches to Short-Term Accommodation

The Council of the European Union adopted Regulation (EU) 2024/1028 of the European Parliament and of the Council of 11 April 2024 on the collection and provision of data relating to short-term accommodation rental services and amending Regulation (EU) 2018/1724.¹⁴ This Regulation addresses one of the main challenges, namely the lack of reliable information on services, such as the identity of the host, the place where these services are offered and their duration. The lack of such information makes it difficult for authorities to assess the real impact of short-term accommodation rental services and to prepare and enforce appropriate and proportionate policy responses.¹⁵

This Regulation lays down rules for the collection of data by competent authorities and providers of online short-term rental platforms and for the provision of data from online short-term rental platforms to competent authorities in relation to the provision of short-term accommodation rental services offered by hosts through online short-term rental platforms.¹⁶

The Regulation is expected to increase transparency of short-term accommodation rentals and help public authorities to regulate this increasingly important component of the tourism sector. The collection and exchange of data will make it possible to put in place effective and proportionate local policies to address the challenges and opportunities associated with the short-term rental sector. The Regulation balances the promotion of innovation and the protection of communities. It allows for fair competition in the sector while guaranteeing quality for consumers. Ultimately, the Regulation may contribute to a more sustainable tourism ecosystem and support its digital transformation (Council of the European Union, 2024).

The Regulation introduces harmonised registration requirements for hosts¹⁷ and short-term rental properties, which include the assignment of a unique registration number to be displayed on the property's website and online platforms. Hosts will receive this registration number needed to provide short-term accommodation rental services by providing simple information. Online platforms will have to regularly provide the Digital One-Stop Shop in the Member States with information on the rental activities of their hosts. This will help competent authorities to produce reliable statistics and take sound regulatory action (Council of the European Union, 2024).

¹⁴ EUROPEAN UNION. EUR-Lex: Access to European Union law [online]. Available on the Internet: <https://eur-lex.europa.eu/legal-content/sk/TXT/?uri=CELEX%3A32024R1028> (accessed on 30.12.2024).

¹⁵ See paragraph 1 of Regulation (EU) 2024/1028 of the European Parliament and of the Council of 11 April 2024 on the collection and provision of data relating to short-term accommodation rental services and amending Regulation (EU) 2018/1724.

¹⁶ See Article 1 of Regulation (EU) 2024/1028 of the European Parliament and of the Council of 11 April 2024 on the collection and provision of data relating to short-term accommodation rental services and amending Regulation (EU) 2018/1724.

¹⁷ A Host is a natural or legal person who provides, or intends to provide, on a regular or temporary basis, short-term accommodation rental services for remuneration, on a professional or non-professional basis, through an online short-term rental platform. See Art. Article 3(2) of Regulation (EU) 2024/1028 of the European Parliament and of the Council of 11 April 2024 on the collection and provision of data relating to short-term accommodation rental services and amending Regulation (EU) 2018/1724.

We consider the main regulatory problems for short-term accommodation to be threefold. First, the availability of housing for city residents or long-term tenants – the transformation of apartments from the function of housing to the function of short-term accommodation services may lead to a decrease in housing availability. This can circumvent the regulation of permanent housing leading to unequal conditions are created on the market. The spatial planning authority monitors the land use policy (e.g., housing policy) by determining the relevant regulations (e.g., the function and intensity of development). By transforming permanent housing into short-term housing, the goals of these policies are circumvented, and the housing supply is reduced. Second, the inappropriateness of the location of the short-term accommodation service in residential buildings – potential conflicts, hustle and bustle associated with it, etc. It is advisable to place a homogeneous function (e.g., housing) in one apartment building or entrance to minimise conflicts of often incompatible operations (nightlife, night arrivals of guests, demanding cleaning cycles, increased movement of unknown persons increasing the risks for residents). Finally, the tax loopholes and tax evasion – the transfer of short-term accommodation services from professionally managed hotel facilities to potentially hundreds of natural persons can lead to tax loopholes and evasion, both in accommodation tax (currently local tax) and in income tax (income of municipalities or the state – FO/PO) and value added tax (state). This problem is also a key factor for the protection of competition in the short-term accommodation segment.

The trend abroad, especially in popular tourist destinations, which become literally overwhelmed with tourists during the season, is to regulate short-term accommodation services. There are several approaches, from a blanket ban on the provision of short-term accommodation services in residential areas, through time restrictions on the possibility of providing the services (e.g., 60 days during the year), or mandatory tax registration, to deviating adjustments to tax liability.

There are several options for regulating services such as Airbnb. The regulation of short-term rentals through platforms such as Airbnb evolves differently from city to city, depending on local needs and the challenges that this phenomenon brings. One of the most common approaches is to introduce tax obligations for landlords, whereby in some cases, such as in Vienna, hosts pay the relevant taxes themselves, while in cities such as Amsterdam or San Francisco, this obligation is taken over by the platform itself and transferred the collected taxes to the local government, thus facilitating tax administration. These measures aim to ensure that short-term rentals do not provide a competitive advantage over traditional hotel facilities, which are subject to tax and regulatory obligations (Von Briel and Dolničar, 2020).

Another important regulatory tool is the introduction of a mandatory registration or licensing system. Many municipalities, such as in Barcelona and Berlin, require every landlord to obtain an official registration or license, creating a control mechanism to monitor and regulate the industry (Bei and Celata, 2023). In addition, time limits on leases are increasingly used, which set the maximum number of days during which a property can be rented out without a special permit.¹⁸

In addition to time limits, some cities have also implemented territorial restrictions that divide areas according to the level of regulation. Barcelona and Amsterdam have thus introduced so-called growth and decline zones, where the granting of new licenses is strictly limited or completely prohibited in the most affected parts of

¹⁸ Paris, for example, has limited this period to 120 days per year, trying to prevent abuse of the system by professional landlords who are effectively operating as business entities and circumventing traditional real estate market regulations. *Ibid.*

the city. This model has the ambition to mitigate the excessive concentration of tourist accommodation in historic centres and redirect it to less congested neighbourhoods.¹⁹

From the point of view of regulation, control of the scope of business of individual landlords also plays an important role. Some municipalities have taken measures to limit the number of properties that can be managed by a single person or entity, trying to eliminate large commercial players who operate large hotel chains through platforms such as Airbnb without being subject to traditional hotel regulations (Bei, 2025). Successful regulation also requires an effective control and enforcement mechanism. Many cities, such as Barcelona and Paris, have established cooperation with platforms that are obliged to block illegal offers and provide data on registered landlords. Such measures allow authorities to better monitor the market and intervene more effectively against illegal practices.²⁰

Looking at the short-term rental from the fiscal perspective, taxation and fees for short-term rentals have a significant impact on market regulation and local government revenues. Cities such as Amsterdam and San Francisco have made it mandatory for platforms such as Airbnb to collect tourist taxes directly, making it easier to control and collect them. Elsewhere, such as in Vienna, hosts are required to pay taxes, but this makes it difficult to enforce them effectively. Some jurisdictions impose additional registration or license fees for short-term rentals, limiting uncontrolled supply growth. At the same time, these measures level the playing field between hotels and short-term rentals, as hotels are already subject to similar tax obligations. Mandatory registrations and licensing systems reduce the number of illegal rentals and increase control over the market, while cities such as Berlin and Paris have seen a decline in advertised apartments.

Time limits, such as the 120-day limit in Paris, have mixed results, as they often lead to circumvention of the rules through multiple accounts. Zonal regulations, introduced in Barcelona and Amsterdam, help alleviate tourist pressure in the centres, but may shift the problem to the outskirts. Limits on the number of properties per host limit the professionalisation of the market, bringing short-term rentals closer to the original idea of a sharing economy.

The regulation of Airbnb can also theoretically have a constitutional framework, as American studies show, for example (Jefferson-Jones, 2015, pp. 557–576). However, current judicial practice in European countries proves the opposite. We can cite two cases where there was a restriction on Airbnb and the courts approved this restriction. The first situation concerns Spain, where the Spanish Supreme Court approved the possibility for property owners' associations to limit or even prohibit the provision of Airbnb services in their properties by a majority vote (Short Term Rentalz, 2023). The second case concerns the city of Berlin, Berlin's regulation of short-term rentals, known as the Prohibition of Misuse of Residential Space, was adopted in 2014 to limit the negative impacts of commercial rentals on housing affordability.²¹ The city courts initially allowed the original

¹⁹ *Ibid.*

²⁰ In Barcelona, for example, special inspection teams have been set up to actively search for illegal offers and impose sanctions in the event of violations, which has significantly reduced the number of illegal rentals. *Ibid.*

²¹ A key element of this legislation is the obligation to obtain a permit to rent out entire apartments for short stays, while a transitional period was in force for existing offers until May 2016. In 2018, the regulation underwent an amendment that introduced mandatory registration of rented properties. Owners can rent out their primary apartment under certain conditions, for example during their absence, while when renting a part of the apartment to the extent of less than half of the total area, a permit is not required, however, registration is still required. Secondary apartments can be used for short-term rentals for a maximum of 90 days per year,

ban on Airbnb in the city, arguing that there was a critical shortage of rental housing in Berlin and the ban was in line with the German Constitution. Thanks to the new decision of the Higher Administrative Court, these restrictions are even retroactive (DW.COM, 2023).

3.2 Short-Term Accommodation in Slovakia

A study from 2020 (Gregorová, 2020) analysed the spatial expansion of the Airbnb service in Slovakia and its impact on the tourism market (Gregorová, 2020). The offer of short-term rentals of 7,756 beds in 987 accommodation facilities in 2019 was concentrated in four main types of locations: large cities (Bratislava, Košice), mountain recreational areas (Tatras, Low Tatras), spa and summer recreation centres (Piešťany, Podhájska) and peripheral rural areas (e.g., Detvianske lazy, Krupinské lazy).

At the same time, the author points to the growing concentration of tourist accommodation in some areas, which leads to the phenomenon of so-called "tourist ghettos", like those in Western European capitals. According to the study, this phenomenon is manifested not only in the historical centres of foreign cities, but also in Bratislava and the High Tatras. The study also draws attention to the dynamic growth of the use of the Airbnb service in Slovakia compared to other V4 countries. Overall, the study evaluates the growth of the Airbnb service in Slovakia as significant, with its greatest impact being reflected in tourist-attractive locations. At the same time, the author points out the risks associated with the deregulation of the accommodation market and the development of informal business in the field of short-term rentals, which can have long-term consequences on housing affordability and the dynamics of local communities (Gregorová, 2020).

There is certainly a risk of unequal market conditions between regular providers of tourist accommodation (hotels, B&B, hostels) and short-term accommodation providers intermediated via platforms, such as Airbnb or Booking.com. The main arguments consist of (i) regulatory requirements imposed on hotels and other formal types of establishments and lack of enforcement or inability of enforcement of these requirements in relation to informal establishments; this naturally has a real economic impact on the costs structure of respective providers and their competitiveness; (ii) tax treatment and the risk of tax evasion, which strikes competitiveness as well; (iii) other types of anti-competitive behaviour of the platforms based on their market power in intermediation services. These arguments are not only logically constructed but also have been anecdotally raised by associations of hotels in Slovakia.²²

In order to evaluate whether there are adequate regulatory tools in relation to services related to short-term accommodation outside standard hotel facilities, we will address the following questions:

1. Is there regulation of the concept of short-term accommodation outside standard hotel facilities, both in relation to the operators of the accommodation itself and in relation to the platforms facilitating this accommodation?

which is an additional restriction on the commercial use of real estate. Berlin has also introduced severe sanctions for violating the rules, with a maximum fine of up to 500,000 euros. The effectiveness of regulation is strengthened by the creation of a special control group with 30 employees who monitor compliance in practice. See: Hübscher and Kallert (2022).

²² See for instance the most recent manifestation of this: AHRs (n.d.).

2. Is there a regulation regulating the standard of this short-term accommodation?
3. Is there a regulation governing the mediation of this short-term accommodation?
4. Is there a power for the public authority to lay down binding rules for the provision of these services (accommodation and mediation) at sub-statutory level?
5. What role do municipalities (cities) play in this context?

In Slovakia, there is no explicit prohibition or specific legal framework for the provision of short-term accommodation placement services. However, this intermediation is carried out through platform operators, such as Airbnb or Booking.com, which, unlike operators of micromobility services, do not even have to have any physical element of presence in the territory of the Slovak Republic. They usually provide their services in Slovakia based on the free provision of services within the European single market. For this reason, the issue of their regulation and its enforcement is also significantly more difficult.

Although there is no explicit legal framework in Slovakia prohibiting the mediation of short-term accommodation through platforms such as Airbnb or Booking.com, their activities are already subject to a specific legal framework at the EU level. These platforms, even if they operate without a physical presence (or the presence of a legal entity) in Slovakia, are regulated through EU Regulation 2024/1028 and the Digital Services Act. At the level of European law, we cannot forget the directive known as DAC7 (EU Council Directive 2021/514). The directive regulated tax transparency in the digital economy, according to which platform operators are obliged to carry out due diligence procedures and annually collect, verify, report to the tax authorities detailed information about hosts (data such as address, first name and surname, etc.). This directive has also been transposed into our legal order.

At the level of national legislation, an amendment to Bill No. 470/2021 Coll. was approved, in which the legislator introduced special obligations for platforms such as Airbnb. This amendment introduced a new institute of a "representative of the taxpayer" in accordance with Section 38 (3) of Act No. 582/2004 Coll. This representative can be a digital platform mediating accommodation. Pursuant to Section 41c of Act No. 582/2004 Coll., the municipality may then conclude an agreement with such a platform (as a representative of the payer) on the conditions for collecting and paying local tax for accommodation. In such a case, the platform would collect the tax directly from the guest (taxpayer) as part of the reservation payment in accordance with Section 41c and pay it directly to the municipality (tax administrator). For the accommodation provider itself (which is primarily a taxpayer under Section 38 (2) of Act No. 582/2004 Coll.), this would mean a simplification of the administration associated with the payment of tax for reservations mediated through the platform, although the provider would still be obliged to keep records of accommodated persons in accordance with Section 41a (3) of Act.

However, the provision of short-term accommodation services mediated by one of the platforms may be subject to regulation separately, apart from the regulation of the intermediation itself. Operators of short-term accommodation services are primarily obliged to obtain a free trade in accordance with the Trade Licensing Act, depending on the services related to the rental.²³ Income derived from short-term rental undoubtedly falls under income classified under the Income Tax Act.²⁴ The short-term rental itself can

²³ § 4 (1) and point 50 of Annex No. 4a to the Trade Licensing Act.

²⁴ E.g., Section 3 (1) (b) of Act No. 595/2003 Coll. on Income Tax.

be considered accommodation within the meaning of the Local Taxes Act and is thus subject to accommodation tax, which represents income for municipalities and cities.²⁵ However, there is no specific regulation of this type of non-professional or semi-professional type of accommodation in Slovakia, which results in its fragmentation potentially causing confusion among the landlords themselves.

Special regulations apply to accommodation, similarly to hotels and other establishments, but their practical enforceability is limited.²⁶ If the service provider provides Airbnb accommodation in an apartment building, the apartment building must meet the requirements of utility, hygiene, fire safety and civil protection.²⁷

Regarding the regulation of intermediation itself, we can refer to Regulation (EU) 2024/1028 of the European Parliament and of the Council of 11 April 2024 on the collection and provision of data relating to short-term accommodation rental services. This regulation introduces harmonised rules for data collection and sharing across the EU, regulates the registration obligations of hosts and the synergies of platforms, with the main objective of providing designated public authorities with better market monitoring data. The collected data should then allow them to regulate the housing market more effectively, take measures against illegal rentals and protect consumers. However, it is important to underline that the regulation itself does not directly give any new strong regulatory powers to the states or municipalities in which accommodation is placed but rather acts as a tool to gather information for the development and enforcement of existing or future national or local regulations. In addition, the Slovak legal system today does not give public authorities, including local governments, any special authorisations against operators and intermediaries of short-term accommodation.

3.3 Possible Elements of Regulation of Short-Term Accommodation

Currently, with regard to the principle of proportionality, in our opinion, it is not legally justified to limit or prohibit the provision of short-term rentals, primarily due to the absence of studies that directly name Airbnb as part of the problem of housing shortages in Slovakia.²⁸ Therefore, the argumentation for a ban or restriction in this case can hardly lie in the fact that there is a long-term housing problem in Slovakia directly related to

²⁵ Section 37 et seq. of Act No. 582/2004 Coll. on Local Taxes and Local Fee for Municipal Waste and Small Construction Waste.

²⁶ General technical requirements for construction, which are requirements for the zoning and technical design of construction, requirements for the construction and technical design of the building and requirements for the purposeful design of the building, for types of buildings are regulated by Decree No. 532/2002 Coll. of the Ministry of the Environment of the Slovak Republic, laying down details on general technical requirements for construction and general technical requirements for buildings used by persons with reduced mobility and orientation, as amended (hereinafter referred to as "**Decree No. 532/2002 Coll.**").

²⁷ See Section 43 (1) of Decree No. 532/2002 Coll. According to Section 43 (4) of the Decree, the living room must meet the requirements of the Slovak technical standard STN 73 4301. If the service is provided in a family house, it is subject to Section 45 of Decree No. 532/2002 Coll. Apart from the provision of Airbnb, it can be stated that the hotel, motel and guesthouse must meet the requirements for a short-term stay with their construction and technical arrangement and equipment, while the requirements are specified in Section 46 of Decree No. 532/2002 Coll.

²⁸ International evidence increasingly finds that Airbnb is associated with higher rents and house prices, and with lower hotel revenues, though magnitudes vary by city and identification strategy. For Slovakia, however, causal evidence is thin: existing work is largely descriptive and spatial (e.g., the concentration of listings and tourist "ghettos"), without quasi-experimental designs. Identification is challenging due to endogenous supply (hosts enter where rents are rising), time-varying tourism shocks, and the professionalisation of hosts. Accordingly, we use cautious phrasing ("is associated with", "may contribute to") and separate distributional effects (who gains/loses) from externality arguments (noise, crowding, housing availability). Also, there is a fact, that there is no database of bed occupancy of online platforms in Slovakia.

short-term accommodation mediation services. Nevertheless, it seems expedient to give local governments certain competences in relation to the operational and tax obligations of operators and intermediaries of short-term accommodation services.

Timely regulatory intervention can also be justified through the prism of a precautionary principle (Meinhard, 2014). Despite there being absence of evidence in particular case of Slovakia, as evidenced above, there is multiple evidence of serious harm done in other countries and cities, justifying a precautionary measure with proportionality in mind.

In the Czech Republic, there is currently a discussion about the upcoming legislation that will allow municipalities to better regulate services providing short-term rentals. The Czech Republic plans to create a similar system to gather data on tourism and allow for better and addressed regulation (eTurist), similar to the Croatian eVisitor system. The upcoming law should regulate short-term rentals, giving municipalities more control over what happens in apartment buildings on their territory. Municipalities will be able to determine the maximum number of people in an apartment based on the minimum area, limit the number of days during which short-term accommodation can be offered, and even set periods when it will be completely banned, for example during the busiest tourist seasons. Each rental offer will have to be registered and have a unique number, which will ensure better control and supervision. Municipalities will also be given the power to impose sanctions for violating the rules.

In order to examine the impact of short-term accommodation services on local conditions and the economy, the cities and municipalities most affected, as well as the state, could carry out a thorough analysis of the current situation. If the conclusion is that there is a shortage of housing (especially in Bratislava or Košice, in accordance with the findings from Gregorová above), while Airbnb and similar services contribute significantly to this, or other problematic phenomena occur, it would be desirable to adopt a legal regulation of the functioning of these services.

The regulation could include several elements, including key options to limit the provision of these services in selected areas of the municipality and to limit the length of short-term rentals. These measures are active in many cities, as we described above. The provision of short-term accommodation services, i.e. the de facto performance of business activities, in residential buildings intended for long-term housing, may lead to several conflict situations and may also conflict with zoning regulations, including conflict with the zoning plan of the municipality.

According to the applicable legislation, namely Act No. 25/2025 Coll. on the Construction Act and on the Amendment of Certain Acts (the Construction Act), as amended (hereinafter referred to as the "**New Construction Act**") and Act No. 200/2022 Coll. on Spatial Planning, as amended (hereinafter referred to as the "**Spatial Planning Act**"), it is crucial that in accordance with Section 68 (1) of the New Construction Act, the building can only be used for the purpose specified in the occupancy certificate. This permitted purpose must be in accordance with the binding part of the zoning documentation, which is verified already at the stage of permitting the construction by means of a binding opinion of the spatial planning authority within the meaning of Sections 24 and 24a of the Spatial Planning Act, while non-compliance is a reason for rejecting the application under Section 59 (1) (a) of the New Construction Act. The enforcement of compliance with the zoning plan is therefore carried out both preventively when permitting the construction and its changes, and subsequently through the control of compliance with the purpose set out in the occupancy certificate within the meaning of Section 72 (2) (a) of the New Construction Act.

Pursuant to Section 68 (1) and (2) of the New Construction Act, any change in the prevailing manner of use of the building, or a change affecting the surroundings or safety, requires a new decision of the building authority on the change in the use of the building. Although the law admits that a change in the use of individual premises does not have to be considered a change in the use of the entire building (and therefore does not require a decision), but only under the strict condition that, in accordance with Section 68 (1) of the New Construction Act, the original function of the building as a whole is preserved. It is therefore not a general possibility to change the purpose without consent in the case of "non-complex" changes. In addition, even if such a partial change was contrary to the zoning plan, it would not be admissible, as any proposed change of the purpose of use, which is contrary to the binding part of the zoning documentation, will be rejected by the building authority (Section 68 (5) of the New Construction Act). The use of a building for a purpose other than that specified in the occupancy certificate, or the implementation of a change of purpose without the necessary decision of the Building Authority, is punishable as an offence.²⁹ However, it is questionable to what extent such a situation is practically applicable, although in our opinion it is possible.

As can be seen, municipalities that carry out spatial planning as their original authority already have the power to decide on the use of the territory and thus real estate. However, this power is used in practice, especially in the case of authorisation, when using the building only sporadically and in cooperation with the building authority. For this reason, municipalities could have the possibility to determine additional rules for the use of apartments or non-residential premises for short-term accommodation services, for example, to determine the time and intensity of the provision of the service, or deviations for different parts of the municipality regarding local conditions and territorial policy of the municipality. It would therefore be a matter of regulating the provision of short-term accommodation itself, which could ultimately bring legal certainty to the operators of these services themselves. These regulatory tools can also give municipalities the opportunity to address problematic phenomena associated with this type of tourism, such as noise, vandalism, etc.

To operationalise such a power of municipalities, operators of the accommodation services themselves should be obliged to register and share data with the regulatory authority. The authorisation of the activity does not appear to be justified and proportionate. The registration obligation would minimise tax evasion, both in income tax and local taxes. In relation to the intermediaries of these services, it would be necessary to find a pan-European solution so that they primarily share data with the regulatory authority and, of course, provide their platform only to registered entities.

However, these measures should be taken at the level of municipalities that have appropriate knowledge of local conditions. Formally, municipalities would be able to regulate this area through GBRs, while providing the most flexible options possible (for example, restriction during certain periods). Appropriate information and registration obligations and the sharing of data on (informal) tourism in one register will help to better inform local governments about the state of tourism in their territory, which can not only regulate regulatory obligations, but also the accommodation tax, among other things.

²⁹ For natural persons under Section 79 (2) (d), (3) (c) and (4) (b) of the New Construction Act, or for legal entities and entrepreneurs under Section 80 (4) (c) of the New Construction Act. According to Sections 79 (6) and 80 (4) of the New Construction Act, these violations are subject to appropriate fines, which can range from EUR 30 to EUR 150,000, while in the case of repeated violations, a fine of up to twice the original amount may be imposed in accordance with Sections 79 (7) and 80 (11) of the New Construction Act.

Both cases in this paper concern platform-mediated urban services organised as two-sided markets. In both, local externalities (street obstruction and pedestrian safety for micromobility; housing availability, neighbourhood nuisance for short-term rentals) are significant, while governance frictions arise because critical data and enforcement levers sit with gatekeeping platforms. Recognising this shared architecture motivates similar regulatory logic: require registration and standardised data sharing (e.g., MDS for micromobility; EU Regulation 2024/1028 for short-term rentals), then target externalities with proportionate, evidence-based rules (Rochet and Tirole, 2003).

Table 2: Theory of change for short-term rentals³⁰

Lever	Mechanism	Targeted phenomenon	Primary metrics (city-level)
Host/property registration and unique number display	Formalises market, enables listing-level filtering/ takedown by platforms, auditable enforcement	Information asymmetry, enforcement gaps	Share of active listings with valid registration ID, takedown rate for non-compliant listings, audit pass rate
Platform data flows	Periodic platform – authority reports unlock monitoring, tax reconciliation and evidence building	Information asymmetry	Timeliness/coverage of platform reports, reconciliation gap vs. tourist-tax receipts
Day caps/zoning overlays	Shift host payoff towards long term rental/medium in tight markets, reduces short term rentals density in hotspots	Housing availability as externality	Short term rentals nights per 1,000 dwellings, short term rentals density tract, long term rentals rent/vacancy index
Platform collected tourist/accommodation tax	Levels playing field, reduces leakage, funds mitigation	Fiscal fairness, administrative efficiency	Effective tax coverage, receipts vs. hotel baseline, variance to platform reports
Use & nuisance rules (quiet hours, occupancy, building rules)	Deters problematic use, protects common areas in multi-unit buildings	Neighbourhood nuisance as externality	Noise/incident complaints per 1,000 short term rental nights, building-level incident rate
Platform cooperation & blocking of non-compliant listings	Programmable enforcement at the gatekeeper level, reduces illegal supply	Enforcement gaps	Share of blocked listings, time-to-block after notice, repeat-offender rate

4. OUTDOOR ADVERTISING

While freedom of expression closely linked to commercial activity cannot be questioned, the topic of outdoor advertising raises several regulatory challenges. First of all, it is the aspect of traffic safety, where advertising perceived by drivers becomes an attractor potentially depriving drivers of attention (Madenák et al., 2023). The second challenge is to a large extent subjective evaluation of the aesthetics of outdoor advertising carriers and their placement in the city (Azumah et al. 2021; Chmielewski et al., 2015). This is related not only to aspects of the context (where these advertising devices are placed), the quality of the advertising devices themselves, but also the

³⁰ Used sources: Hübscher and Kallert (2022); Von Briel and Dolničar (2020); Bei and Celeta (2023).

intensity of their occurrence (how many advertising devices are located in a given place and how often are they repeated?). The third issue is the content of the ad itself, which is largely a universal issue of all types of ads and therefore we will not deal with it further.³¹

4.1 Regulatory Approaches to Outdoor Advertising

Outdoor advertising undoubtedly belongs to the visual of cities and can have both a positive and a negative side. There are extensive studies examining various aspects of this advertising. According to a study from Warsaw, outdoor advertising in an urban environment generates significant externalities that can be perceived both positively and negatively. On the one hand, it provides information to residents and visitors and can increase the availability of products and services. On the other hand, however, it represents visual pollution that disrupts the aesthetics of public space and can reduce the quality of life. Research shows that limiting outdoor advertising in the form of billboards or advertisements on buildings can be perceived favourably by the public, while the willingness to pay for these regulations indicates the high social value of a cleaner urban environment (Czajkowski et al., 2022).

The legal regulation of outdoor advertising can be divided into two levels, regulation at the level of spatial planning and construction law and legislation at the level of taxes. From a comparative point of view, taxes on outdoor advertising devices are popular in Europe, such countries include Italy, Hungary, France, Lithuania. In most countries, this is the income of local government, which is based on the fact that these facilities primarily affect local governments as such. Such a tax is currently not regulated in Slovakia, so municipalities have the only option to regulate outdoor advertising, through a zoning plan. Therefore, most countries and cities resort to adjusting advertising from the position of spatial planning.

The regulation of outdoor advertising in Europe relies primarily on urban planning and zoning tools, which make it possible to adapt the rules to the specificities of individual cities and municipalities. In the Netherlands, the *omgevingsplan*, which, in combination with municipal ordinances, lays down the conditions for the installation of advertising devices, plays a key role. In France, local authorities have the explicit power to limit the size and number of billboards, as evidenced by the approach of cities such as Paris, Lyon and Nantes, where measures are being introduced to minimise visual congestion and protect cultural heritage. A similar trend is observed in Germany, the United Kingdom and Finland, where local planning authorities and zoning regulations ensure that the placement of advertisements meets the aesthetic and safety criteria of public spaces.

In general, Slovakia, in addition to specific regulation at the local level in the form of bylaws, joins most examples of countries that work with a zoning plan. Again, we can call these regulatory challenges of outdoor advertising negative externalities, and their cost can even be estimated (Czajkowski et al., 2022). The spatial-aesthetic aspects of outdoor advertising are commonly appreciated abroad, which has led to restrictions or bans in some cities. One of the first regulations of outdoor advertising was the U.S. federal Highway Beautification Act of 1965, which aimed to explicitly increase the

³¹ We can only refer to Act No. 147/2001 Coll. on Advertising and on the Amendment of Certain Acts, as amended (especially Section 3) and the Advertising Council. Pursuant to Section 3 of the Advertising Act, advertising, including outdoor advertising placed on an advertising structure, must not contain anything that disparages human dignity, offends national feelings or religious feelings, as well as any discrimination on the basis of gender, race and social origin, promotes violence, vandalism or vulgarity and incites or expresses consent to illegal actions, presents the nakedness of the human body in an offensive manner, etc. For an overview, see, e.g., Chung et al. (2022).

aesthetic quality of views from American highways (Weingroff, 2017). Lowery's study, on the other hand, dealt with the complex economic, legal, and political correlations of outdoor advertising regulation in Los Angeles over its nearly 140-year history (Lowery, 2016, pp. 191–209). In the UK, we can see a trend of regulation of outdoor advertising motivated by civil society in cities and local governments themselves (Greenhalgh, 2021, pp. 384–409). A complete ban on outdoor advertising has been introduced, for example, in São Paulo in Brazil (Mahdawi, 2015). In our context, we can cite a Polish-Slovak study from 2019, which stated the inadequacy of the regulation of outdoor advertising with regard to the protection of the visual identity of the most important parts of the country (Szczepańska et al., 2019, pp. 133–149).

4.2 Outdoor Advertising in Slovakia

To evaluating the adequacy of the current regulation of outdoor advertising placement (i.e. placement of advertising devices or advertising structures) in Slovakia, we propose to consider at least the following aspects:

1. Is there a regulation of the concept of outdoor advertising in the form of a special law or part of a law?
2. Is there regulation of operators of outdoor advertising services?
3. Is there a regulation specifically regulating the placement of outdoor advertising devices (or a narrower category of advertising construction)?
4. Is there a power for a public authority to determine binding rules on outdoor advertising at subordinate level?
5. What role do municipalities (cities) play in this context?

In Slovakia, there is no special legal regulation of outdoor advertising that would address the phenomenon comprehensively from a procedural, spatial or content point of view. Thus, the legislation can be found fragmented across several regulations, but there is no specific regulation of operators of outdoor advertising services. Again, as in the case of operators of micromobility and short-term accommodation services, this is also a free trade within the meaning of the Trade Licensing Act.³² We believe that there are no grounds for special (stricter) regulation of the operators themselves.

However, another issue is the placement or construction of the outdoor advertising itself in the public space. The placement itself will be subject to construction legislation with regard to the so-called advertising buildings, which represent the majority of outdoor advertising equipment within the meaning of Act No. 50/1976 Coll. on Spatial Planning and Construction Regulations (Construction Act) in the version effective until 31.03.2025 (hereinafter referred to as the "**Construction Act**") and information constructions under the New Construction Act. The construction of an advertising building is subject to notification to the building authority or a building permit in accordance with the Construction Act.³³

It can be stated that the New Construction Act has replaced the term advertising construction with the term information construction, while the definition has also been changed in terms of content. The process of permitting information construction is different from the processes under the Construction Act. For the purposes of this paper,

³² See paragraph 55 of Annex 4a to the Trade Licensing Act.

³³ On the definition of an advertising structure, see Section 43 (1) of the Commercial Code.

we focus only on the legal regulation of advertising constructions according to the Construction Act.³⁴

The starting point for the regulation of the placement of advertising structures is specified in the provision of Section 126 of the Construction Act, which requires to take specific requirements into consideration. If the proceedings under the Construction Act affect the interests protected by the regulations, then it is necessary to account for a binding opinion issued by the concerned authorities (e.g., cultural heritage authority may issue specific regulations under the Act No. 49/2002 Coll. on the Protection of the Monument Fund). The owner of the advertising building (builder) is then subject to the conditions for the implementation of the advertising construction as specified in the building permit.³⁵

4.3 Possible Elements of Outdoor Advertising Regulation

A particularly important regulation of the location of buildings in municipalities is spatial planning, which allows municipalities to determine the functional use and intensity of development in their territory. In Slovakia, at least two urban plans of cities have been adopted, which regulate the placement of advertising buildings in the territory of the Slovak Republic: the zoning plan of the capital of the Slovak Republic BA and the zoning plan of the city of Nitra. Municipalities can regulate the use of land in accordance with their original spatial planning power, as a result of which they can regulate the provision of this service in their territory. However, if we begin to assess the practical aspects of this regulation, especially the scale of the zoning plan of a larger city, the degree of detail and the possibilities of taking into account special situations in the area, as well as the time parameters of a possible change in the regulation, we argue that this instrument does not represent a completely adequate response to this type of negative externalities.

Allowing municipalities to regulate outdoor advertising through the means of regular GBRs provides municipalities with flexibility to react to changing conditions or even political contexts. In comparison, a change to the zoning plan (which takes form of a very procedurally regulated GBR in Slovakia) usually takes about two years, so the possibility of responding to changes in space and at a given time is reduced. The second problem related to the zoning plan is its scale (1:10,000), which we consider inappropriate for the regulation of advertising constructions. For example, the Bratislava's zoning plan regulates the distance of advertising constructions, which subsequently leads to the difficulty of interpreting the regulations in the zoning plan and to the absence of discretion of administrative authorities. The zoning plan also leaves very limited room for discretion of administrative authorities. The zoning plan appears to be an inadequate tool for the regulation of advertising buildings.

This regulation could therefore include the following procedural and formal elements. First, the rules for the placement of outdoor advertising could be set out in a map with elements of regulation similarly to the zoning plan, but the adoption or modification of this GBR would not be as demanding from a procedural point of view as

³⁴ Although the text does not deal with the legislation effective from 1.4.2025, which concerns the information construction within the scope of the New Construction Act, it can be stated that the conclusions of the third chapter are also applicable to information constructions. Smaller advertising devices that do not meet the criteria of an advertising structure (e.g., bipods with an advertising area, objects that are not firmly connected to the ground in accordance with the Road Act) are regulated in Section 9 of the Road Act. Defects in the passability of local roads intended for pedestrians or in the passability of sidewalks are obliged to be removed without delay by local road administrators. See Section 9 (2) of the Road Act.

³⁵ Alternatively, in the notification or occupancy decision.

amendments to the zoning plan. Second, the GBR could have a looser methodological structure that could respond more flexibly to various aspects and new forms of outdoor advertising, as opposed to relatively methodologically bound regulation in the form of a zoning plan. Third, compliance with such regulation would be communicated to the building authority directly in the digital map base issued by the municipality.³⁶ Finally, the regulation could include a new tax on advertising constructions with several variables (e.g., number of advertising spaces, size of advertising spaces, digital display/paper, location, etc.).

From a substantive point of view, such a regulation could contain rules for the placement of selected types of outdoor advertising, in particular zoning for individual size standards, frequency of occurrence, special rules for positioning outdoor advertising so that it does not interfere with movement, etc.³⁷

Table 3: Theory of change for outdoor advertising

Lever	Mechanism	Targeted phenomenon	Primary metrics (city-level)
Advertising construction permitting (under Construction Act)	Requires building permit or notification (subject to country-wide legislation)	Uncontrolled proliferation; safety risks from unregulated structures	Number of permit violations; share of compliant advertising buildings; average permit processing time
Placement of ads constructions	Requires a compliance with a light "zoning" plan (subject to city-wide legislation)	Excessive, overwhelming ads; visual clutter; perception of urban landscape; heritage protection	Density of ads per km ² ; qualitative decisions
Outdoor ads tax	Imposes a new municipal tax source, differentiated by size, location, medium	Excessive ads; lack of funds to cultivate public space	Tax revenue; decrease in ads density
<i>Ex post</i> review	Content review (subject to country-wide legislation)	Unsuitable ads	Number of content violations

5. CONCLUSION

The three presented case studies show that the current regulatory regimes are inadequate due to the complications that these services often cause in cities and municipalities. Any regulatory intervention should be proportionate and sensitively considered in the light of the basic premise of a free market economy, but the capacity of the public sector to intervene in the pursuit of the public interest should also be adequate and given to the appropriate entity.

In two of the presented case studies (micromobility and short-term accommodation), it is possible to use the possibility of marginally regulating the activities of intermediaries, the so-called "intermediaries" (or *gatekeepers*), who have the possibility to transfer the regulation directly to the target entities of the regulation (users of micromobility services, short-term accommodation operators). This is done not only through their own rules of use, but also through a technological solution – the code of

³⁶ Alternatively, it is conceivable that in addition to the regulation of the placement of advertising structures in accordance with the construction legislation, the consent of the municipality would be required for the placement of advertising equipment in a public space, i.e. publicly accessible, visible parts of the municipality, in the form of a binding opinion of the municipality (similarly to a binding opinion verifying compliance with the zoning plan of the municipality). However, this solution is administratively quite demanding.

³⁷ See, for example: Šingerová et al. (2022).

the platform itself (e.g., geofencing). The regulatory intervention is thus relatively targeted and effective.

In the study, we also present the opinion that the entities with regulatory powers in these situations should be local governments. This is because they have key information about the impacts (negative externalities) of the services in question on their territory and are therefore best placed to adopt appropriate rules. It goes without saying that the basic mandates and limits for these regulatory interventions must be determined by the legislator (or European legislation), which will leave only a limited space for local governments.

The EU level of intervention seems appropriate when it comes to enforcing certain duties of platforms, which may be difficult to enforce if the platforms do not have any physical element in a member state. Consider the case of platforms intermediating short-term accommodation which typically provide their services from a single member state. As regulatory interventions of individual member states towards platforms themselves may fall short of enforcement, the EU intervention should include obligations of platforms to follow any national rules, guarantee equal access and conditions to their services for accommodation providers across the single market, protecting consumer rights in respect to platforms and provide required data. In case of micromobility services and outdoor advertising, the EU regulation appears excessive.

On the other hand, member states should focus on accommodation providers who necessarily have a physical element present in respective countries, such as safety requirements; similarly, in case of micromobility the national legislation could deal with overall traffic safety rules and in case of outdoor ads set parameters of their placing adjacent to roads. Finally, we hold that municipalities are best placed to recognise the local impact therefore can regulate the intensity and certain details of the services.

The principle of extending the regulatory effect of local governments to some aspects of new services can also be applied in other cases: for example, the regulation of mobility services (shared cars, taxi services), the regulation of urban logistics, or the placement of so-called parcel boxes in which shipments are stored. This principle is also in line with the already established trend in the field of spatial planning and construction regulation in cities with specific needs and context in Slovakia. For example, the capital city of Bratislava and the city of Košice may, in accordance with the new spatial planning legislation, establish special conditions for the spatial arrangement of the territory and the functional use of the territory and the zoning and technical requirements for construction, which consider the specifics of denser cities with developed public transport.³⁸

We can discuss that the reason why cities in Slovakia are usually not given adequate tools to regulate selected types of business with undesirable effects is the lack of urban policy. Although there is a good understanding of regional problems, disparities and thus policies in Slovakia, urban politics is still underappreciated, as evidenced by its competence fragmentation.³⁹ Most likely, new challenges will be added in the urban space, so it is advisable to closely monitor these and provide municipalities with appropriate tools to address them.

³⁸ See Section 39(2) and (3) of Act No. 200/2022 Coll. on Spatial Planning.

³⁹ See, e.g., Šujan and Mazúr (2023, pp. 20–26).

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