

Primljen / Received: 30.1.2025

Ispravljen / Corrected: 12.6.2026.

Prihvaćen / Accepted: 19.6.2026.

Dostupno online / Available online: 10.10.2026.

Redundant norms in spatial planning acts: Uncertain approaches to the regulation of infrastructure systems

Authors:



Ante Senjanović, PhD. Arch
EKOMENA d.o.o., Zagreb, Croatia
ekomena@ekomena.hr



Prof. **Ivan Milotić**, dipl.iur..
University of Zagreb
Faculty of Law
ivan.milotic@pravo.hr
Corresponding author

Research Paper

Ante Senjanović, Ivan Milotić

Redundant norms in spatial planning acts: Uncertain approaches to the regulation of infrastructure systems

The paper establishes legal drafting as the framework for investigating the causes of insufficient clarity in spatial planning texts in the Republic of Croatia. It theoretically and empirically defines the fundamental characteristics of redundant spatial-planning content, the avoidance of which would make plan texts clearer and more transparent. An analysis of redundant content in the sections regulating the construction of infrastructure systems, based on a representative sample of local-level spatial plans, showed its systematic prevalence in the overall content, with a recognizable set of recurring content errors. Its presence can be explained by insufficient understanding of the subject and purpose of spatial-planning regulation within the Croatian spatial planning system.

Key words:

spatial plan, general legal act, legal norm, legal drafting, normative redundancy, infrastructure

Prethodno priopćenje

Ante Senjanović, Ivan Milotić

Normativne suvišnosti kao čimbenik otežane primjene prostornih planova prilikom gradnje infrastrukturnih sustava

U radu postavljeni su nomotehnički okviri za istraživanje uzroka nedostatne jasnoće tekstova prostornih planova u Republici Hrvatskoj. Teorijski i empirijski definirana su temeljna svojstva suvišnoga prostornoplanskog sadržaja, čijim bi izbjegavanjem tekst plana bio pregledniji, a time i jasniji. Istraživanjem suvišnog sadržaja u dijelovima koji uređuju gradnju infrastrukturnih sustava, na reprezentativnome uzorku prostornih planova lokalne razine, pokazana je njegova sustavna pretežnost u ukupnome sadržaju, s prepoznatljivim skupom sadržajnih pogrešaka. Njegova prisutnost objašnjiva je nedovoljnim poznavanjem predmeta i svrhe prostornoplanskog uređenja unutar hrvatskog sustava prostornog uređenja.

Ključne riječi:

prostorni plan, opći akt, norma, nomotehnika, normativna suvišnost, infrastruktura

1. Introduction

In spatial planning and building design, the clarity of the text of a spatial plan is frequently called into question, particularly with regard to what is or is not permitted when construction is undertaken in a given area and to what extent such matters need to be regulated at all. Although this topic is considered important, it is also too broad and insufficiently explored to be addressed comprehensively in a single article. Accordingly, this paper begins by presenting the fundamental aspects of the problem and its legal and legislative-drafting context, followed by an investigation of one particular aspect that the authors consider sufficiently evident and comprehensible to be addressed within a reasonable scope while simultaneously drawing attention to more complex issues of legislative drafting.

Based on the authors' experience, the chapters of spatial plans dealing with infrastructure systems and networks are often excessively extensive in relation to the actual content they contain. Redundant and unnecessary text does not contribute to the normative content; instead, it makes the text imprecise and difficult to navigate, thereby hindering the identification of important provisions, i.e. those that need and are intended to be regulated [1]. This, in turn, makes the text more difficult to interpret [2]. The length of a text may depend on the amount of content it conveys (the number and scope of the messages it is intended to communicate) and on how that content is expressed (the number of words used to convey each individual message). Using spatial plans at the local level as examples, this paper examines the amount of content, specifically redundant legal messages or legal norms that spatial plans frequently contain but should not contain. The objectives of the study are as follows:

- To confirm the impression that redundant norms are substantially and systematically present in chapters dealing with infrastructure.
- To demonstrate how the presence of redundant norms points to a fundamental misunderstanding of the purpose and methods of regulating infrastructure in spatial plans.
- To demonstrate the existence of a set of common errors and its recognisable structure, and to provide a basis for avoiding these errors by describing them.

2. Normative nature of the text in a spatial plan

A spatial plan is a general legal act (regulation) adopted for the purpose of implementing the Physical Planning Act [3]. Like any general legal act, it must necessarily be comprehensible [4], meaning that its addressee, i.e. any person required to comply with its provisions, must be able, ideally, to interpret its content as intended by the legislator [5]. In the case of a spatial plan, the addressees include everyone involved in the building permit issuance procedure, such as the investor, designer, administrative officer, public authority and other participants. The comprehensibility of the text of a legal act signifies the successful communication of a legal message [6], i.e. a requirement contained in the legal rules that constitute the general legal act [7]. A sufficiently clear and precise text makes its legal content recognisable and, consequently, enables the identification of conduct consistent with that content. This promotes legal certainty and reduces the risk of inconsistent application of the law and arbitrary decision-making [8]. In short, it enables legal entities to understand, accept and apply a general legal act more easily and reliably. In this regard, it is important to distinguish between the text of a regulation (its legal provisions, i.e. textual units expressing legal norms or parts thereof [9]), which is binding, and the explanatory text accompanying the regulation, which provides information about it and thereby assists in its interpretation but is not binding. In the field of physical planning, this distinction corresponds to the difference between the provisions governing the implementation of a spatial plan and the explanatory section of the spatial plan.

In a general legal act, any text whose content does not constitute a legal rule (legal norm) or is not relevant to such a rule is redundant [10]. A general legal norm is a binding requirement concerning conduct in a particular category of cases [11]. Its basic substantive structure can be expressed as follows: "if X, then Y ought to follow" (in an individual norm, the notion of "ought" may indicate an obligation to do something or act in a particular way, to permit something, or to prohibit something [12]). In other words, if a prerequisite is fulfilled, i.e. a particular type of fact occurs, a consequence must follow, consisting of specified conduct or a sanction. These elements must be recognisable for the text of the act to be considered comprehensible [13]. The easiest redundant passages to identify are those that do not express any new content of

a legal norm and may therefore be included in the explanatory section of a regulation but not in its operative provisions. Such passages include declarative statements, descriptions, explanations, justifications, statements of intent, unnecessary examples and cross-references, repetitions, and similar elements [14]. To identify further instances of redundancy, the following discussion establishes the boundary between what can and should constitute a legal norm and what cannot do so and is therefore always redundant. The fundamental prerequisite for a statement to qualify as a legal norm is that it lawfully requires certain conduct or establishes a criterion against which the acceptability of conduct must be assessed

Članak 95.b

(6) Unutar elektroničke komunikacijske zone u pravilu može se graditi samo jedan novi samostojeći antenski stup i povezana oprema sa mogućnošću prihvata više operatora, prema tipskom projektu odobrenom od Ministarstva zaštite okoliša, prostornog uređenja i graditeljstva. Područje zona elektroničke komunikacijske infrastrukture pokretnih zemaljskih mreža određenih za smještaj samostojećih antenskih stupova i povezane opreme određeno je polumjerom kružnice mjerenog iz središta zone. Izgradnja novih stupova izvan označenih lokacija ovim Planom u pravilu se ne planira. Iznimno, ako zbog specifičnih okolnosti na pojedinačnim lokacijama (npr. imovinsko-pravnih odnosa, topografije i drugih ograničenja) nije moguće lociranje samostojećeg antenskog stupa i povezane opreme u sklopu zone elektroničke komunikacijske infrastrukture (određene ovim Planom), njegovo lociranje može biti i izvan prikazane zone ali na udaljenosti ne većoj od 3000 m od središta Planom predviđene zone. To se odnosi samo na jedan stup koji mora zadovoljiti postavu opreme više operatora. Određivanje novih zona za izgradnju elektroničke komunikacijske infrastrukture (i povezane opreme) pored određenih u Planu moguće je uz prethodnu suglasnost Županijske samouprave i nadležne Hrvatska agencije za poštu i elektroničke komunikacije te eventualno i drugih nadležnih službi (u ovisnosti o prostoru) ali ne više od 5% od ukupnog broja zona određenih u Planu. Potreba za utvrđivanjem tih novih zona mora biti elaboratom opravdana.

Figure 1. Excerpt from the Spatial Plan of the Municipality of Udbina (PPUO Udbina), illustrating an excessively long paragraph consisting entirely of redundant norms

[15]. The requirement of lawfulness means that a legal act must be adopted through a lawful procedure and that the legal norms it contains must be integrated into the legal system, in which each regulation must govern a subject matter that it is authorised to regulate [16]. Such authorisation is always granted by another legal instrument, beginning with the Constitution of the Republic of Croatia. In the case of a spatial plan, this authorisation is conferred by the provisions of the Physical Planning Act that define the plan's subject matter and establish whether its adoption is mandatory or optional.

However, merely expressing a requirement or criterion is insufficient; it must also be applicable if it is to effectively influence conduct [17]. Applicability is influenced by various aspects of society and the legal system, including the consistency and acceptance of political, social and legal objectives; the selection of legal instruments for achieving those objectives; the ability and willingness of addressees

to comply with the norms; and the possibility of monitoring actual conduct and imposing sanctions in accordance with the norm [18]. In the implementation of spatial plans, such monitoring is mandatory: a spatial intervention is not permitted without a building permit, which may be issued only if, among other requirements, the intervention complies with the conditions for implementing spatial interventions established by the spatial plan and with the applicable special regulations [19]. It should be emphasised that a building permit is not the only legal instrument through which a spatial plan is implemented. Other acts are also issued on the basis of compliance with the conditions for implementing spatial interventions; however, for the sake of clarity, this paper refers exclusively to building permits. Establishing the conditions for implementing spatial interventions within the area covered by a spatial plan falls within the plan's subject matter [20] and thus constitutes the only content that the plan is authorised to regulate as a matter of law. Although this is a simplified account, it is fundamentally correct. A spatial plan may also prescribe protection measures, measures for urban rehabilitation, transformation or land readjustment, as well as guidelines for the preparation of spatial plans for smaller areas. However, all these elements, except for land readjustment measures, which apply to land readjustment procedures rather than construction, must be expressed either through the conditions for implementation or through restrictions on the permissible values of the parameters to be established in a spatial plan for a smaller area.

Nevertheless, although a spatial plan is required to establish the conditions for implementing spatial interventions, it is not authorised to regulate every such condition. During the building permit issuance procedure, some conditions are established as special conditions. These are issued by public authorities pursuant to special regulations, and the authorities monitor their implementation by verifying compliance in the design documentation [19]. Matters governed by these regulations fall within their respective subject matter, meaning that the authority to

Članak 99.

Prometnu cestovnu mrežu treba graditi, opreмати i održavati u skladu s važećim zakonskim i tehničkim propisima za ceste, određenim prometno – tehničkim i sigurnosnim standardima i prema posebnim uvjetima nadležnog javnopravnog tijela.

Na raskrižjima i drugim mjestima gdje se očekuje prelazak pješaka, biciklista, osoba s invaliditetom i smanjene pokretljivosti preko kolnika, trebaju se ugraditi spuštani rubnjaci (ili jednakovrijedni elementi za savladavanje barijera) i ostali elementi propisani važećim Pravilnikom o osiguranju pristupačnosti građevina osobama s invaliditetom i smanjene pokretljivosti tako da na njima nema zapreka za kretanje niti jedne kategorije stanovništva.

Kod gradnje novih ulica i rekonstrukcije postojećih ulica obavezno je planiranje vatrogasnih pristupa koji imaju propisanu širinu, nagibe, okretišta, nosivost i zaokretne radijuse, a u skladu s važećim Pravilnikom o uvjetima za vatrogasne pristupe.

Ovisno o kategoriji prometnice, definiraju se pojedini elementi poprečnog presjeka ceste u skladu s važećim Pravilnikom o uvjetima za projektiranje i izgradnju priključaka i prilaza na javnu cestu.

Sva međusobna križanja glavnih mjesnih ulica moraju biti izvedena u skladu sa smjernicama i normama za projektiranje i građenje raskrižja u nivou.

Postojeća i planirana raskrižja mogu se, unutar planiranih koridora (ovisno o rangi prometnice), planirati i izvoditi kao klasična ili kružna raskrižja.

Za građevine prometne namjene dopušta se izgradnja potpornih i obložnih konstrukcija visine do 6,0 m (bez visine temelja). Ukoliko je potrebno izgraditi viši zid, isti je potrebno izvesti u terasama, s horizontalnom udaljenošću zidova od min 1,5 m, a teren svake terase ozeleniti.

Figure 2. Excerpt from the Urban Development Plan of Slunj (UPU Slunj), all norms, except those contained in the final paragraph, are redundant because they merely inform the reader of the obligation to comply with special regulations, an obligation that exists independently of the spatial plan

regulate them is conferred by those regulations rather than by the spatial plan, except to the extent that the special regulations require the spatial plan to regulate a particular aspect of the subject matter concerned.

The foregoing considerations make it possible to identify the fundamental characteristics of a redundant norm in a spatial plan, i.e. a statement that merely imitates a norm. These characteristics are as follows:

1. Ineffectiveness: the text does not express content relevant to a legal norm, i.e. to a condition for implementing a spatial intervention.
2. Non-enforceability: the norm contained in the text cannot be applied in the building permit issuance procedure.
3. Lack of relevance to the subject matter – the norm contained in the text does not fall within the subject matter of a spatial plan, meaning that the plan is not authorised to regulate it, or the matter is governed by a special regulation.
4. Invalidity: owing to errors in legislative drafting, the text lacks coherent normative content.

3. Fundamentals of infrastructure planning in spatial plans

The concept of infrastructure, as defined by the Physical Planning Act and the Ordinance on Spatial Plans [21], encompasses transport infrastructure (roads, railways, maritime and inland waterway infrastructure, and aviation infrastructure), energy infrastructure (oil, gas and electricity infrastructure), and water management infrastructure (water supply, wastewater drainage, water regulation and land reclamation structures). A spatial plan should ensure the development and siting of infrastructure, i.e. the provision of infrastructure within the planned area [20]. The cartographic symbols specified in the Ordinance identify the types of infrastructure facilities whose spatial distribution may be regulated by a spatial plan: predominantly linear facilities (roads, railway lines, utility lines and pipelines); facilities intended for handling the materials conveyed through linear infrastructure (stops,

network equipment, storage facilities, terminals, and facilities for supply, treatment and discharge); and similar facilities (ports, transmitters, control facilities, and the like) [21].

A building area must be developed, i.e. made suitable for the construction and use of buildings. Existing infrastructure is one of the essential prerequisites for a building area or plot of land to be considered serviced and ready for development. Accordingly, a spatial plan must ensure the possibility of constructing at least the basic infrastructure, including a traffic surface providing access and facilities for wastewater drainage [20].

The conditions for implementing spatial interventions that a spatial plan is required to regulate are specified in the Ordinance and indicate how the legislator envisages the regulation of construction through spatial plans, namely by defining the permissible characteristics of buildings, primarily their location, size and design, as well as the arrangement of the building plot [21]. However, the content is divided into "rules for the implementation of spatial interventions" under Chapter "1. Conditions for the Implementation of Spatial Interventions for Which Land Use Has Been Designated", which differs from Chapter "2. Conditions for the Implementation of Infrastructure Interventions". The existence of this second chapter implies that infrastructure interventions should not necessarily be regulated in accordance with the rules for the implementation of spatial interventions. Nevertheless, this is neither explicitly stated nor is it clear what the conditions for implementing infrastructure interventions should contain or whether their scope is subject to the same thematic limitations as those set out in the first chapter.

The spatial planning system established by the Ordinance allows for the designation of multiple areas subject to specific implementation rules within the boundaries of a spatial plan. The rules applicable to different areas contain and thereby establish different implementation conditions. On this basis, it may be assumed that Chapter 2 should at least regulate the conditions that apply uniformly to all infrastructure facilities within the plan area, while Chapter 1 may establish specific conditions where necessary for particular areas within that boundary. A spatial plan should determine the location of infrastructure facilities and the measures required for their construction [20]. In principle, these measures, as defined through the implementation conditions, could also prescribe construction methods for infrastructure facilities other than their location, size and design. However, the authors consider that they should not do so. Although the legislator has not clearly defined which matters the conditions for implementing infrastructure interventions must or may regulate, it is possible to identify, on the basis of the subject matter and content of the special regulations governing infrastructure, those matters that should not be regulated by the conditions of a spatial plan because they are already covered by special regulations.

The construction of infrastructure facilities, particularly utility lines, is extensively governed by special regulations applicable throughout the entire country and is therefore subject to standardised requirements. It is self-evident that the technical requirements for constructing, for example, wastewater drainage facilities or electricity transmission and distribution lines do not vary from one municipality to another. These regulations also ensure the proper functioning of individual infrastructure systems. The fundamental requirements for buildings, as established by the Building Act, apply to all buildings, including

infrastructure facilities, irrespective of the provisions of a spatial plan. They constitute basic construction principles aimed at preventing undesirable impacts caused by buildings. The legislator has ensured compliance with these principles through the adoption of various special regulations, including acts, government decrees, ordinances and technical regulations, thereby already determining and assessing the appropriate level of detail required for the legal regulation of the construction of such facilities.

As an example, this paper examines the regulation of electronic communications infrastructure, which is primarily governed by the *Electronic Communications Act*, which, among other matters, regulates the construction and installation of electronic communications infrastructure and associated equipment. This regulatory framework is further elaborated through a series of subordinate legal acts specifying the technical, administrative and other requirements for construction and installation. Special conditions are issued on the basis of these regulations during the construction approval procedure. Even a brief review of the Central Catalogue of Official Documents of the Republic of Croatia reveals at least six such ordinances governing the technical requirements for the construction of cable ducts, fibre-optic and distribution networks; the installation of radio stations; protection zones for electronic communications infrastructure; collocation and the shared use of electronic communications infrastructure; and the connection of infrastructure within buildings to the wider network. These include *the Ordinance on Technical Requirements for Cable Ducts* (Official Gazette No. 139/23), *the Ordinance on Fibre-Optic and Distribution Networks* (Narodne novine No. 63/24), *the Ordinance on the Procedure and Conditions for Determining the Zone of Electronic Communications Infrastructure and Other Associated Equipment, the Protection Zone and the Radio Corridor, and the Obligations of Operators, Investors in Works or Buildings* (Narodne novine No. 146/24), *the Ordinance on the Procedure and Conditions for Access to, Collocation in and Shared Use of Electronic Communications Infrastructure and Other Associated Equipment* (Narodne novine No. 66/23), *the Ordinance on the Procedure and Conditions for Access to and Use of Access Points and Physical Infrastructure within Residential and Commercial Buildings* (Narodne novine No. 2/24), and *the Ordinance on Special Conditions for the Installation and Use of Radio Stations* (Narodne novine No. 72/23). In addition, *the Decree on Criteria for the Development of Electronic Communications Infrastructure and Other Associated Equipment* (Narodne novine No. 42/25) has been adopted. It specifies what must be planned in a spatial plan, which relates almost exclusively to the siting of infrastructure facilities.

Furthermore, a provision of the Physical Planning Act allowing electronic communications infrastructure to be constructed contrary to a spatial plan, provided that it lies within the infrastructure corridor of another infrastructure facility and is constructed in accordance with the technical requirements applicable to such facilities, supports the assumption that technical requirements do not fall within the subject matter of a spatial plan. Instead, they are governed by special regulations, technical standards and professional expertise.

Accordingly, the authors consider that a spatial plan may supplement this general regulatory framework for infrastructure only through its own provisions aimed at achieving the planning objectives for the area concerned. Such provisions should be limited to the available regulatory instruments for preventing conflicts in land use and undesirable impacts

of infrastructure facilities, namely conditions governing their location, size (including capacity) and design. This also includes the site-specific application of certain requirements arising from special regulations on the protection of the environment, property and people, or on the functioning of other systems, where such requirements need to be specified in response to particular spatial characteristics and to achieve specific planning objectives for the area concerned, or where the relevant special regulation explicitly requires the spatial plan to do so.

4. Normative redundancies in a selected sample of spatial plans in the Republic of Croatia

4.1. Spatial planning sample and research methodology

The study was conducted on spatial plans prepared for the purpose of transformation into a digital format compliant with the new Ordinance on Spatial Plans. The sample consists of 13 plans: seven spatial plans of municipalities and towns (PPUO/G), one general urban plan (GUP), and five urban development plans (UPU). According to the NUTS classification of level 2 statistical regions, six plans are from Pannonian Croatia, five from Adriatic Croatia, and two from Northern Croatia.

The presence of redundant content was assessed based on the proportion of redundant norms in the content of each spatial plan, expressed as a share of the total number of norms. A genuine spatial planning norm is defined as any statement expressing a single condition for the implementation of a spatial intervention. A redundant norm, by contrast, is any statement that appears to serve as a norm by virtue of its inclusion in a spatial plan, although, as demonstrated in the preceding section, it does not fulfil that function.

To obtain information on potential interactions between the subject matter being regulated and the proportion of redundant norms, the infrastructure-related content of the spatial plans was divided into four thematic groups (hereinafter referred to as TGs): transport (P), communications (C), energy (E), and water (W). In plans that have not undergone transformation, this content is found in Chapter 5, entitled "Conditions for Determining Corridors or Routes and Areas for Transport and Other Infrastructure Systems", or "Conditions for the Development, Construction, Reconstruction and Provision of Transport, Telecommunications and Utility Networks, Including Associated Facilities and Areas". Following transformation, the corresponding content is found in Chapter 2, "Conditions for the Implementation of Infrastructure Interventions". Given the variability of content across the plans, this classification is the only one applicable to all the analysed examples, since certain systems are not always present (e.g. rail or air transport, gas networks, and watercourse regulation), while others are not always clearly distinguished from one another (e.g. water supply and wastewater drainage).

Based on the fundamental characteristics of redundancy defined in Section 2.1, redundant norms were classified according to the errors through which these characteristics manifest themselves. The characteristic of non-enforceability was excluded from the classification because it was considered that the question of whether a norm is applicable in the building permit issuance procedure has not yet been sufficiently clearly resolved to allow for consistent assessment.

Among the norms considered potentially non-enforceable, only a very small proportion could not simultaneously be classified under one of the other error categories described below. It was therefore concluded that this issue does not significantly affect the present study.

Accordingly, the identified set of redundant norms is structured primarily according to the fundamental characteristics of redundancy and subsequently subdivided based on observed similarities among redundant norms, which are classified into eight error categories (ec):

1. Norms unrelated to the subject matter:

- 1.1. ec1 (errors concerning the subject matter): Provisions regulating matters unrelated to the characteristics of a building or structure (e.g. the sale of electricity generated by solar panels installed on a building [22], the requirement for manual excavation when laying cable lines [23], or the obligation of equipment manufacturers to provide a certificate of conformity [24]). As in the case of ec3, such matters are also governed by special regulations. However, the decisive criterion for assigning a provision to this category is the absence of any basis for considering the matter to fall within the subject matter of a spatial plan.
- 1.2. ec2 (conditions for implementing other types of spatial interventions): Provisions that do not concern infrastructure systems but instead regulate connection requirements or construction conditions for other types of buildings and structures (e.g. the required number of parking or garage spaces on a building plot [25], or the distance between the building regulation line and the road centreline [26]). The subject matter of the norm falls within the scope of a spatial plan, but not within the scope of the particular textual section dealing with infrastructure facilities.
- 1.3. ec3 (content already regulated elsewhere): Provisions regulating matters governed by special regulations. This category does not include matters already regulated elsewhere in the same spatial plan, as the authors consider such cases to be primarily errors of expression rather than errors of substance. Errors of expression are beyond the scope of this study. Examples include provisions regulating the procedure for obtaining a building permit [24] or restrictions on interventions within the water domain [27]).

2. Ineffective norms

- 2.1. ec4 (informative content): Statements informing the reader about the intention [28], method [29] or content [30] of the regulation, explaining self-evident aspects of the design task [31], or describing other matters that can be taken for granted.
- 2.2. ec5 (unnecessary permissions): Provisions permitting something that is not prohibited (e.g. the installation of electronic communications equipment on existing structures [22] or the installation of equipment for exploiting renewable energy sources to meet a building's energy needs [23]).
- 2.3. ec6 (redundant references): References to the requirement to comply with a special regulation or plan (e.g. the requirement that carriageway width comply with a special regulation [32]).

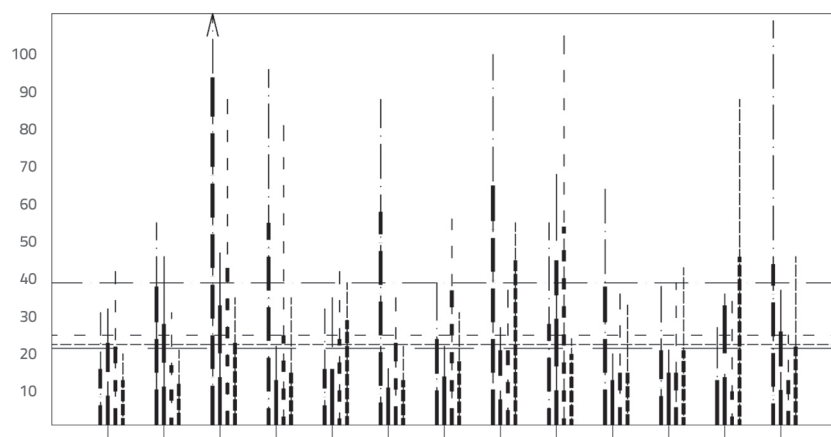


Figure 3. Number of norms by thematic group (The vertical lines are grouped by individual spatial plans, with the thematic groups arranged in the following order: transport, communications, energy and water. Thicker lines represent redundant norms, while thinner lines represent all norms. Horizontal lines indicate the average number of redundant norms for each thematic group)

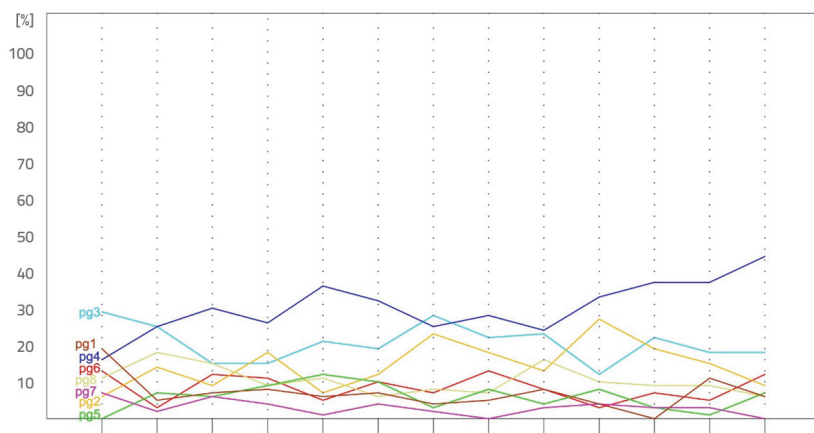


Figure 4. Changes in the proportions of individual error categories relative to the total number of redundant norms, by spatial plan

3. Defective norms

- 3.1. *ec7* (incorrect attribution of authority): References to an incorrect special regulation [30] or to a public authority that does not have the legal competence to regulate the matter attributed to it [33].
- 3.2. *ec8* (other errors): Provisions that fall within the relevant subject matter but are ineffective owing to various legislative-drafting errors. Examples include unlawfulness [34], reproducing rather than applying guidelines for the preparation of a spatial plan [24], repetition, unclear [25] or inconsistent content, and provisions that, for example, permit spatial interventions contrary to the designated land use [26].

4.2. Analysis and results

More than half of all norms (N) were classified as redundant (R):

- Of the 2,531 norms, 1,415 were redundant, meaning that redundant norms accounted for 55.9 % of all norms in the sample.

The proportion varied across individual plans, ranging from a minimum of 45 % to a maximum of 69 %, with a median proportion of 56.3 %. The average number of norms per plan was 195, with the lowest and highest counts being 121 and 370, respectively. The average number of redundant norms per plan was 109, ranging from a minimum of 68 to a maximum of 198. The coefficient of variation of the proportions across the plans was 12.4 %. This relatively low degree of variability indicates that redundant norms were consistently present in the plans examined.

The most prevalent thematic group among all norms was transport, which also accounted for the largest proportion of redundant norms relative to the other thematic groups.

- Transport norms accounted for 36 % of all norms, while redundant transport norms accounted for 35.1 % of all redundant norms.

The highest proportion of redundant norms within an individual thematic group was found in communications, whereas the lowest was found in energy.

- Redundant communications norms accounted for 66.8 % of all communications norms, compared with 58.3 % for water-related norms, 54.6 % for transport norms, and 48.3 % for energy norms.

The coefficients of variation for the individual thematic groups also indicated relatively low levels of variability, suggesting that redundant norms were consistently present across the groups. Nevertheless, a clear distinction can be made between the variability in the occurrence of redundant transport norms (RP) and redundant

communications norms (RC), with coefficients of variation of 15.5 % and 16.4 %, respectively, and the variability in redundant energy norms (RE) and redundant water-related norms (RW), with coefficients of 24.6 % and 23.2 %, respectively. The former indicates a greater degree of similarity in regulatory approaches across the plans, whereas the latter suggests somewhat greater differences in how these subject areas are regulated. In addition to the thematic groups analysed, there is a category of common norms that appears at the beginning of the relevant chapter in some plans and applies to all infrastructure systems. However, these norms account for only 3.4 % of all norms and are therefore not examined further.

The findings demonstrate that a substantial, majority proportion of the norms regulating infrastructure systems in the sample is redundant and that this phenomenon occurs across all thematic groups. This confirms the authors' assumption that redundant norms represent a systematic feature of spatial plans.

The structure and content of redundant norms concerning electronic communications infrastructure, where provisions addressing matters already regulated elsewhere and informative content predominate, provide

a particularly striking illustration of this problem. This thematic group also exhibits the highest proportion of other errors among all thematic groups, particularly norms that conflict with the applicable regulatory framework governing the subject matter. These findings demonstrate how the formulation of spatial planning norms concerning subject matter that is already extensively regulated leads to repetition, redundancy and inconsistencies. As a result, the normative content becomes difficult to navigate and understand, and consequently difficult to apply, reducing the effectiveness of the spatial plan during implementation.

Redundant norms concerning energy infrastructure contain the lowest proportions of conditions for implementing other types of spatial interventions and content already regulated elsewhere, but the highest proportion of informative content compared with the other thematic groups. The extent to which this subject area is regulated by special regulations can be considered comparable to that of transport and lower than that of communications and water. The error-category (*ec*) structures of energy and transport are, in fact, comparable, except that transport contains a substantial proportion of conditions for implementing other types of spatial interventions.

According to the identified reasons for redundancy:

- Norms unrelated to the subject matter (*ec1*, *ec2*, *ec3*) account for 23 % of all norms and 41 % of redundant norms
- Ineffective norms (*ec4*, *ec5*, *ec6*) account for 25.2 % of all norms and 45 % of redundant norms.
- Defective norms (*ec7*, *ec8*) account for 7.8 % of all norms and 13.9 % of redundant norms.

Individual errors could, in some cases, be assigned to more than one category. In particular, norms classified as *ec2* can frequently also be classified as *ec5*, especially in the case of wastewater drainage. However, the authors decided to classify each redundant norm only once, according to its dominant error. For example, if the content of a statement does not concern the relevant infrastructure system, it is immaterial whether it is also already regulated by a special regulation or merely provides information.

The distribution of error categories (*ec*) does not vary substantially across the thematic groups, with the exception of *ec2*, which occurs particularly frequently in transport norms, accounting for 24.1 % of redundant transport norms (RP), primarily in provisions regulating the number and arrangement of parking or garage spaces required for a spatial intervention. It is also relatively common in water-related norms, accounting for 18.3 % of redundant water-related norms (RW), primarily in provisions regulating wastewater drainage methods.

The most prevalent error categories are *ec4* (informative content) and *ec3* (content already regulated elsewhere). Together, they account for 28 % of all norms and 50 % of redundant norms, and they are the most common categories in every thematic group except transport, where *ec* replaces *ec3*. Norms classified as *ec4* account for 16.8 % of all norms and 30 % of redundant norms. The least prevalent categories are *ec1* (errors concerning the subject matter), *ec5* (unnecessary permissions) and *ec7* (incorrect attribution of authority). Together, they account for 9 % of all norms and 16.2 % of redundant norms. The *ec7* category is the smallest, accounting for only 1.7 % of all norms and 2.9 % of redundant norms.

The intermediate group consists of *ec6* (redundant references), which occurs consistently across all thematic groups; *ec2* (conditions for implementing other types of spatial interventions), which is particularly prevalent in transport and water-related norms; and *ec8* (other errors),

which is particularly prevalent in communications norms. Together, these categories account for 19 % of all norms and 33.9 % of redundant norms.

In summary, the largest proportion of redundant norms consists of norms unrelated to the subject matter, i.e. those that do not fall within the scope of a spatial plan or its chapter on infrastructure systems. Among these, provisions addressing matters already regulated by special regulations are particularly prominent. The other major category comprises ineffective norms, i.e. provisions that cannot be enforced or that introduce no new normative content, particularly those providing merely informative content.

The proportion of norms unrelated to the subject matter indicates that the share of redundant norms within a thematic group correlates with the extent to which the corresponding spatial planning subject area is regulated by special regulations. Although this correlation may appear self-evident at first glance, it would not exist if the spatial plans analysed did not systematically reproduce or regulate matters that fall within the scope of other regulations and are already governed by them. The existence of this correlation, together with the substantial amount of text describing what a plan regulates or should regulate, and why, rather than prescribing binding requirements for construction, indicates that many individuals involved in preparing and adopting spatial plans do not fully understand the boundary between the scope of spatial planning and that of special regulations governing certain aspects of spatial planning. It also points to an incomplete understanding of the prescriptive nature of legal norms and spatial planning provisions.

The relatively consistent distribution of errors across the plans, together with the fact that these errors can be classified systematically, provides a structured description of a set of recurring errors. The authors believe that more detailed investigations into the structure of this set could help identify the reasons for their occurrence more precisely and provide recommendations for reducing their prevalence.

5. Planning provisions: Simplicity and lack of clarity

To demonstrate that the problematic aspects of infrastructure planning in Croatian spatial plans are not an inevitable consequence of the need to regulate infrastructure construction in detail through spatial plans, and that the regulation of infrastructure systems is neither an inherent nor an unavoidable component of spatial plans that must be addressed in the manner traditionally adopted, this paper presents the Austrian system of spatial planning and development.

Spatial planning falls within the jurisdiction of Austria's federal provinces. Consequently, there is no single Austrian spatial planning system, but rather nine distinct systems that share common fundamental characteristics [35]. In the system of Upper Austria [36–38], infrastructure, apart from transport areas and renewable energy sources, is not treated as a major subject of spatial plans. Instead, it is addressed through the reservation of land were considered important (infrastructure structures other than buildings may be constructed on land designated for any use), strategic requirements for meeting supply needs and achieving other objectives in the binding local development concept (*Örtliches Entwicklungskonzept*), and provisions governing access to building plots in the development plan (*Bebauungsplan*). Unlike the Croatian system, in which the textual component of a plan is primary and the graphical component is regarded as an annex, the graphical component is primary in the Austrian system. Consequently, spatial plans focus primarily on the spatial allocation of land uses and structures, while the textual component serves as a concise supplement that clarifies and

IZVORNI TEKST	PREDLOŽENI TEKST
5.2.1. Vodove sustava telekomunikacija treba polagati kabelski ili kao distributivnu kanalizaciju u prvom podzemnom sloju koridora javnih prometnih površina. 5.2.2. Pri polaganju kabela treba ako je to moguće izbjegavati površine kolnika te koristiti pješačke hodnike, razdjelne pojase zelenila i sl. Minimalna širina telekomunikacijskih pojasa je 1,0 m. 5.2.3. Pri paralelnom vođenju te na mjestima križanja s drugim vrstama vodova komunalne infrastrukture obavezno je poštivati minimalne razmake u situativnom i visinskom smislu odnosno vrijednosti određene propisima. 5.2.4. Telekomunikacijska postrojenja treba locirati u blizini prometnih koridora kako bi na njih bio osiguran jednostavan i neposredan priključak. 5.2.5. Posebnim uvjetima građenja biti će određeni svi detalji polaganja pojasa telekomunikacijskih uređaja za prijenos kao i uvjeti priključenja. 5.2.6. Križanje trase s drugim podzemnim vodovima previdjeti 0,5 m ispod vodova HT-a, a paralelno vođenje na minimalnom odstojanju od 1 m. 5.2.7. Potrebno je osigurati koridor za DTK kako za postojeću uličnu mrežu tako i tamo gdje je predviđena gradnja i uređenje osnovne ulične mreže i to obostrano u pješačkim hodnicima. 5.2.8. Distributivnu kanalizaciju graditi u skladu s posebnim propisima, izvođenjem montažnih bet. zdenaca i PVC cijevi Φ 110; Φ 50; u koje će se uvlačiti telekomunikacijski kabeli. 5.2.9. Potrebno je predvidjeti različite lokacije unutar zone zahvata za ulične kabine, dimenzija (dxšxv) 2mx1mx2m, koji bi bili smješteni oko središta predmetnog područja, te pokrivali područje unutar cca 500 m. 5.2.10. Predvidjeti po potrebi zaštitu i izmještanje postojećih tk kapaciteta na području zone zahvata. 5.2.11. Elektronička komunikacijska infrastruktura i povezana oprema, postavlja se temeljem Odredbi Prostornog plana Zagrebačke županije, te na temelju drugih važećih zakonskih propisa. Elektronička komunikacijska infrastruktura prikazana je na kartografskom prikazu 1.2. Promet, pošta i elektronička telekomunikacija. Samostojeće antenske stupove u pravilu treba locirati izvan građevinskog područja naselja. Pri određivanju detaljnog položaja samostojećeg antenskog stupa izvan građevinskih područja naselja primjenjuju se sljedeći uvjeti: - poštivati zatečene prirodne vrijednosti i ograničenja, - poštivati karakteristične i vrijedne vizure, slike mjesta i ambijentalne vrijednosti. Samostojeći antenski stup unutar građevinskih područja naselja može se planirati u industrijskim i poslovnim zonama. Iznimno, samostojeći antenski stup moguće je planirati unutar područja stambene i mješovite namjene gdje su građevine pretežito (80% i više) u visini koja ne prelazi prizemlje i dva kata, ako kvalitetno pokrivanje radijskim signalom planirane elektroničke komunikacijske zone polumjera do 500 m ne bi bilo moguće postavljanjem antenskih prihvata. Pri iznimnom određivanju detaljnog položaja samostojećeg antenskog stupa unutar građevinskih područja naselja, primjenjuju se sljedeći uvjeti: - samostojeći antenski stup ne gradi u neposrednoj blizini zdravstvenih, predškolskih i školskih ustanova te ustanova socijalne skrbi, - poštivati zatečene prirodne vrijednosti i ograničenja, - poštivati karakteristične i vrijedne vizure, slike mjesta i ambijentalne vrijednosti. Osim navedenih mjera, pri lociranju samostojećih antenskih stupova i antenskih prihvaća potrebno je poštivati posebne propise kojima se štiti zdravlje ljudi i ograničava razina zračenja. 5.2.12. Novu elektroničku komunikacijsku infrastrukturu za pružanje javnih komunikacijskih usluga putem elektroničkih komunikacijskih vodova, odrediti planiranjem koridora primjenjujući sljedeća načela: - za naselja: podzemno i/ili nadzemno u zoni pješačkih staza ili zelenih površina, - za međunarodno, magistralno i međumjesno povezivanje: podzemno sljedeći koridore prometnica ili željezničkih pruga. Iznimno kada je to moguće, radi bitnog skraćivanja trasa, koridor se može planirati i izvan koridora prometnica ili željezničkih pruga vodeći računa o pravu vlasništva. - za izgrađenu elektroničku komunikacijsku infrastrukturu za pružanje javnih komunikacijskih usluga putem elektroničkih komunikacijskih vodova, planirati dogradnju, odnosno rekonstrukciju te eventualno proširenje radi implementacije novih tehnologija i/ili kolokacija odnosno potreba novih operatera, vodeći računa o pravu zajedničkog korištenja od strane svih operatera. 5.2.13. Novu elektroničku komunikacijsku infrastrukturu za pružanje komunikacijskih usluga putem elektromagnetskih valova, bez korištenja vodova, odrediti planiranjem postave baznih stanica i njihovih antenskih sustava na antenskim prihvataima na izgrađenim građevinama i rešetkastim i/ili njeđocjevnim stupovima u naseljima i izvan njih, bez detaljnog definiranja (točkastog označavanja) lokacija za: - naselja i to posebno za brdovita i posebno za ravničarska područja; vodeći računa o mogućnosti pokrivanja tih područja radijskim signalom koji će se emitirati radijskim sustavima smještenim na te antenske prihvate (zgrade i/ili stupove) uz načelo zajedničkog korištenja od strane svih operatera ili koncesionara gdje god je to moguće.	Članak I. (1) Elektroničke komunikacijske vodove treba graditi kao kabelsku kanalizaciju unutar javne prometne površine. (2) Treba ih smjestiti van kolnika, ispod nogostupa ili zelene površine. (3) Unutar građevinskog područja ih treba smjestiti obostrano. Članak II. Distribucijske čvorove treba rasporediti dako da im pripadajuće distribucijsko područje bude najveće širine od oko 500 m. Članak III. (1) Antenski stup treba biti smješten unutar zone elektroničke komunikacijske infrastrukture, i to van građevinskog područja naselja ili unutar površine proizvodne ili poslovne namjene. (2) Iznimno od navedenog u stavku (1), antenski stup smije biti smješten unutar površine stambene ili mješovite namjene, kada: 1. kvalitetno pokrivanje radijskim signalom planirane elektroničke komunikacijske zone polumjera do 500 m ne bi bilo moguće postavljanjem antenskih prihvaća, i 2. građevine unutar te površine pretežno (u 80% slučajeva) nemaju više od 3 nadzemne etaže: prizemlja i dva kata. (3) Antenski stup se ne smije graditi u neposrednoj blizini zdravstvenih, predškolskih i školskih ustanova te ustanova socijalne skrbi. (4) Antenski stup treba smjestiti i graditi tako da se poštuju: 1. prirodne vrijednosti i ograničenja 2. karakteristične i vrijedne vizure, slike mjesta i ambijentalne vrijednosti.

Figure 5. Extract from the Luka Spatial Plan of the City of Luka (PPUG) – comparison of the original text with a proposed revision eliminating all redundant provisions

specifies matters essential to achieving the plan's objectives but that cannot be clearly regulated through graphical means. Infrastructure that does not fall within the planning objectives or strategic requirements is not addressed by spatial plans [39] but is primarily subject to sectoral planning and is therefore constructed in accordance with specific regulations [35]. At the federal, provincial and regional levels, land is reserved for essential infrastructure structures, and these reservations must be incorporated into lower-level plans. The local building legislation applicable in Upper Austria [39] does not require a building permit or a construction notification for infrastructure

structures that are not buildings, except where such structures fall within categories of construction that may have a significant environmental impact. The vertical hierarchy of plans in Linz [40–43] provides an example of plans that contain no textual provisions governing the construction methods of infrastructure structures but include only strategic requirements in the local development concept. This does not imply that such an approach to regulating infrastructure through spatial planning is inherently superior to the Croatian approach. Nevertheless, the examples of spatial plans from Upper Austria are clearly simpler and more transparent, addressing only matters

that fall within their scope while leaving the regulation of infrastructure construction methods to the specific regulations applicable to those matters and to professional practice through design based on the best available techniques. *Stand der Technik* refers to techniques accepted by the relevant professional community that have been successfully tested or demonstrated in practice [4]. Like Austria, Croatia has standardised, generally applicable provisions governing infrastructure systems and structures. However, a clear relationship between these provisions and the spatial planning system has not been established. To illustrate the problem, Figure 5 compares the section on the electronic communications network in one of the plans analysed in this study with a proposed revision of that section. The original section contains 30 provisions expressed across 19 clauses, of which 17 are redundant according to the criteria established in this study. Removing redundant content also makes it possible to express the remaining relevant content more simply and, consequently, more concisely. In this way, the original section is reduced from 668 words to 181 words in eight clauses in the revised section, which contains only 13 effective provisions. In addition to eliminating the need to search through extensive text containing both effective and redundant provisions to identify the former, this approach also avoids other interpretative problems, such as:

- whether a provision regulating a matter already governed by specific legislation elaborates on that legislation, merely reproduces its requirements for informational purposes, or even contradicts it
- whether a provision is purely informative or also has a normative meaning that is not immediately apparent
- whether a reference to the application of certain specific regulations implies that other regulations need not be applied, either because no others exist or because there is a reason for their non-application, and whether that reason has been correctly assessed.

All these questions may arise when applying the original section, but they cease to arise once the redundant provisions are removed. There is no reason for a spatial plan to regulate technical matters that are already governed by specific regulations, are common to the entire country, and are addressed according to standardised requirements that do not vary depending on the spatial unit in which an infrastructure structure is located. In particular, there is no need to restrict the technical solutions adopted for infrastructure projects beyond the limits established by those regulations, except where such restrictions are unavoidable for achieving the objectives of the spatial plan and are justified by exceptional, locally specific circumstances.

6. Conclusions

The analysis of a selected sample of spatial plans has demonstrated that their sections on infrastructure systems contain a substantial proportion, more than half, of provisions expressing redundant norms. Although the prevalence of redundant norms varies among plans and across different infrastructure systems, the degree of variability is relatively low. This indicates that redundant norms are present systematically and consistently, suggesting that their underlying causes are also systemic. The distribution of individual errors across plans and infrastructure systems is less consistent; nevertheless, it points to a recognisable set and structure of errors in which certain types clearly predominate.

An analysis of the structure of the set of redundant norms has shown that non-subject-matter norms, which regulate matters outside the scope of

the plan or its section on infrastructure, and ineffective norms, which do not introduce new, enforceable normative content, account for the majority (86 %) of all redundant norms. In terms of error types, informational content and the regulation of matters already governed by specific legislation account for almost half (44 %) of all redundant norms. When considered together, all norms that can be assigned an informational function in the broader sense, including those that merely declare information in the narrower sense, repeat obligations already established elsewhere or generally known, and include informational content, unnecessary permissions and references, or content already regulated elsewhere, they account for approximately two-thirds (61 %) of all redundant norms.

In the authors' view, these proportions can only be explained by a deeply rooted misunderstanding within the spatial planning system of the purpose of regulating infrastructure projects through spatial plans. Beyond the more specific problem of a lack of understanding of the actual scope of spatial plans, this points to insufficient knowledge of the fundamentals of the legal system as a structured set of legal rules and their expression [44]. Further research should establish which participants in the spatial planning system, plan developers, authorities responsible for plan preparation, public-law bodies, or administrative and professional administrative bodies, bear responsibility, to what extent, and for what reasons.

Further research is also needed to analyse the prevalence of these problems in the regulation of subject matter addressed in other sections of spatial plans. The authors consider that problems affecting the clarity of spatial plans are evidently present but expect the profile of errors to differ from that identified in this study. They hypothesise that each regulatory domain in spatial plans of local significance, including building conditions, conditions for the implementation of infrastructure projects, and protection measures, has a recognisable set and structure of errors. However, these sets are assumed to share common underlying causes that can be identified, thereby enabling the development of approaches to spatial plan preparation that reduce the occurrence of such errors.

The analysis of the cases examined clearly revealed that errors in legislative drafting techniques affect the efficiency of spatial planning, both during plan preparation, through the excessive effort required to produce unnecessary text, and, to a much greater extent, during implementation, through the unnecessary effort required to locate and identify relevant provisions and the interpretative difficulties arising from uncertainty as to whether a particular part of the text is significant. This study did not investigate the actual effects of redundant norms on the volume and clarity of spatial planning documents. Nevertheless, the authors consider that redundant norms accounting for more than half of all norms imply that at least an equally large proportion of the text is redundant. The example analysed, in which the removal of redundant norms reduced the number of original norms to 43 % of the initial total and the volume of text to 27 % of its original length, also indicates that the potential effects may be considerably greater.

However, although the quantitative method used to determine the proportion and structure of redundant norms, together with conclusions derived from the rules governing the spatial planning system, the literature on spatial planning, and the structure of law, enabled this study to confirm the existence of the problem, elucidate its key aspects, and substantiate the hypotheses presented, it did not allow the authors to draw definitive conclusions about the underlying causes. At a minimum, this would require establishing the views of plan developers and other participants in the spatial planning system.

REFERENCES

- [1] Milotić, I., Peranić, D.: Legal Drafting Techniques: Drafting General Acts with Practical Examples, Zagreb: RRiF, 2015.
- [2] Walter, R.: Reine Rechtslehre und Gesetzgebungstechnik, u: Kindermann, H. (ur.): Studien zu einer Theorie der Gesetzgebung, Berlin, Heidelberg: Springer-Verlag, 1982, pp. 144–151.
- [3] Banić, S.: The Legal Regime of General Acts Following the Adoption of the Administrative Disputes Act (2010), Proceedings of the Faculty of Law in Split, 50 (2013) 3, pp. 573–588.
- [4] Bundesministerium der Justiz, Bundesrepublik Deutschland: Bekanntmachung des Handbuchs der Rechtsförmlichkeit, Bundesanzeiger, 60 (2008) 160a.
- [5] Šarčević, S.: Language as an Expression of Law, in: Barbić, J. (ur.): Language in Law: Round Table Held on 8 May 2013 at the Palace of the Academy in Zagreb, Zagreb: Croatian Academy of Sciences and Arts, 2013, pp. 21–36.
- [6] Thieme, S., Raff, G.: Verständlichkeit von Gesetzestexten und ihre Optimierung in der Praxis, u: Ekkehard, F., Vogel, F. (ur.): Handbuch Sprache im Recht, Berlin: De Gruyter, 2017, pp. 391–421.
- [7] Lukić, R., Košutić, B.: Introduction to Law (Uvod u pravo), Belgrade: Faculty of Law, University of Belgrade, 2008.
- [8] Höfler, S.: Das Legalitätsprinzip in der Gesetzessprache, u: Uhlmann, F. (ur.): Gute Gesetzessprache als Herausforderung für die Rechtsetzung, Zürich: Dike, 2017, pp. 143–171.
- [9] Wronkowska, S.: Zur Formulierung von Rechtsnormen in Rechtsvorschriften, u: Kindermann, H. (ur.): Studien zu einer Theorie der Gesetzgebung, 1982, pp. 208–218.
- [10] Hartmann, A., Paradi, Z.: Über kurz oder lang: zur angemessenen Kürze in der Formulierung von Rechtsvorschriften, u: Uhlmann, F., Höfler, S. (ur.): Gute Gesetzessprache als Herausforderung für die Rechtsetzung, Zürich: Dike, 2018, pp. 215–237.
- [11] Perić, B.: The Structure of Law (Struktura prava), 12th ed., Zagreb: Informator, 1994.
- [12] Kelsen, H.: General Theory of Norms (Opća teorija normi), Zagreb: Naklada Breza, 2015.
- [13] Visković, N.: The Language of Law (Jezik prava), Zagreb: Naprijed, 1989.
- [14] Holzinger, G.: Die Technik der Rechtssetzung, u: Schäffer, H. (ur.): Theorie der Rechtssetzung, Beč: Manzsche Verlags- und Universitätsbuchhandlung, 1988, pp. 303–344.
- [15] Larenz, K.: Methodenlehre der Rechtswissenschaft, 2nd abridged study edition, Berlin: Springer, 1992.
- [16] Guastini, R.: The Syntax of Law, Zagreb: Naklada Breza, 2018.
- [17] Vuković, M., Vuković, Đ.: The Science of Legal Drafting: Legislative Drafting Techniques, 4th ed., Zagreb: Informator, 1997.
- [18] Schäffer, H.: Rationalisierung der Rechtssetzung, u: Schäffer, H. (ur.): Theorie der Rechtssetzung, Beč: Manzsche Verlags- und Universitätsbuchhandlung, 1988, pp. 199–240.
- [19] Construction Act, Croatian Parliament, Narodne novine, No. 155/2025.
- [20] Physical Planning Act, Croatian Parliament, Narodne novine, No. 155/2025.
- [21] Ordinance on Spatial Plans, Ministry of Physical Planning, Construction and State Assets, Narodne novine, No. 152/2023.
- [22] City of Osijek: Decision on the Adoption of the General Urban Plan of the City of Osijek – Implementation Provisions (Consolidated Text) and Graphic Section, Službeni glasnik Grada Osijeka, No. 7/25, 2016.
- [23] Municipality of Vojnić: Consolidated Text of the Implementation Provisions of the Third Amendments and Supplements to the Physical Plan of the Municipality of Vojnić, Službeni glasnik Općine Vojnić, No. 5/23, 2023.
- [24] City of Nin: Decision on the Adoption of the Urban Development Plan for the Northwestern Part of the Ninski Stanovi Business Zone, Službeni glasnik Grada Nina, Nos. 6/17, 3/21 and 5/22, 2017.
- [25] Municipality of Tribunj: Decision on the Adoption of the Urban Development Plan for the Settlement of Tribunj, Službeni vjesnik Šibensko-kninske županije, Nos. 3/11 and 6/13; Službeni glasnik Općine Tribunj, Nos. 13/18 and 12/22, 2011.
- [26] Municipality of Čepin: Conclusion on the Adoption of the Decision on the Physical Plan of the Municipality of Čepin – Consolidated Text of the Implementation Provisions, Službeni glasnik Općine Čepin, No. 2/25, 2025.
- [27] City of Slunj: Urban Development Plan of the City of Slunj – Plan Implementation Provisions (Consolidated Text), Službeni glasnik Grada Slunja, No. 5/21, 2021.
- [28] Municipality of Davor: Decision on the Adoption of the Physical Plan of the Municipality of Davor, Službeni vjesnik Brodsko-posavske županije, Nos. 14/03, 13/08 and 7/13, 2003.
- [29] City of Zadar: Decision on the Adoption of the Detailed Development Plan for the High-Density Residential Development Zone “CRVENE KUĆE”, Glasnik Grada Zadra, Nos. 6/08, 4/13, 15/17, 16/20 and 5/24, 2008.
- [30] Municipality of Zagorska Sela: Decision on the Adoption of the Physical Plan of the Municipality of Zagorska Sela, Službeni glasnik Krapinsko-zagorske županije, Nos. 21/06, 10/09, 23/12, 3/13, 32/16, 21/17 and 30/22, 2006.
- [31] City of Duga Resa: Decision on the Adoption of the Urban Development Plan of the City of Duga, Službeni glasnik Grada Duge Rese, Nos. 05/08, 09/12, 08/20, 01/21 and 09/23, 2008.
- [32] Municipality of Luka: Decision on the Adoption of the Physical Plan of the Municipality of Luka, Glasnik Zagrebačke županije, Nos. 15/04, 9/09, 1/10, 34/17, 20/21 and 24/21, 2004.
- [33] City of Kastav: Physical Plan of the City of Kastav (Consolidated Text of the Implementation Provisions and Consolidated Graphic Section), Službene novine Grada Kastva, No. 9/21, 2021.
- [34] Municipality of Udbina: Decision on the Adoption of the Physical Plan of the Municipality of Udbina, Županijski glasnik Ličko-senjske županije, Nos. 27/06, 18/10, 25/14, 32/17, 28/21 and 09/24, 2006.
- [35] Gruber, M., Kanonier, A., Pohn-Weidinger, S., Schindelegger, A.: Spatial Planning in Austria with References to Spatial Development and Regional Policy, Vienna: ÖROK, 2018.
- [36] Landesgesetz vom 6. Oktober 1993 über die Raumordnung im Land Oberösterreich, Landesgesetzblatt für Oberösterreich, broj 114/1993, 93/1995, 78/1996, 93/1996, 83/1997, 131/1997, 32/1999, 102/1999, 60/2000, 90/2001, 115/2005, 1/2007, 102/2009, 73/2011, 90/2013, 69/2015, 125/2020, 111/2022, 14/2024, 81/2024, 14/2025 i 48/2025.
- [37] Verordnung der Oö. Landesregierung, mit der die Form und Gliederung des Flächenwidmungsplans, die Verwendung bestimmter Planzeichen und Materialien sowie der Maßstab der zeichnerischen Darstellung geregelt werden (Planzeichenverordnung für Flächenwidmungspläne), Landesgesetzblatt für Oberösterreich, broj 46/2008.
- [38] Verordnung der o.ö. Landesregierung vom 11. Dezember 1995, mit der die Form und Gliederung des Bebauungsplanes, die Verwendung bestimmter Planzeichen und Materialien sowie der Maßstab der zeichnerischen Darstellung geregelt werden (Planzeichenverordnung für Bebauungspläne), Landesgesetzblatt für Oberösterreich, broj 3/1996 i 69/2013.
- [39] Landesgesetz vom 5. Mai 1994, mit dem eine Bauordnung für Oberösterreich erlassen wird, Landesgesetzblatt für Oberösterreich, broj 66/1994, 5/1995, 93/1995, 93/1996, 70/1998, 102/1999, 90/2001, 114/2002, 80/2005, 96/2006, 36/2008, 34/2013, 90/2013, 95/2017, 44/2019, 125/2020, 55/2021, 62/2021, 111/2022, 14/2024, 60/2024, 14/2025 i 21/2025.
- [40] Örtliches Entwicklungskonzept Linz Nr. 2, Baulandkonzept, Gemeinderatsbeschluss, 2013. Dokument [pristupljeno: 31. 8. 2025.].
- [41] Flächenwidmungsplan Linz Nr. 4, Gemeinderatsbeschluss, 2013. WebGIS Linz [pristupljeno: 31. 8. 2025.].
- [42] Bebauungsplan M05150100 Tegethofstrasse-Stockhofstrasse, Amtsblatt der Stadt Linz, broj 21/1995, 1995.
- [43] Bebauungsplan N26160200 Zellerstraße-Ottensheimer Straße, Amtsblatt der Stadt Linz, broj 24/2014, 2014.
- [44] Perić, B.: The State and the Legal System (Država i pravni sustav), 6th ed., Zagreb: Informator, 1994.