

NNLT and ‘spatial optimisation’ in Wallonia: addressing the challenge of compensation for downzoning

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Introduction

Two main characteristics are prerequisites for understanding how spatial planning operates in Belgium in general and in Wallonia in particular (Halleux and Lacoere 2023). The first characteristic relates to the Belgian cultural and political context in which the planning tradition is notably weak, especially compared to its neighbouring countries the Netherlands, Germany, and France. In Belgium, the relationship between individual property rights and collectively desired land use objectives has historically favoured landowners, leading to the country being described as a “landowners’ paradise” (Halleux and Leinfelder 2025). The result of this situation is a particularly diffuse urban sprawl (Halleux *et al.* 2012).

The second characteristic of the Belgian context is its status as a federal State, where spatial planning is currently the exclusive responsibility of four federated entities: the Brussels-Capital Region, the Flemish Region, the Walloon Region, and the German-speaking Community.¹ This division means that four distinct planning systems coexist within Belgium, despite their origins in a common framework established by the national government in the 1960s. Since the 1980s, the planning systems and legislation of the regions began to diverge, reflecting the transition from a unitary to a federal State.

The research synthesized in this contribution has been undertaken in Wallonia. More precisely, these regional studies have been conducted to assist the regional government in its commitment to limit urban sprawl (Bottiau *et al.* 2020; Bernier *et al.* 2021; Defer, Wilmotte and Hendrickx 2022). In 2024, this commitment resulted in the

formalisation of the objective of No Net Land Take (NNLT) by 2050, as part of the adoption of the Territorial Development Scheme (SDT or *Schéma de développement du territoire*), i.e. the strategic master plan for the Region. The key strategy highlighted by the SDT has been officially named spatial optimisation by the Walloon government (*optimisation spatiale* in French). As we shall develop in this article, NNLT is one of the main components of the concept of spatial optimisation. At the same time, the SDT also emphasises the ambition to concentrate new residential developments in centralities.

The central objective of our contribution is to discuss the major obstacle to the effective implementation of the NNLT objective in Wallonia. This is the issue of compensation for downzoning. It should be noted that this issue is not the only obstacle to the regional application of NNLT. There are other factors likely to hinder the effective deployment of this ambition. On the one hand, there is the desire of local authorities to continue to artificialise to pursue their growth. On the other hand, there are also major difficulties experienced by the Walloon planning system to curb sectoral policies that contribute to urban sprawl (taxation, mobility, economic development, etc.) (Halleux 2012; Lacoere *et al.* 2024).

This article is structured into four sections. The first section introduces the issue of oversupply in regional land use plans, while the second section presents the ‘spatial optimization’ strategy. The remainder of the article explores two approaches aimed at achieving the NNLT goal while avoiding financial compensation, without revising the downzoning compensation framework. The third section analyzes the implications

of implementing the centrality approach, which overlays a new form of zoning onto the existing regional land use plans and functions similarly to Urban Growth Boundaries. The fourth section examines an alternative strategy for reducing the financial impact of downzoning: the removal of legally buildable areas that do not meet the statutory requirements for compensation.

The issue of oversupply in the regional land use plans

In Belgium, formal planning legislation was not enacted by the national Government until 1962. Two years later, in 1964, the national level initiated the preparation of land use plans, largely in response to a lack of enthusiasm for land use planning at the municipal level. These plans were referred to as *plans de secteur* in French-speaking Wallonia and *gewestplannen* in Dutch-speaking Flanders. For the sake of clarity, we will refer to them as “regional plans” throughout this text, as they are now under the authority of the regional Governments. The regional land use plans were approved during the 1970s and 1980s and have since become the most influential planning instruments. In Wallonia, any planning permit must comply with these plans unless a lengthy modification process is undertaken. One notable characteristic of these regional land use plans is the significant oversizing of residential zones between the 1960s and 1980s. This was likely due to two factors. Firstly, the plans were drawn up during a time of anticipated economic and demographic growth. Secondly, the 1962 Planning Act introduced a compensation mechanism for downzoning. Fearing large compensation payouts, planners and politicians were generous in designating large greenfield areas for residential use to avoid legal challenges by landowners who might claim that their land had been considered for development prior to the plan’s implementation (Haumont 1990; Lacoere and Leinfelder 2020). The oversizing of residential zones is one of the primary causes of the extensive land consumption and urban sprawl that characterises much of Belgium today.

The oversizing of residential zones also represents a major obstacle to putting the NNLT strategy into practice. For Wallonia,

the amount of residential building land zoned by the regional land use plans amounts to 175,000 hectares, including 50,000 hectares of non-artificialised residential land (2024). This oversupply in greenfield is due to landowners' indefinite right to compensation. Several decades after the land use plans came into force, the right to compensation remains, making Governments reluctant to implement downzoning. In the remainder of the article, we will examine two approaches designed to bypass financial compensation without revising the existing downzoning compensation framework. In the third section, we analyse the 'centrality' approach, which involves overlaying a new form of zoning onto the existing regional land use plans. In the final section, we explore the possibility of eliminating legally buildable areas that do not meet the statutory requirements for compensation. Before developing these two approaches, we can now continue by presenting the current political objective of 'spatial optimisation'.

The current political objective of 'spatial optimisation'

The Walloon government put forward the NNLT objective in 2019 as part of its regional master plan (SDT). This initiative was partly in response to both the European agenda and the Flemish Government's goals

(see the article on the Flemish case in the rubric). As in Flanders, the NNLT objective was coined in the media as "concrete stop" (*Betonstop* in Dutch-speaking Flanders and *Stop béton* in French-speaking Wallonia). In Wallonia, land use data based on cadastral information is used to monitor land take. According to official data, settlement areas account for approximately 16% of the regional territory (Wallonie and Iweps 2024). Between 2009 and 2019, the net annual land take was estimated at 12 km² per year (Fig. 1). The 2019 SDT aimed to cut land consumption by half, from 12 to 6 km²/year by 2030, and moving towards net zero land take by 2050. However, the Walloon Government did not set a firm date for when the SDT and the related measures would take effect, and the document was finally withdrawn in 2022. In April 2024, the Walloon Government finally approved a revised version of its SDT, with the measures officially entering into force in August 2024. The NNLT objective remains similar to the one in the 2019 SDT, although the interim milestone for 2030 is no longer included (Fig. 1). In 2024, the neutral term *optimisation spatiale* was formally adopted for this new land policy. In addition to the NNLT target, the spatial optimisation strategy also aims to reduce the spatial dispersion of new residential developments. By 2050, at least 75% of new

dwelling are expected to be located within designated centralities. Currently, the share of the production of new dwellings in centralities is estimated at 50%. The 75% objective is intended to prevent further expansion of remote residential areas. However, discussions are still ongoing regarding the precise delimitation of centralities, the specific regulations that will apply to planning applications both inside and outside these areas, and the municipal-level implementation timelines leading up to 2050.

The impact of the delimitation of centralities on the supply of land

In line with the SDT strategy, centralities are parts of villages and urban areas that combine three key characteristics: (i) a concentration of housing, (ii) good accessibility by public transport, and (iii) proximity to services and facilities. Centralities play a central role in reducing residential urban sprawl, with the target that, by 2050, the proportion of new dwellings developed within their boundaries will increase from 50% to 75%. In this regard, the centrality instrument introduces a new zoning logic that complements the existing framework of regional land use plans.

The adoption of the SDT in 2024 marked the first step in implementing the centralities instrument, with an initial proposal for their boundaries. In this first proposal, centralities account for 6.4% (103,000 hectares) of the regional territory.² The proposal was developed at the regional level using quantitative GIS techniques. In the next phase, each of the 252 concerned municipalities will prepare a municipal master plan (*Schéma de développement communal* or SDC), which will define the final boundaries of the centralities through a complementary local and qualitative approach.

The SDT also introduced *temporal trajectories* for monitoring key objectives at both the regional and sub-regional levels. This includes the monitoring of land take and the spatial distribution of new dwellings (i.e. whether they are located inside or outside the centralities). In parallel, each SDC will have to define corresponding temporal trajectories at the municipal level. These trajectories must include intermediate thresholds for six-year periods. Their monitoring will be subject to

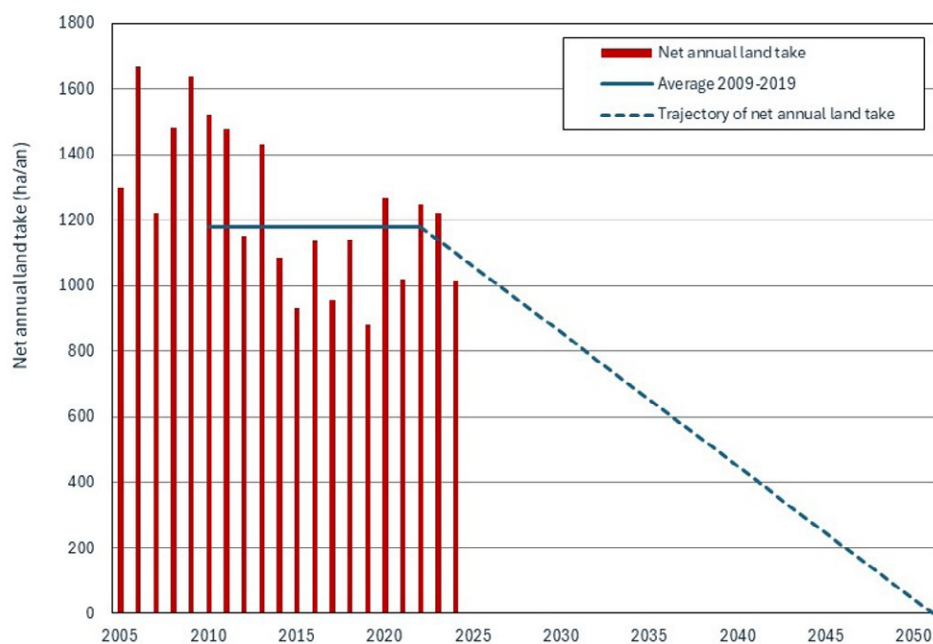


Fig. 1. Net annual land take in french-speaking Wallonia from 2005 to 2023 (red bars), the projected trajectory to reach land take by 2050 (dashed line) is calculated linearly from the average for 2009 to 2019 (solid line) (authors' elaboration).

regular assessment to determine whether local policies need to be adjusted.

At this stage, the policy still lacks clarity regarding how the regional strategy should be integrated into the SDCs. With respect to the trajectories, the only current regional requirement concerns the 2050 target. As of now, there is no framework for how these trajectories should be progressively implemented at the local level. A second shortcoming is that, although it is recommended that SDCs be adopted within six years of the SDT's entry into force (i.e. at the latest in 2030), the regional government has not imposed binding deadlines for adopting municipal master plans. In Wallonia, the traditional approach to measuring land supply is based on the residential zones defined by the regional land use plans. Throughout the remainder of the text, the expression "land supply" will refer to land that is both situated within designated residential zones and has not yet been affected by urbanisation. We will also use the expression "rate of land supply" to denote the ratio between the land supply and the total area of residential zones defined by the regional land use plans.

For the whole of Wallonia, the rate of land supply is estimated at 29% (Wallonie and Iweps 2024). Figure 2 highlights significant spatial disparities in the land supply ratio across the region. The rate of land supply tends to be higher in municipalities located farther from urban centers than in those situated nearby. Combined with the fact that plot sizes are often larger in these rural municipalities, this configuration contributes to the spread of land take. Notably, land take for housing does not occur exclusively within the residential zones designated by the regional land use plans. It is estimated that 25% of residential land take occurs outside these designated zones (Lorquet et al. 2020). Indeed, many building zones are structured in 'ribbons' along roads, causing private gardens to frequently extend into land zoned for agriculture.

Residential greenfield land is primarily located outside the centralities. On average, only 21% of it lies within centralities (10,600 hectares out of 50,000 hectares). This configuration appears to conflict with the goal of concentrating 75% of new dwellings within the centralities. Achieving this 75% target will indeed

be challenging, given that most of the available land is situated outside the centralities.

On average, the rate of land supply within the centralities represents 17% (10,600 hectares out of 61,000 hectares). In some municipalities, this rate is significantly lower (Fig. 3). Without active land policy, this situation is likely to exacerbate the housing affordability crisis, particularly in municipalities facing high housing prices and rapid population growth. With limited land supply, densification becomes the primary means of increasing the housing stock within centralities. This is supported by the SDT, which includes net density requirements for projects exceeding 0.5 hectares. Depending on whether the centrality is located in a village or an urban area, development projects must achieve a net housing density of at least 20 to 40 dwellings per hectare. However, such densities can present challenges in terms of both economic feasibility and public acceptance.

Net density regulations can also create market challenges in the 'outside' areas. According to the SDT density guidelines, housing projects over 0.5 hectares outside centralities must have a net density of fewer than 10 dwellings per hectare. To market homes at such low densities, developers will likely need to charge relatively high prices, which will also contribute to affordability

problems. The 10 dwellings per hectare density regulation was established to limit new developments outside the centralities without resorting to downzoning and eliminating building land. However, as small-scale developments remain permissible, it is likely that urban sprawl will continue to prosper.

Reduction of the land supply without compensation

In Wallonia, planning legislation is governed by the Territorial Development Code (*Code du Développement Territorial* or CoDT in French). This legislation outlines the conditions under which a landowner may request compensation due to the downzoning of their property. Generally, compensation can only be claimed if the property (i) is adjacent to a "sufficiently equipped" road and (ii) is considered "suitable" for building. The suitability of a property refers to the risks and constraints that the competent authority may invoke to refuse planning permission. Based on these criteria, residential land that could be protected from development without requiring financial compensation was mapped to quantify its extent (Defer, Wilmotte and Hendrickx 2022). A review of case law has identified two essential criteria for a road to be considered "sufficiently equipped": first, it must have both water and electricity connections;

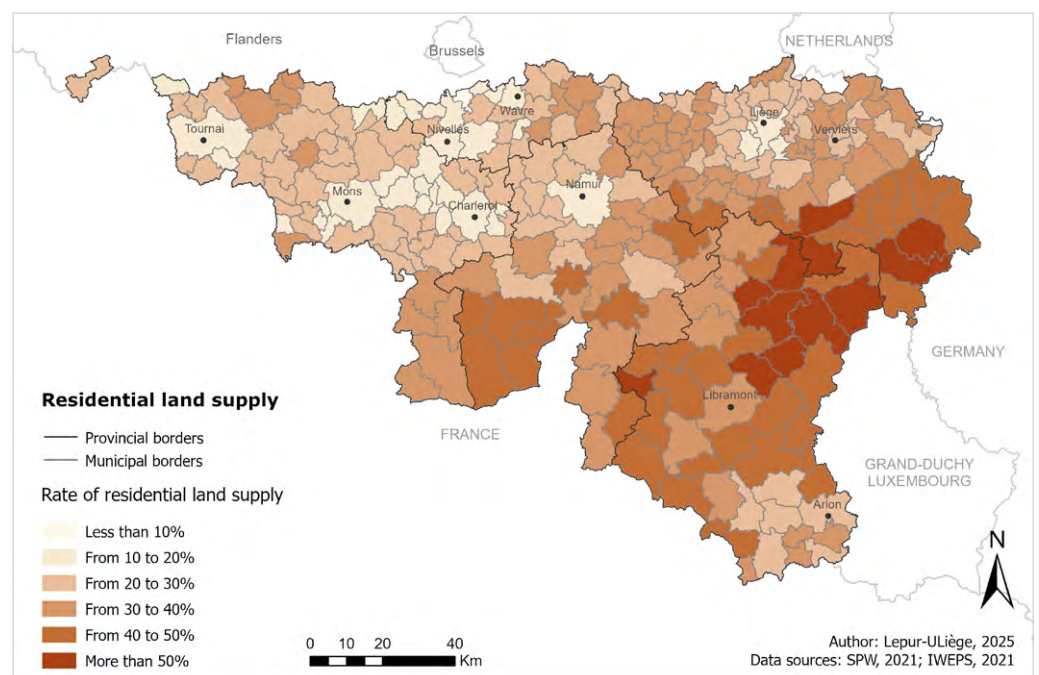


Fig. 2. Rate of residential land supply across municipalities in Wallonia, expressed as the proportion of greenfield residential land relative to the total residentially zoned land (authors' elaboration from SPW 2021, IWEP 2021).

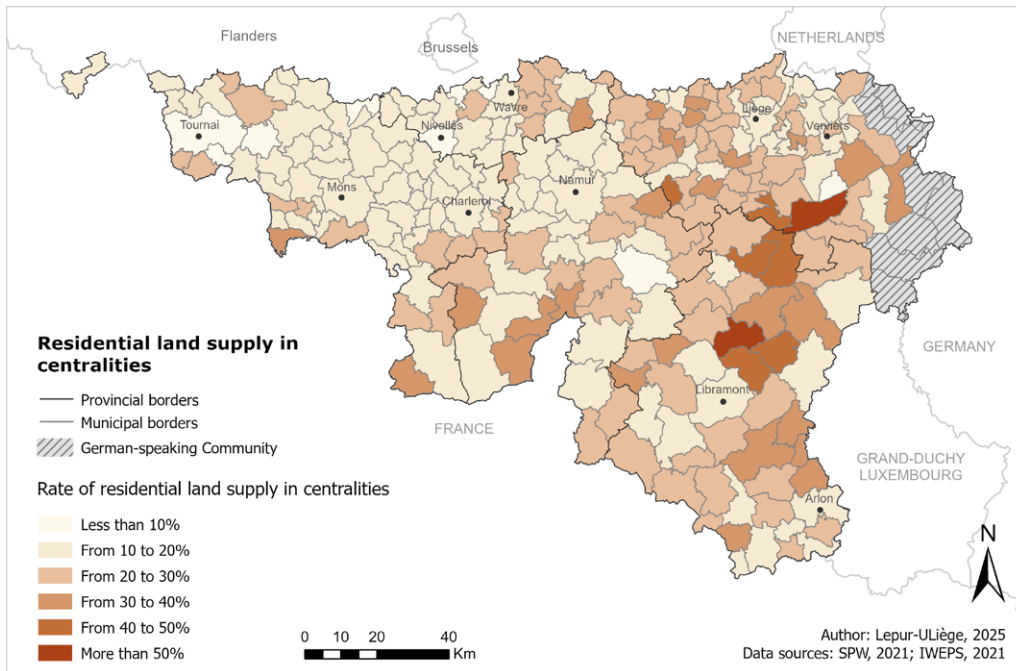


Fig. 3. Rate of residential land supply in centralities across municipalities in french-speaking Wallonia, expressed as the proportion of greenfield residential land relative to the total residentially zoned land (autors' elaboration from SPW 2021, IWEPS 2021).

second, it must have a solid surface. Since these conditions are cumulative, roads that lack water infrastructure, lack electricity infrastructure or are unsuitable for vehicles are not considered sufficiently equipped. Due to a lack of available data, the presence of solid road surfaces was not taken into account in our analysis. Regarding water and electricity supply, the extent to which roads are serviced was determined using data on the location of underground networks provided by the main distribution companies operating in Wallonia. Land was considered to be equipped if it was located less than ten meters from a sufficiently equipped road. The criterion concerning the absence of water or electricity supply affects approximately 21,000 hectares, representing around 37% of the residential land supply. As mentioned above, the suitability of a property for building refers to the risks and constraints that authorities may invoke to refuse planning permission. These are mainly related to exposure to natural hazards such as flooding, rockfall, landslides, or karst phenomena, as well as proximity to areas designated for nature conservation (e.g., nature reserves, Natura 2000 sites, or biologically important wetlands). Regarding flood risk, the CoDT does not specify the level of risk that would justify the absence of compensation in the event of a

change of land use. Adopting a restrictive approach, only areas classified as being at high flood risk were considered. These correspond to areas where the risk of flooding due to river overflow occurs at least once every ten years. The total area of residential land supply affected by high river flood risk is estimated at 926 hectares. For karst phenomena as well, there is no clearly defined threshold for refusing a planning application. Consequently, the analysis was limited to areas subject to severe karstic constraints – zones where the risk of ground collapse is considered significant enough to justify a building ban. The total surface area of residential land supply affected by a high risk of karstic collapse is estimated at 53 hectares. The CoDT does not define 'proximity' to protected areas as a criterion that would justify the absence of financial compensation. Adopting a restrictive approach, our analysis was limited to land within designated protected areas. The total surface area of residential land supply falling within a "nature conservation" site is estimated at approximately 1,400 hectares. Overall, based on the adopted restrictive approach, we estimate that approximately 42% of the greenfield residential land supply could be downzoned without requiring financial compensation (Fig. 4). Despite this

substantial potential, it is noteworthy that the Walloon government chose not to support a policy aimed at downzoning land without compensation. This suggests that the barriers to zoning reform are not only legal and financial, but above all political. Indeed, from an electoral perspective, implementing an effective downzoning policy is perceived as politically risky.

Conclusion

The requirement to provide financial compensation for downzoning explains the ongoing land consumption and urban sprawl that characterizes Belgium in general and Wallonia in particular. At the same time, it remains one of the main obstacles to implementing the NNLT objective due to the overabundance of building zones designated in the old regional land use plans. This article has explored two potential strategies to overcome this obstacle.

The first strategy – superimposing a new zoning framework – is currently being pursued in Wallonia through the delineation of centralities. Based on the strategic plan SDT, the objective is to increase the share of new dwellings built within centralities from approximately 50% today to 75% by 2050. A significant milestone was reached in 2024 when, as part of the SDT, the Walloon authorities published a map of these perimeters using a homogeneous delimitation approach developed at the regional level. A second major step is planned for 2030, when the 252 municipal authorities should have adopted the definitive boundaries of their centralities. Beyond the question of their final delimitation, the implementation of the centrality-based approach remains unclear in two key respects. First, the regulations governing permit applications for sites located inside and outside the centralities have yet to be defined. Second, the temporal trajectory for achieving the 75% objectives at the municipal level remains uncertain. To address the issue of financial compensation for downzoning in a more straightforward and likely more effective manner, a second strategy involves rezoning land that does not meet the legal conditions for compensation. Our estimates indicate that over 40% of currently designated building areas could be downzoned in

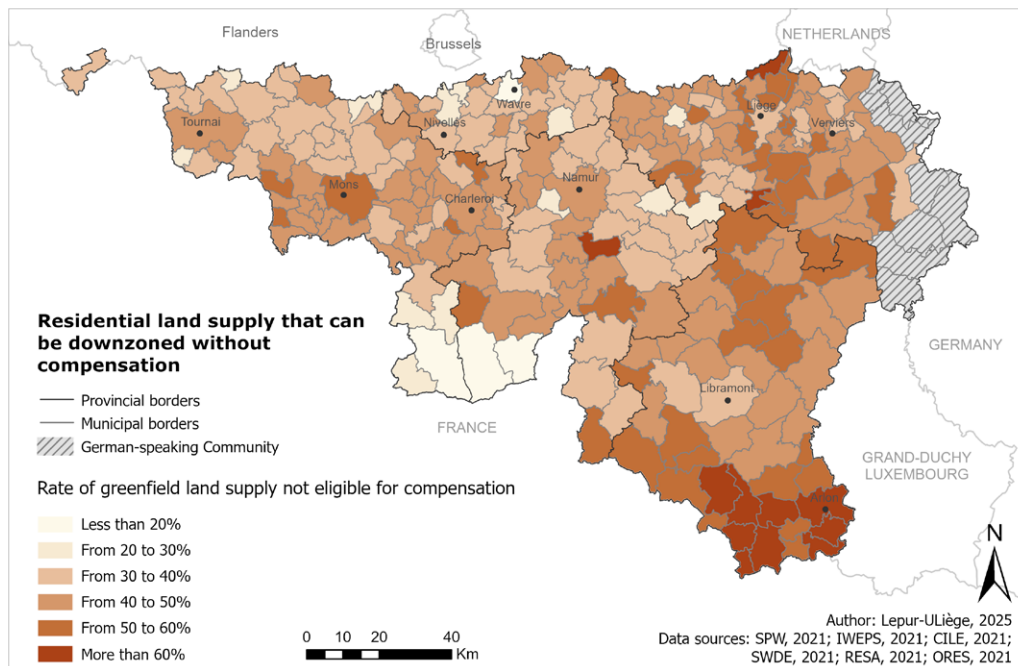


Fig. 4. Rate of residential land supply that can be downzoned without compensation across municipalities in french-speaking Wallonia, expressed as the proportion of greenfield residential land not eligible for compensation relative to the total of greenfield residential land (authors' elaboration from SPW 2021, IWEPS 2021, CILE 2021, SWDE 2021, RESA 2021, ORES 2021).

this way, without imposing any burden on the public budget. However, this strategy seems to attract little interest from the Walloon authorities at present, likely due to its perceived electoral risks. ■

Footnotes

1 From a territorial standpoint, the German-speaking Community is part of the Walloon Region. However, since 2020, this entity has held its own competence in spatial planning. The German-speaking Community comprises nine German-speaking municipalities, while the remainder of Wallonia consists of 252 French-speaking municipalities. In the rest of this text, references to Wallonia will, in fact, refer specifically to these 252 French-speaking municipalities.

2 More precisely the territory of its 252 French-speaking municipalities.

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