14 In the opinion of municipal representatives, the development of new areas of economic activity (industrial, commercial and services) represents a possibility for local financing. The promotion of an industrial estate by private initiative initially involves a set of benefits for local bodies: Short and medium terms income in the form of project licences, long term income in the form of IAE (Impuesto sobre Actividades Economicas - Business Tax) (medium and large companies), the use of the space by municipal services through transfer of the corresponding percentage of land, generation of local employment. However, if the planned occupation of land does not lead to the completion of the industrial estate once it is up and running (provision of public services: electricity, drainage, water, etc.) will be distributed among the members in the right proportions.

15 Fernando Nebreda Díaz de Espada, managing director of Orasoaldea, spoke along similar lines when opening his talk by saying “I am going to present the most relevant issues of an experience that is based on the existence of the shared political desire of several municipalities to join together and concentrate their strengths and resources in order to promote an industrial site. (...) this desire is more important than a clear legal structure…”

16 Edict of May 9, 2006 that made public the draft law of June 29, 2006.) (Minutes of the meeting of La Selva CSPS (Supramunicipal Council of Sustainable Planning) of June 29, 2006.)

17 For more information see the Generalitat de Catalunya DMAH web site.

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19 Ramon Forcada i Pons (2005); Actuacions industrials i d’activitat econòmica d’abast plurial (Projecte de la Conselleria d’Economia i Comerç de la Generalitat de Catalunya). For more information see the web.

20 With respect to the way that costs and benefits can be distributed, in presenting the experiences of the county of Oiarzabal, its managing director, Fernando Nebreda, said: “We have seen the fundamental elements of the experience that is taking place in this county of Guipuzcoa. The agreement was signed by the mayors of the municipalities of Errenteria, Lezo, Oñate and Passas and the president of the Development Agency on February 11, 1998, and it is currently fully operational, and is receiving 50% of the annual IAE of the operations that have been performed. Some might ask whether the reforms to the IAE have affected this agreement. Well, the way we understand it (...) there is no reason why it should have any effect because it is purely a calculation criterion. Even if the IAE were to disappear, the desires expressed in the agreement would require another calculation criterion to be found that would lead to roughly similar amounts”.

21 Graziella Guargiu, Strategia territoriali per la pianificazione sostenibile delle aree produttive: le esperienze della Provincia di Bologna.

22 With respect to the way that costs and benefits can be distributed, in presenting the experiences of the county of Oiarzabal, its managing director, Fernando Nebreda, said: “We have seen the fundamental elements of the experience that is taking place in this county of Guipuzcoa. The agreement was signed by the mayors of the municipalities of Errenteria, Lezo, Oñate and Passas and the president of the Development Agency on February 11, 1998, and it is currently fully operational, and is receiving 50% of the annual IAE of the operations that have been performed. Some might ask whether the reforms to the IAE have affected this agreement. Well, the way we understand it (...) there is no reason why it should have any effect because it is purely a calculation criterion. Even if the IAE were to disappear, the desires expressed in the agreement would require another calculation criterion to be found that would lead to roughly similar amounts”.

23 Ramon Forcada: “In reference to the management and maintenance of taxation, there would be a need for the statutes to establish that both the costs derived from the maintenance of the industrial estate once it is up and running (provision of public services: electricity, drainage, water, etc.) and income (rates, property tax, business tax, land value added tax, etc.) will be distributed among the members in the right proportions.

The councils will delegate authority to the ‘mancomunitat’ or consortium in relation to rates and special contributions, as well as fixing public prices. But they cannot be granted the authority to establish taxes, which should be the authority of the relevant councils. Either by agreement or by statute it may be established that the council can transfer to the association a portion of the income obtained by the industrial estate through application of taxes. This management by the ‘mancomunitat’ or consortium may not obstruct the constitution of an administrative conservational association”, Incasol.

**AREAS OF ECONOMIC ACTIVITY IN TERRITORIAL PLANNING**

**Juli Esteban i Noguera**

1. **Principles**

Spaces where intensive economic activities take place, along with those used for housing and infrastructures, to different degrees constitute the most perceptible forms of occupied land and are those that provide it with a structural function. Other spaces, though also hosting economic activities, may - due to their extensive nature - play the role within the territory of being open spaces that form part of the necessary balance between extension and intensiveness, soft and hard, permeable and paved, rural and urban, etc., which does not necessarily have to be quantitative, but structural.

Territorial planning seeks to provide guidelines for rationality and efficiency among the three above-mentioned components of land colonisation: agrarian areas, infrastructures and settlements. To do this and in order to maintain coherent attitudes in different territories and circumstances, the Generalitat de Catalunya’s Programa de Planejament Territorial (Territorial Planning Programme) has proposed fifteen criteria expressing the logic that makes sense of contemporary territorial planning.

Although the criteria should be understood as a whole and many of them are highly transversal in nature, we can highlight here those that are of the greatest relevance to the subject of this article.

**Criterion 8. To favour the coexistence of activities and housing in urban areas and rationalise the implantation of industrial and tertiary estates.**

**Criterion 10. To ensure the compact and continuous nature of growth.**

**Criterion 11. To reinforce the nodal structure of the territory through urban growth.**

**Criterion 12. To make mobility a right and not an obligation.**

The objective of mixed urban areas in which activities and housing coexist is keeping with the reinforcement of the dense and varied Mediterranean city has very much been assumed nowadays, at least in ideological terms. I do not believe that it has been assumed quite so much in terms of specific projects. Whatever the case, the spatial interrelationship between housing and activities is an objective to be defended at least insofar as this coexistence or proximity should not have more negative than positive effects for one use or the other.

It could be said that in this historic period for cities, the factors that benefit the coexistence of activities and housing are the more dominant. The increase in the number of jobs in tertiary activities (trade and services) in comparison with industrial and some primary jobs that may once have been of importance in certain areas (such as mining and the energy sector), has led to a high proportion of employment that can be located in a fully urban context. If we also consider those small-scale industrial activities that continue to be located in the urban environment, we could safely say that urban areas that contain housing and compatible uses, and that have been developed continuously through growth from the historic core, are the spaces offering the largest amount of employment and are therefore the main areas of economic activity.

However, it is also true that there are factors that tend to lead to specific areas of economic activity being differentiated and located in separate parts of the general, mixed-use urban fabric. These factors are derived from the incompatibility, either objective or subjective, of certain activities and their containers with urban fabrics in which housing is the dominant use. There is, however, a need to determine and analyse these factors.

Incompatibility due to the disturbance, danger or unhealthiness caused by activities is a sufficient reason to promote specialised areas for such activities. Another important factor is the size of the spaces and buildings that some of these require. It is certainly difficult to properly fit elements of anything greater than two hectares in an urban street network. Apart from geometric problems, a large industrial or logistic site located in an urban area will generate a very large void in the immediate surroundings where there will be very little urban intensity. There may also be difficulties, although the effects on the surroundings could be very different, if the site is destined for commercial, hotel, leisure or public-service purposes. In these cases, urban intensification could occur, although in some cases disturbances to housing could be generated as a result of the intensification itself.

We should add that in recent decades there has been a progressive increase in...
the size of commercial, hotel and service sites and the most common response has been too simple and lacking in creativity. These elements (important as centres of economic activity but also as generators of urban relationships) have been located outside of the city, often in industrial estates. Certainly, from a particular size onwards, the only possible site for certain facilities is outside of the city in large-scale estates or on specific sites designed for them. I also believe that we should consider two things here. The first relates to planning attitudes with regards to the increasingly oversized nature of industrial, logistic, tertiary, service, tourist, recreational sites and so on, which necessarily have to be settled outside of urban areas and on sites whose location is difficult to forecast. The logic behind all these implantations of areas with economic activity inevitably separates them from the territorial model we seek, which is one based around the nodal structure represented by large and medium sized cities and which avoids, as much as possible, the proliferation of spatially autonomous areas of activity (and residence). In whatever case, and although the expected result is not the one we would like, we should accept that some economies of scale at location have witnessed the end of Fordism and are still important for certain economic activities; therefore, the territory must accommodate at least a few sites of this type. Similarly, it would be useful to know how to make an evaluation in each case of the sense and effects of the site: its strategic value within the territory, the reasons for such a large-scale demand, the mobility flows that will be generated and the future alternatives, should the activity end. This evaluation should especially consider the differences between those activities in which a large scale is a structurally functional requirement, and others where a different business focus would enable them to split up and locate the smaller parts in different places. Another important factor to evaluate is the distinction between those activities that provide few jobs and do not have direct users (such as logistic centres) and those where the opposite occurs, such as services and shopping centres.

The ideological basis of this analysis is none other than the consideration that the implantation of new and territorially isolated areas of activity (even though they are large) is in principle topologically undesirable, but that we should accept that territorial functionality and economic (and sustainable) development has to involve at least a few of these.

The second reflection is on the frequent incapacity of urban planning to create urban spaces that can integrate new forms of activity that are perfectly compatible as components of the new mixed-use fabric of cities. The typologically residential specialisation of new urban sectors highly limits the capacity for mixing new housing with other uses, but this need not be an impediment to the coexistence in integrated fabrics of residential buildings and other buildings used as office space, for commerce, for hotels, etc. Therefore, especially in new urban extensions, urban planning should offer the right sites and volumes to serve the functional needs of buildings that can be used for urban activities that, due to the lack of adequate conditions, often end up being located in industrial areas, which dissipates their capacity to act as structuring elements within new city fabrics.

In short, and as can be directly gleaned from the criteria exposed, territorial and also urban planning must foster the mixed and integrated growth of urban areas that can play a vertebral role in the territory and restrict to the bare minimum those implantations that do not constitute proportionate and well articulated extensions of the existing urban areas. This is the idea of “rationalising the implantation of industrial and tertiary estates” that was expressed in the previously mentioned criterion.

The Programa de Planejamento Territorial’s criteria suggest that the desideratum is a territory in which:

- The creation of new urbanised sites (for housing and activities) should be polarised in large and medium sized cities that offer the conditions to extend their urban area and have the capacity to construct the nodes that must form part of the functional structure of the territory as a whole.
- Other cities and small urban nucleuses should grow in a moderate fashion that does not modify their position within the territorial structure.
- Rural areas that do not have to be occupied by the urban extensions should substantially maintain their integrity and only receive those buildings that are constructed for the purposes of the agrarian or rustic activities performed there.

However, we know that this will not be 100% possible and there would have to be deviations of different types from the three objectives; specifically, some areas of intensive economic activity that do not fit in with these established guidelines would have to be admitted. In whatever case, as well as needing to be justified in terms of the advantages they would bring to the territory in relation to economic development and in terms of the minimisation of the number of implantations, the exceptions would need to be located somewhere that complies with certain conditions of functional, and also formal, rationality in relation to infrastructures, the territorial surroundings and the landscape.

2. The difficulties

Territorial planning involves two congenital difficulties in reference to the vectors of time and space, which despite being common to all physical planning to a certain extent, are of particular importance in this case. The first difficulty is spatial and is derived from the division of the territory into municipal regions, each of which has its own personality and its own projects; the second is temporal, and is derived from the nature of the plan and the procedure of formalising and processing it, which can lead to a relatively long period of time between the definition of proposals and their execution. A third and also temporal difficulty that should be considered from the outset of any planning process is the high degree of uncertainty in forecasting future episodes and circumstances.

However, it has to be said that these difficulties can be somewhat overcome when defining the nodal model of growth proposed by territorial plans. The indication of certain areas that will polarise urban extensions does not involve determinations of form, and can be argued with sufficient objectivity depending on the existing nodal structure, the foreseen connectivity and the availability of land. But we should not forget that the nodal structure implies the spatial distribution of most of the employment. Meanwhile, the urban development of nodes and cores will occur through municipal urban planning’s determination of sites that, due to their location in relation to existing urban areas, offer implicit prospects for urban development. Therefore what the territorial plan indicates with respect to the nodal potential (or not) of an urban area’s development does not contribute new and immediate urban prospects, and therefore does not introduce new factors that can distort the land’s market value, which inevitably structures its prices in accordance with the imagined prospects based on urban and topographic reality.

The difficulties are much larger in relation to territorial planning’s possible determination of new areas of economic activity that are separated from urban areas. As is well known, there are many local councils that aspire to having an industrial estate that is separate from the urban core and can be used to locate already existing but supposedly disruptive workshops and industries, offering the option of locating economic activities that can generate jobs and will create income for the generally deficient municipal funds.

In the present-day context, and from a municipal point of view, this objective is incontrovertibly logical, but its results are evidently unsatisfactory from a territorial perspective in terms of the landscape and environment. We could add that this model for setting up an activity could leave plenty of room for functional improvement, but, for obvious reasons, this is not a particularly valued factor given the simplicity involved
in independent management by individual councils in relation, if possible, to sites where the landowners’ attitudes are favourable.

The objective of rationalising these urban implantation processes is an imperative for territorial planning that is legally founded by the general principles for urban planning actions of the Llei d’Urbanisme (Urban planning law) and especially articles 3 and 9 of this Law, which are specifically transferred to the criterion for “rationalising the implantation of industrial and tertiary estates” that was explicitly adopted by the Programme.

In accordance with this criterion, territorial planning clearly establishes two complementary lines of action for the creation of areas of activity that are typologically differentiated from urban networks.

– Sites that are continuations of existing urban areas for those activities that are compatible with a certain proximity to housing. Of an extension that is in principle proportionate to the reality of the urban area and under the requirement that the urban planning and architecture of the buildings and landscape provide the most appropriate solutions for the morphological integration of these areas with the contiguous urban networks and the image of the surrounding rural space.

– Minimisation of the number of isolated implantations (or that are not proportionate to the contiguous nucleus) leading to larger-scale concentrations that could include more services and a more carefully considered territorial implantation.

In order for this concentration model to provide a response to motivations for creating new industrial estates and for this to be a credible alternative to the dispersion that follows municipal division, the formulas for creating these areas of activity would have to enable the participation of the town councils with a vested interest in the benefits and charges of the implantation, regardless of localisation in one municipality or another being a determinant factor.

This is a perfectly achievable objective, but it would be foolish to ignore the difficulties, which are made all the more serious due to inexperience and, often, to a lack of trust. The use of this alternative model undoubtedly requires demonstrative actions and the provision of incentives and cohesive elements by supra-municipal administrations and most especially by the Generalitat. It would also be useful for improvements to be made to the Local Administration’s legal regulatory framework in the sense that this should clearly privilege intermunicipal collaboration as opposed to individualism.

The model for concentrating separate areas of activity also involves a series of difficulties in relation to the locations of these areas. If the aim is for the territory to have relatively few, larger and preferably territorially integrated, separate areas of economic activity, the question of where these are to be located is of particular importance. However, once the municipal logic has been surpassed, the question is: who determines the locations of the new areas of activity on a territorial basis? It seems the answer has to be territorial planning.

That will surely be through a process of territorial planning that can evaluate the different concurring variables: the general territorial model, foreseeable demand, accessibility, available services, environmental values, landscape, uses that prefer certain locations over others, etc. But this does not mean that it would be recommendable for territorial or master plans to determine the locations chosen for such actions.

It is fairly common knowledge that a plan-based formal recognition of a site’s prospective value that had not been considered earlier, or was uncertain or more or less distant, leads to landowners being gifted a generous increase in the value of their property; until the present, this has frequently been an added difficulty for developing actions.

This problem is hard to solve, especially in territorial or master plans that take shape at a relatively distant moment from the action (which must pass through more intimate and precise urban-planning instruments), and where it is difficult to establish agreements in which the owners do not overvalue the land - making it problematic to proceed with the plans. We should also remember that what can be done in municipal urban planning, given the size of the region and the familiarity of the owners and operators with vested interests, is more difficult in the wider territorial arena.

These concerns could be substantially reduced if the criteria when evaluating expropriations for the purposes of urban activity were genuinely independent of the plan’s own expectations, and if this could enable the generalisation and flexibility of public actions for expropriation at prices that were reasonable and not derisory. Meanwhile, as far as possible, there is a need to prevent the spatial expression of proposals for action leading to the rural land being overvalued by its owners and thus posing difficulties for carrying out the necessary actions.

3. Planning techniques

3.1. The quantitative objectives

The quantity of space for non-primary economic activities depends on the economic growth expected. In fact, demographic growth and the corresponding space for new housing also depends on economic growth, as the jobs that are created are also a cause for immigration, which will cause the population to increase. Without immigration, the population of Catalonia would clearly decline over the next few decades. In short, it could be said that it is on the basis of the hypothesis of an increase in jobs that we can define the future quantitative scenarios required to provide a response to territorial planning.

There are two additional comments: first, although perhaps debatable, the objective of economic growth has not been questioned by any significant political force in Catalonia. Second, most of the economic growth in our country corresponds to the creation of jobs; growth resulting from an increase in productivity is of very little relevance.

Hypotheses and predictions regarding the creation of jobs are therefore starting points for defining the scenarios in which there is the need of space for housing and for economic activities.

Economic activity is spatially a far more imprecise concept than the concept of housing. Hence, while territorial planning adopts the criterion that housing should be more or in continuous and mixed urban networks, economic activities, as well as preferably being integrated in urban networks of this type, may also in some cases be more conveniently located in specialised areas. It should be added that the entails adopted by the plans establish conditions for the distribution and integration of the growth of urban areas, but not a globally quantitative in the territory. On the other hand, given that specialised areas are considered a model of implantation to be limited to those cases where they are justifiable, it would be useful for the territorial plan to contain at least one approximate quantification of what surface area or land would be required, and to evaluate possible distribution.

The methods of calculation would inevitably be estimative and results would have to include a safety factor, but methodologically they would have to follow a pattern with the following steps:

a) Expected new jobs.

b) Subdivision into sectors of activity in accordance with the existing situation and predicted evolution.

c) Estimation of: jobs of an urban nature, jobs in specialised areas and jobs in no fixed location.

f) Surface area of land required.

INDUSTRIAL ESTATES: LOCATION TRENDS AND ACCESSIBILITY / 100
3.2. Spatial distribution

If all of the land was publicly owned (or its transformations could always be decided by means of public policy) and the supra-municipal authority monopolised urban responsibility, the next step would be the conversion of the necessary hectares for specialised economic activities, proposing a set of well delimited actions in the most appropriate places in terms of topography, accessibility, availability of services and landscape integration. This is a complex task, especially for an instrument that, in addition to its broad focus, also requires precision at the local scale; but nevertheless it is perfectly feasible. In whatever case, the two further reasons previously mentioned require a more careful approach in order to make room for those operations that need to enable action as agreed with and between councils and, if relevant, to make room for the necessary acquisitions of land to facilitate adequate leadership by the public operators of urban development in this type of area.

Therefore, the determinations made by territorial planning in this area should be undertaken with a great deal of prudence and should result in assignations of more or less quantified supra-municipal transformations, which would need to constitute areas of economic activity within reach of and of interest to the surrounding municipalities.

The solutions to the problems that cannot be dealt with via the level of spatial indetermination maintained by this formula will have to be guided by the establishment of conditions for implantation in the area in relation to configuration, access, provision of services, image, etc. Some of these conditions will be of general relevance in the area of the territorial plan while others may refer to specific locations.

In the first territorial plans produced by the Programme, the creation of new specialised areas of economic activity was governed by dispositions such as the following:

- Creation of new industrial estates or, in general, new areas of economic activity (and, if relevant, the extension of existing areas, when their size means they transcend the boundaries of the municipality), must be associated with an inter-municipal agreement that enables the equal sharing of benefits and charges relating to the action.

- The Plan indicates the pluri-municipal areas that could be the object of these actions. The municipalities involved must be active agents in the decisions concerning the implantation and operation of these new areas of economic activity.

- The initiative to develop an area that might affect the land of one or more different municipalities requires the agreement of all of the municipalities involved in the area indicated by the Plan, accompanied by the establishment of formulas that enable equal sharing of the benefits and charges resulting from the action. Municipalities that so desire may opt to refrain from participating. Also, the municipalities that neighbour the pluri-municipal regions established by the Plan may request to be incorporated in the action and must be admitted if their spatial implication with this action is justified.

- When the action does not take place due to a lack of agreement between the municipalities but where simultaneously there is a general interest in the territory for it to be carried out, the Generalitat de Catalunya may promote this via the Institut Català del Sol (Catalan Land Institute) and provide the adequate mechanisms for the equal distribution of the benefits and charges of a social and financial nature that are likely to affect the municipalities as a result of the plan.

- Actions for the implantation of areas of economic activity will be specified using whatever instruments of urban planning are necessary.

- The plan of initiatives for new areas of economic activity must foresee and guarantee access via the transport network and the provision of power supplies considered necessary, in accordance with the size of the area and the expected activities.

This regulatory basis will undoubtedly need fine-tuning both in relation to the procedure for action and the conditions of implantation, especially due to the incorporation of the Pla de les Directrius de Paisatge (Landscape Directives Plan), which establishes legislation in this ambit.

3.3 Unexpected opportunities

Apart from clearly indicating the land that cannot be the object of urban development under any circumstances, territorial planning establishes a framework in other areas for action based on the structural definition of the model and actions. This framework is markedly flexible with regard to the formal concretion of urban and infrastructural implantations. However, there is always the need to consider that the definition of regulations for development will also come across the dilemma between the possibility of leaving out actions that may be of interest to the territory (but that do not comply with one of the established conditions) or that are too imprecise in their definitions of the same (which could lead to undesirable implantational). This dilemma is particularly relevant in relation to actions involving the implantation of economic activities. The continuous process of change to their content and requirements can lead to the conditions, established on the basis of the current situation and dynamics, possibly omitting new options or alternatives that could be of veritable territorial interest.

For these reasons, territorial planning must have the capacity to incorporate unexpected actions considered coherent with the main objectives of the plan and of declarable territorial interest. There should therefore be a possibility for these actions to be formally considered by some kind of method as implicit elements of the plan’s intentions, and for these not to require any kind of modification to the territorial plan, which would involve as long a process as its original formulation. To do this, territorial plans indicate that they consider part of their provisions to be exceptional actions recognised by the Comissió d’Urbanisme de Catalunya (Urban Planning Commission of Catalonia) as being of territorial interest, which is a pre-requisite for any kind of urban-planning procedure.

However, it is established that these possible exceptional actions, which are limited to objectives concerning service or economic activities, should be subject to the following conditions:

a) They must be of a size and have the functional requirements to justify a site that does not follow the guidelines for the extension of urban areas established by the Plan. Those actions that could occur within the framework of the Plan’s spatial determinations are not considered exceptional.

b) The motives for fostering territorial interest in the action will be the improvements that this could represent to the territory in terms of services, environment, economic development, international projection, social cohesion or standard of living.

c) The action must propose satisfactory environmental solutions in relation to access requirements, in terms of expected flows and the provision of water, energy, telecommunications and waste removal services.

d) The action will comply with the requirements of planning, architecture, materials, colours and complementary vegetation that ensure its acceptable integration in the territory’s morphology and landscape, in accordance with the criteria established in the plan’s regulations, specifically the Landscape Directives. The draft proposal for the project presented to the Comissió d’Urbanisme de Catalunya will include whatever specifications are considered necessary in relation to these matters.

e) The actions will exclude the use of housing, other than that which will be used for the permanent vigilance of the installations.

It should be added that the inclusion of these actions in master plans that
may deploy the territorial plan are also understood to be a form of recognition of their territorial interest and their conformity with this.

The considerations noted here are to a large extent also applicable to the problem of the determination of new areas of economic activity in master urban plans. I also feel that, given the more precise and intimate nature of such plans, the matter requires some specific considerations that are not strictly relevant to the current discussion, and which still require a certain amount of methodological fine-tuning.

To conclude, I wish to highlight that, despite their limitations and the lack of practical experience, territorial plans could contribute to the spatial rationalisation of implanting economic activity. Nevertheless, for the proposals to be fully effective, there is a need to proceed by increasing the following variables:

– Capacity for action of municipalities and local supra-municipal bodies.

– The desire for municipalities to cooperate.

– Synergy between plans and actions.

– Capacity to acquire land at reasonable prices.

Without preventing it from proceeding as effectively as it can, certain vital changes need to be made to the legislative framework in order to achieve an operative context that benefits from the spatial rationalisation of areas of economic activity.

1 The criteria are detailed in chapter 2 of the reports of all of the territorial plans, that can be consulted on the Departament de Política Territorial i Obres Públiques website (www.gencat.net/ptop).