

## Extended Abstract

### **Execution units as plan programming instruments: analysis of the case of the municipality of Lisbon**

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#### **Abstract**

The urban planning activity, due to the subjectivity of its decisions and solutions, surrounded by individual interests, in particular the ones in relation to land classification and public utility restrictions, requires a certain amount of sensibility. In fact, being a highly influential activity, the discretion of public power may, easily, fall short of its objective, by mere regulatory acts, which can have heavy consequences on the right to private property.

Municipal territorial plans comprise a static component that translates into a set of rules and strategic options, alongside a dynamic component characterized by a set of actions which have as their primary objective the execution of said content.

The first municipal territorial plans in Portugal suffered from “mistakes” and omissions which have significantly impacted all Portuguese territory. One of said mistakes, consists precisely in the lack of instruments which can appropriately programme the execution of municipal territorial plans, as well as in the provision of the financial tools needed for its execution, disregarding the timing and terms of the execution phase.

With recent alterations to Portuguese urban legal framework came a change of focus towards the solution of the aforementioned problems. Through the creation of the instrument “execution unit”, an adaption of the land readjustment process, and the associated execution systems, Portuguese entities have tried to close the gap between the planning phase and the urban management phase.

The purpose of this study is to assess the extent to which the urban interventions carried out within the scope of execution units, through joint operations, using equalization mechanisms, have contributed to guarantee the adequate urban planning foreseen in the municipal territorial plans, ensuring their execution in the territory, while securing a fairer distribution of benefits and costs between all actors.

As such, within the scope of this dissertation, it was decided to reflect on the case of the municipality of Lisbon, which currently has 16 execution units affected, of which 11 have already been approved and 5 remain in the process of being approved.

The analysis of the case study, joined by a comparative analysis between the Portuguese context and the international reality (Germany and Japan), and by a series of interviews carried out with professionals from fields related to the aforementioned themes, allowed us to make considerations

ranging from lessons to be learned from the international context and to be applied in Portugal, to a definition of the main criteria to be considered in the delimitation of execution units.

**Keywords:** execution units, municipal territorial plans, land readjustment, Lisbon municipality.

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## 1. Introduction

The exponential urban growth that took place across Europe, including Portugal, originated mosaics of urban fabric that are particular for being fragmented, diffuse and disconnected from the rest of the urban tissue (Condessa, Cambra, Sá & Ferreira, 2012). This rapid expansion, marked by an inadequacy in its programming, significantly increased the costs of urban development due, for example, to the necessity of providing urban services and infrastructures (Rocha, 2019)

The legal conception of the notion of programming (and its execution) was introduced in the Portuguese legal framework as a way to combat the aforementioned effects, however the same legal framework is not explicit in specifying what should be considered as such (Oliveira & Lopes, 2013) and “doubts still remain about which programming instruments exist among us and which ones are best suited to the regulation of each type” (Oliveira & Lopes, 2013, p. 26).

In fact, according to Jorge Carvalho and Fernanda Paula Oliveira (2021), professionals in urban planning and land use are generally aware of the insufficiency and ineffectiveness of the Portuguese Land Management System, with the most relevant justification for this premise residing in the phase of implementing the plans.

Even though, the act of planning does not always have as its final product the urban development of the land (Condessa et al., 2012), a plan only fulfills its objective when it is implemented in the territory. Although, sometimes, it may not always reach the fullness of its content, it is fundamental that the actions identified as crucial by the plan reach this end (Carvalho & Oliveira, 2021).

Therefore, to ensure the execution of municipal plans, it is imperative that the local administration is capable of promoting the coordination and programming of these plans, conditioning urban interventions to the zoning drawn on them and demanding that the urban operations to be carried out are in accordance with the systems and instruments provided in the legislation in force, materializing, therefore, the urban models foreseen in the territorial plans (Gonçalves, 2012).

It is in this context that the programming instruments are fundamental, establishing the bridge between the programming phase and the implementation one, facilitating the transition between the plan and urban management.

Within these programming instruments, there is the execution unit (EU), where through joint operations with the application of equalization mechanisms, is possible to achieve a fairer distribution of benefits and costs among those involved (land readjustment in Anglo-Saxon countries), which has been gaining popularity internationally as a way to ensure fair and efficient urban development (Condessa et al., 2012).

## **2. Execution unit as a concept and a procedure**

Despite the fact that the execution unit does not have a direct translation into the international context, being a specific instrument of the Portuguese universe, it had its foundations in similar urbanistic tools of foreign origin, namely: in the configuration of the land readjustment, also known as land pooling, land consolidation or instigated property exchange.

The definition of land readjustment varies from country to country, being subject to the specificity of their institutional, legal, social and economic contexts. Nevertheless, generally speaking, the land readjustment procedures result in the physical transformation of the land structure through the alteration of the limits of the original parcels, redistributing the final result proportionally among the total number of owners, via a new plot calculated according to the area of the previous one or by measuring the market value of the current plot, while a part is assigned for uses in the public domain. If it is not possible to compensate in via plots of land, compensation can be made in monetary terms (Condessa et al., 2015).

The main advantages of applying the land readjustment technique, compared to other existing techniques, can be summarized on two sides. From the perspective of public institutions, it allows achieving the intended urban development without the need to resort to expropriation procedures, which are, by nature, time-consuming, exhaustive and costly (Connellan, 2002), offering an alternative where the end result involves serviced land at no cost to the same entities (Home, 2007; Turk, 2008). At the same time, it ensures the acquisition of land for purposes of the public sphere financed through capital gains arising from land readjustment (Connellan, 2002; Home, 2007; Turk, 2008).

On the other hand, from the perspective of the landowners, the land readjustment process grants them the possibility of scale economies, allowing them to participate in larger urban development projects, reducing real estate speculation by discouraging the retention of land outside the market, while, at the same time, fulfilling social obligations (Viitanen, 2002; Home, 2007).

Nonetheless, the benefits of this technique are not limited to those mentioned above. Establishing an association facilitates negotiations with local authorities, as well as provides a more solid fund capable of solving future problems. In addition, it also offers landowners a more active role in mobilizing their resources and interests, since landowners tend to receive as a result from the land readjustment procedure serviced plots of land in the same location conditions as their previous ones (Larsson, 1997; Viitanen, 2002).

However, limitations are identified as aspects related to the greater complexity of the process that requires high expertise, increasing its length. In fact, land readjustment can be considered a passive approach, not conducive to solving urgent urban problems and often applied as a top-down mechanism that can make it difficult for the local community to participate in the planning process. Finally, it is also worth highlighting the situation of inequality in which small landowners find themselves (Viitanen, 2002; Home, 2007; Gielen & Mualam, 2019).

Therefore, it is understandable to state that land readjustment has its greatest value in assembling plots of land with a view to better maximize their rentability, facilitating the fair sharing of profits and associated costs and, minimizing the financial pressure that exists along with public entities to provide the necessary infrastructure and equipment (Condessa et al., 2012).

### 3. The Portuguese and the International framework

Has said before, for this work it was made a comparative analysis between the Portuguese context and the international reality (Germany and Japan). The next table (Table 1) synthesizes some of the key characteristics found in each of the countries encompassed in this study:

Table 1 – Key characteristics of LR procedures in the 3 studied countries (Source: Adapted from Turk, 2008)

Key Characteristics/ Countries	Germany	Japan	Portugal
Legal Structure	Baugesetzbuch (2011)	LR Act (2019)	RJIGT (2015)
Sector undertaking LR projects	Public Administration (always) with or without landowner's support	Public Administration  Private Entities	Public Administration ( <i>imposição administrativa</i> ) Public Administration with private entities ( <i>cooperação</i> ) Private entities ( <i>iniciativa dos interessados</i> )
Participation landowners to LR projects	Compulsory	Compulsory for LR with public initiative	Voluntary
Cost Recovery	Land contribution for public space Cost-equivalent land for cost of the projects	Land contribution for public space Cost-equivalent land for cost of the projects	Land contribution for public space Cost-equivalent land for cost of the projects in accordance with <i>Contrato de Urbanização</i>
Amount of land contribution	No more than 30 percent of market value of the land (in value basis) No more than 30 percent of area of the land (in area basis)	Land deduction rate is not determined (usually 20 percent deduction for communal land requirements and 10 percent set aside of cost- equivalent land)	In accordance with the dispositions of <i>PDM</i> (Municipal Master Plan)
The way of distribution stage	Value basis Area basis	Value basis Area basis	Not determined but it's advised the use of 3 mechanisms: <i>índice de</i>

Key Characteristics/ Countries	Germany	Japan	Portugal
			<i>edificabilidade média do plano, área de cedência média e a repartição de custos</i>
The determination of valuation	Market value	Not determined but is usually used a valuation by street value	Without any legal dispositions and awaiting regulation
Inclusion of infrastructure costs	No	Yes	Yes
Content	<i>Umlegungsplan</i>	<i>Kanchi</i>	EU delimitation plant with respective cadastral map

The main lessons that we can draw from the comparison of the Portuguese context with the German and Japanese situation can be summarized in two major themes: proactivity of the public administration and detail of the legal framework in force.

In any of the land readjustment alternatives present in Germany or Japan, the public administration always assumes itself as the central figure of the entire procedure, which contrasts with the passivity of Portuguese urban planning practice which, as we have already clarified, has been changed with the recent legal revisions, but it still remains far from the other analyzed countries.

The German model requires a public administration with a wide range of financial and organizational resources, making it difficult for countries that do not have the same levels of development to assimilate it. Which is the case of Portugal, where municipalities often face a lack of financial resources, but also technical ones.

On the other hand, the Japanese model already appears to be more likely to adapt to the Portuguese reality. Although it still puts great pressure on the technical resources of public bodies, it makes it possible to alleviate this limitation by opening up the possibility of land readjustment to be carried out by other types of entities in addition to the public administration.

However, in both cases, the high promotion of private participation by public bodies is a constant, including in non-compulsory versions where the consent of individuals is not an obligation. Aspect that can be introduced in the Portuguese context, either through individual or collective discussions with landowners, as is the case in Germany in non-compulsory models, or through an active position of the Japanese public administration in negotiations between landowners in the situation of a voluntary model.

Another condition in which Portugal has a lot to improve is the detail of its legislation. As we were able to ascertain, of the three countries under study, Portugal is the least explicit when regarding to its land readjustment procedure. The omission of guiding criteria for the equalization mechanisms, as

well as the lack of a standard method for assessing the value of the land, can introduce obstacles to the process, namely in terms of the collaboration of landowners. However, the imposition of methods and the consequent densification of the legislative framework, as in the German case, can also be counterproductive, insofar as it prevents the use of tools depending on the situation to which they are best suited. As such, it is in the Portuguese interest to converge to a Japanese-style framework, in which even in aspects where the legislation is not very detailed, not binding the actors in the land readjustment procedures to certain methods, there is a tendency to converge towards the use of a restricted group of these, providing some standardization of the entire procedure. The same applies to the documentary content, and it is convenient to evolve towards a definition of the essential documents to be provided for the correct application of the execution units.

#### **4. Interviews analysis**

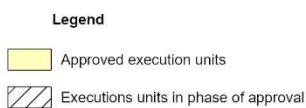
For this panel of interviewees (6 elements), personalities were sought who, due to their vast academic and/or professional experience, in the contexts of the execution units, could contribute with interventions of added value for this study.

Two of the most important findings through this phase consists in: (i) the interviewees agree that, although the execution unit is efficient at programming municipal plans, there has been a twist of the initial function of the execution unit, programming the execution of plans. In the absence of municipal territorial plans of a lower hierarchical order, the execution unit is used almost in advance, constituting the opportunity that municipalities have to implement all the missing elements of their planning framework. The execution unit is, therefore, the instrument capable of supplying all the existing deficiencies, gaining a dual function of planning and programming, which the system seized upon to postpone planning at the Urban Zoning Plan and Detailed Plan levels; (ii) and also the interviewees find the current state of Portugal legal framework as a necessity since it has to encompass all the municipalities with all their different needs. In fact, they characterize this greater regulatory liberty as an essential gain in flexibility so that each municipality can adapt different modalities of execution unit procedures to their specific contexts, not preventing, even so, that even within the same municipality there may be different applications. Nevertheless, the various interviewees do not defend that the current situation is the best, some even classify it as insufficient. Despite the claim that a tighter regulation of the execution unit figure would create unnecessary entropy and even, eventually, be harmful to the effectiveness of this instrument, they understand, however, that it is fundamental to have guides of good practices, contributing to the assimilation of the best modalities to follow according to the situation in question.

#### **5. Case study**

The case study focuses on the municipality of Lisbon (CML) and its execution units. The decision for this municipality is justified by being a municipality with relative experience in using the figure of the execution unit, while having a good number of execution units (16). In addition to the above, the option for a single municipality aims, in part, to minimize the complexity of an analysis of a figure that, given the freedom of the Portuguese legal framework, presents a multitude of representations.

Having said that, the municipality of Lisbon comprises 11 execution units that are already approved by the municipality, while the other 5 are still in the phase of approval as we can see in Figure 1:



*Figure 1 - Execution units of Lisbon Municipality*

From these 16 execution units was compiled all the information in relation to 10 characteristics: (i) date of 1º project and date of approval; (ii) relation with other municipal plans; (iii) function in accordance with the classification of Souza (2009); (iv) Area; (v) execution systems; (vi) landowners; (vii) project content; (viii) urban solution detail; (ix) *perequação*; (x) and degree of execution.

The data mentioned above was synthetized in Table 2:

Table 2 - Execution units of Lisbon municipality

EU/Characteristics	1º Project Date	Approval Date	Function	Area (m²)	Execution Systems	Landowners				Project Content	Urban Solution Detail	Perequação (Group)	Degree of Execution
						N.º	CML	State	Majority (≥ 50%)				
Ajuda	2020	2022	Class 3	45,328.79	Private Initiative	2	...	×	Private	●	Urban Design	2	●
Alcântara Nascente	2015	2015	Class 2	47,852.55	Private Initiative	2	×	...	CML	○	Urban Design	...	●
Alcântara Poente	2017	2017	Class 3	61,697.89	Private Initiative	5	×	...	Private	●	Urban Design	3	●
Avenida Gomes Pereira	2021	2021	Class 3	6,365.20	Private Initiative	2	×	...	Private	○	Zoning	4	●
Conde Nova Goa	2016	2018	Class 3	10,706.00	Private Initiative	3	×	...	Private	●	Urban Design	4	●
Entrecampos	2018	2018	Class 2	140,999.00	*	1	×	...	CML	○	Urban Design	1	●
Poente da Gare do Oriente	2015	2019	Class 2	22,554.60	Cooperation	3	×	...	Private	●	Zoning	2	●
Praça de Espanha	2012	2016	Class 4	104,639.33	Cooperation	2	×	...	CML	○	Zoning	...	●
Quarteirão dos Marianos	2011	2013	Class 3	11,705.20	Private Initiative	4	...	...	Private	○	Zoning	4	●
Torre do Fato	2013	2013	Class 3	97,887.00	Cooperation	43	×	×	...	○	Urban Design	3	●
Vale Formoso de Baixo	2020	2021	Class 3	9,159.52	Private Initiative	4	...	...	Private	●	Zoning	4	●
Marquês de Olhão	2016	...	Class 2	12,942.00	Cooperation	6	×	×	...	○	Urban Design	3	...
Olivais Sul	2021	...	Class 3	71,752.77	Private Initiative	2	×	...	Private	●	Urban Design	3	...
Parque Urbano da Pontinha	2015	...	Class 4	281,768.52	Administrative Imposition	14	×	×	CML	○	Zoning	1	...
Quinta da Torrinha	2017	...	Class 3	91,574.00	Cooperation	N.A.	×	N.A.	N.A.	○	Urban Design	3	...
Quinta do Olival e Casal dos Abrantes	2017	...	Class 3	131,295.00	Cooperation	N.A.	N.A.	N.A.	N.A.	○	Urban Design	3	...

\* Only 1 landowner  
N.A. - Not Available

○ - less content  
● - + more content

● Not executed  
● In execution  
● Executed

Alcântara Urban Zoning Plan (approved in 2014)  
Madragoa Rehabilitation Detailed Plan (approved in 2016)

Data relative to:  
June 2023



From the table above was possible to identify 4 different groups:

- I. Group 1 (new urban areas) - comprised by the execution units of Alcântara East, from Entrecampos, to the west from Gare do Oriente, and from Marquês de Olhão.
- II. Group 2 (urban areas of illegal origin) – in this group reside the execution units of Torre do Fato, Quinta da Torrinha, and Quinta do Olival and Casal dos Abrantes
- III. Group 3 (private initiative) – the largest of the groups is constituted by the execution units of Ajuda, of Alcântara Poente, of Avenida Gomes Pereira, of Conde Nova Goa, of Quarteirão dos Marianos, of Vale Formoso de Baixo, and of Olivais Sul.
- IV. Group 4 (public green areas) – formed by the execution units of Praça de Espanha and Parque Urbano da Pontinha.

## **6. Conclusions**

The main objective of this study was to assess whether or not execution units are effective as a way of programming the execution of municipal territorial plans. The answer to this question seems evident from a theoretical point of view, noting that the set of interviewees and the literature review carried out confirm the effectiveness of the execution unit. The vast international expression that this instrument has (in the form of land readjustment) attests to this premise. However, from the results of the case study analysis, we found that of the 16 execution units under study, only one took effect in the territory and, thus, executed the plan. Even adding those that are in the execution phase, we would only total six, which taking into account the initial sample is a reduced number. The case takes on even more complex contours when we consider that some of these execution units already cover time intervals of around 10 years. Even though the relative weight of this period of time is difficult to determine, as the deadlines for carrying out urban operations must be considered, it is still a relevant indicator.

Another objective was to identify what were the most important factors that would increase the probability of a determined execution unit being successful. And the results were the following: (i) integration with other plans; (ii) an atmosphere of trust between all parties involved, fostering greater participation and a culture of collaboration in decision-making processes; (iii) public sector with technical knowledge, willingness and financing capacity; (iv) access to a rigorous and updated cadastral maps; (v) the existence of a robust and growing market; (vi) low number of landowners involved; (vii) and one of them having the majority of the land.

This time, and in summary, we can understand that the execution unit is an essential instrument in the programming (of the execution) of plans, with a wide spectrum of applications, which can have better or worse results according to the pre-existence of certain success factors. However, given the nature of the procedure itself, which involves extensive negotiations in the search for the best solution for all stakeholders, it will always fall victim to certain conditions that cannot be controlled. Nevertheless, they can be minimized, with the appropriation of two characteristics present in the international context mentioned above (proactivity of the public administration and detail of the legal framework in force).

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