

# COWORKING AREA IN VILAR DE CANES AS A PROPOSAL FOR THE REVITALISATION OF THE LABOUR MARKET IN L'ALT MAESTRAT

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Al Padrí,

i a tots el que no m'heu vist acabar la carrera.

Als meus pares i al meu germà, gràcies per tot l'esforç i estar sempre.

A Mireya i Marta.

A la CAC, als llangostos, i a una comarca que va morint.

A totes les persones que heu format part d'aquesta etapa.

LVSM

Abstract

The purpose of this paper is to analyze some of the different methods for the delimitation

of Local Labour Markets (LLM). In addition, after the review of some empirical works, the

function of the Pacts for Employment that are being developed in the Valencian

Community will be commented, guiding the project in the Pact for Occupation Alt

Maestrat. Next, the problem of the Alt Maestrat region will be studied, specifically, the

municipality of Vilar de Canes that suffers from depopulation. In addition, an idea will be

proposed to amend the vegetative decrease, which will consist of the implementation of

a coworking area in this municipality.

Key words: Local Labour Market, Employment Pacts, Depopulation, Alt Maestrat.

JEL Classification: J21, J24, J64, R23

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#### 1. Motivation

The main motivation for the choice of this theme and especially of this work is the feeling that, personally, I have towards the town of Vilar de Canes and all its surroundings.

To contextualize it a little, I was born and raised in this small municipality of l'Alt Maestrat and year after year I see how it is dying little by little, never better said. Since the population is getting older and there are few births so for years that vegetative growth comes out in negative numbers. I want my children to grow up like me and my friends: surrounded by nature, without cars, alone with ourselves, but united, just like today. Without clocks and guiding us by whether or not it was night or as they told us all "quan s'ensenguen les faroles a casa", is the phrase that I remember most fondly and nobody cared about us all afternoon, because they knew we were fine, that everyone knew us and that if anything happened to us we could enter the house outside of what was necessary and that seems precious to me.

In part this work also goes for them and for all those who have this feeling of esteem towards our territory.

By doing this work, I think I can help to promote more initiatives related to this territory and if not, give visibility to a land that seems forgotten by all, try to make it known that in the interior there are also people, we also live and want to live. Let it be known that young people still want to fight for their land and for what is theirs. Also highlight that we want to evolve, we want improvements, we want to be able to live in the future, but also in the present. Many of us are forced to travel to study, work and so on; But we want, at least, to have the opportunity to choose, to choose whether we stay or go; But at this rate, we will only have one alternative and obviously it is not the one that any of us want.

I think I can bring to the study the point of view of an economist or future economist as well as that of a neighbor who is very interested in the subject. And that the strategies are realistic and can be carried out in order to benefit us all. I think as a person who has suffered all the consequences of depopulation in the first person, that I do not need to empathize with anyone, that they do not have to tell me anything about what it is to live it, because I have lived it in my own flesh. I therefore think that I can bring added value to research.

#### PART I: ANALYSIS OF THE LOCAL LABOUR MARKET

#### 2. Theoretical framework: Local labour market

A territory is a delimited space where different factors are shared, both social, economic, cultural, technological and legal.

Within a territory, there can also be different segregations, as in the case of the Spanish State, which is organized into autonomous communities, which in turn are divided into provinces and these are divided into regions. According to Palomar and Fuertes (2023) regions are local entities that are formed between neighboring municipalities that share common historical features. These were formed in times of King Jaume I in the case of la corona d'Aragó during the thirteenth century, through the granting of town charters, the distribution of land after the conquests... While this is true, it is also true that these regions have undergone different modifications over time adapting to political and social changes, with the search for greater socioeconomic homogeneity and the search for common objectives.

Referring to the legal framework in l'Estatut d'Autonomia de la Comunitat Valenciana, they are defined as: "The regions are administrative districts of the Generalitat and local entities determined by the grouping of municipalities for the provision of services and management of common affairs. The policies of the Generalitat will take into consideration the character of historical and cultural reality of the regions of la Comunitat Valenciana" (Ley 8/2010, de 23 de junio, de régimen local de la Comunitat Valenciana, 2010, Art. 53)

The objective of this work is to carry out an analysis of a territory within a region, specifically Vilar de Canes within the region of l'Alt Maestrat, in the province of Castelló, and analyze and try to improve the socioeconomic situation through the study of local labor markets as the main instrument.

As some of these characteristics are closely connected with the local labor market (hereinafter LLM), according to Salom-Carrasco et al. (1997) and citing Smart (1974), who delved into the study of these areas, the main characteristic of the areas of the LLM is to be able to find within these areas mobility flows around the place of residence and the workplace; that is, to observe the displacements of the population that makes to go from its municipality to its municipality of work and vice versa, the people who come to the municipality in question to work.

These shifts are known as commuting flows. These flows have been analyzed from different perspectives, and it has been concluded that the intensity and direction of these labor displacements offer valuable information about the driving forces of a city's growth, the location decisions of companies and households, as well as the willingness of individuals to migrate or tolerate long journeys to their place of work or places of leisure (Simpson, 1993). In this sense, commuting flows are presented as a point of connection between theories of urban development, business and residential location, labor mobility and even the microeconomics of immigration (Borjas, 1999; Cushing et al., 2004).

To consider an area to be an LLM, it is necessary to gather and group municipalities that exchange these flows of displacements with each other, creating what are known as inter-municipal labor markets. That is, the municipalities that relate to each other in labor effects create or are part of the same delimited intermunicipal market. (Llano-Vegetables, 2006)

One way to delimit areas of mobility that has begun to be used in different fields is that of positioning through mobile phone repeaters as stated in the report of the Secretaría de Estado de Infraestructuras, Transporte y Vivienda y la Subdirección General de Planificación de Infraestructuras y Transporte (2019) to study the data of the repeaters and be able to stipulate the trips or routes that are made at the interprovincial level.

This technology has also begun to be applied for the delimitation of the LLM following Belmonte et al. (2022) suggests this methodology to measure the links between the municipalities that are inhabited with those that perform the productive work.

In this work, the areas where people usually reside were taken as a reference, taking the positions via satellite where they spent most of the night, and four consecutive working days, for the collection of mobility data studying the daytime locations making it a requirement to spend about 4 hours a day for at least 2 of the 4 days studied. With all this, criteria set by Eurostat and the OECD (OECD, 2020) are applied, with this considering the LLM that already exist and see if they are well delimited, and apart from that also to calculate the number of LLM of the area and thus be able to delimit them properly.

It should be noted that this type of study using the data obtained in this way has only been carried out for regions such as Andalucia.

In la Comunitat Valenciana no study has been carried out using this type of data. Although from 2019 through experimental statistics in the INE we have data from the mobility areas through mobile telephony that collect information that could be useful for carrying out these works.

However, these data being regions with a very small population include us in larger territories, we see in this case that where Vilar de Canes is located, it would be in an area known as "Vilafranca del Cid and other municipalities<sup>1</sup>." By this I mean that we cannot seek to delimit the area of the LLM to a single municipality, because we have already seen that there is no data, but we can delimit them in different larger areas, that is to say that we can compare the data of the area of Vilafranca del Cid and other municipalities with that of Morella and other municipalities and see if between them there is some type of flow that can determine whether or not they belong to the same LLM.

While it is true that no studies have been carried out using this methodology, it is also true that there are other studies such as Salom-Carrasco et al. (1997) that analyzed the LLM for la Comunitat Valenciana using as variables the data of the resident employed population, that is, the people who live in a municipality; the local job offer, that is, the occupation that exists in the municipality both for the inhabitants of the same and for those of other municipalities; internal flow, such as the number of people who do not move from their municipality to work; and external flow, such as the number of people who do move; in order to classify the municipalities or areas in closed or open following thresholds. These markets are considered closed when they exceed the marked threshold of self-sufficiency, that is, they no longer need to interact with any other municipality in order to find employment, while open areas or municipalities are those that have a relationship of daily labor flows with other territories below the threshold of self-sufficiency.

What we try to delimit with this study are the independent and self-sufficient areas, in order to fully specify the LLM, that is, an LLM is limited when it is completely self-sufficient, that is, the external flows are lower than the internal ones. It is done in such a way that adjoining municipalities are added that do not exceed the thresholds of self-sufficiency, until the set of these reaches it.

In Salom-Carrasco et al. (1997) three different methods are used, we are going to focus on the algorithm of the maximum relationship value starting with the most dependent municipality<sup>2</sup>, which shows us 81 LLM. Within these we find the LLM of Castelló that restricts its area to adjacent municipalities of La Plana and allows to differentiate the LLM

<sup>&</sup>lt;sup>1</sup> https://www.ine.es/experimental/movilidad/experimental\_em4.htm

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<sup>&</sup>lt;sup>2</sup> It takes into account both the volume of flows and the size of the municipalities of origin and destination, starting with the one with the greatest dependence.

of l'Alcalatén and that of l'Alt Maestrat which is where the municipality of Vilar de Canes would be.

In the following table we see the self-sufficiency thresholds that have been taken into account in different studies applied in different countries and what they mean. We see that the first threshold of self-sufficiency (50%) was used to limit the LLM in France and Germany, the second threshold (75%) was used in the studies carried out in the United Kingdom; these two thresholds are the most used, although sometimes the 90% threshold is added.

According to Smart (1974) and as can be seen in the table, if we are within the threshold of 50% self-sufficiency, we would have external flows greater than internal ones, that is, we would depend on mobility, both those who come to work and those who go to another municipality.

If we are within the threshold of 75% self-sufficiency, external and internal flows would have a similar weight, that is, the same people who work within the area work outside their area, both leaving the area studied, and entering it.

Finally, if we look at the threshold of 90% self-sufficiency, we see that external flows are very weak, which means that most of the residents work in the same place.

Reference place of thresholds	Self- sufficiency threshold	Flows
France and	50%	Output/input flows > internal flows
Germany		
United Kingdom	75%	It can be considered neutral (External
		flows = Internal flows)
Added on occasions	90%	Very weak external flows.

Table 1: Thresholds Source: Authors.

Salom-Carrasco et al. (1997) show how the number of municipalities that adhere to the LLM are gradually increasing with the increase in the self-sufficiency threshold, since from 151 municipalities with the 50% threshold we went to 396 with the 75% threshold and we reached 502 municipalities with the 90% threshold.

Although it should be noted that the increase in the number of municipalities adhered to an LLM does not mean that the number of LLM increases, in fact it is shown that from the threshold of 75% to 90% the number of the LLM decreases considerably, this is because many municipalities that did not have a threshold of 75% with others do have it with 90%, so they would come together in the same LLM.<sup>3</sup>

With these data, by way of synthesis, we consider that the municipalities that are within the 50% threshold would be small areas and that are close to large cities, therefore, the flows are very powerful.

On the other hand, the municipalities that are within 75% do not have so much intensity in the interrelations, in this threshold the characteristics of the towns are more diverse than in the previous case.

Finally, if we look at the 90% threshold, the interrelations between municipalities are very lax. We would find small municipalities in rural areas, possibly with the very old population and also that the predominant sector in the municipality is the agrarian, since it does not require displacement to any other municipality.

One way to delimit the LLM in Ia Comunitat Valencian proposed by Casado-Díaz, et al.  $(2007)^4$  is through an evolutionary algorithm. This paper proposes a function in which taking into account the variables of the municipal areas and the employed population that moves from one municipality to another, in order to delimit a region. In the algorithm you can modify the criteria of the two methods used<sup>5</sup> ( $\beta_2$  = minimum autonomy,  $\beta_4$  = minimum size) both the (i) threshold that we decide of self-sufficiency: in the first method  $\beta_1$  = 0.70,  $\beta_2$  = 0.75 while in the second  $\beta_1$  = 0.75,  $\beta_2$  = 0.75 and (ii) the size of the areas: in the first method a size threshold has been taken into account ( $\beta_3$  = 20000 and  $\beta_4$  = 3500 ) while in the second no ( $\beta_3$ = $\beta_4$ =0). On the one hand, if we look at the maps with the first method the areas are much larger in size, but the number of areas is smaller, we observe that the municipality of Vilar de Canes belongs to the LLM of Vilafranca del Cid. On the other hand, if we look at the second method we see that there is a greater number of LLM but that its size is smaller, Vilar de Canes is part of the LLM of Vilafranca del Cid.

# 3. Employment pacts

Another way to delimit the areas of the LLM following Hermosilla-Pla (2018) are the pacts for employment that are characterized by voluntary union and cooperation between

<sup>&</sup>lt;sup>3</sup> To eliminate possible fictitious flows, distance-time ratios are taken into account, flows of more than 60 minutes are discarded. (Salom-Carrasco et al., 1997)

<sup>&</sup>lt;sup>4</sup> It should be noted that distances and times between municipalities have not been taken into account.

<sup>&</sup>lt;sup>5</sup>  $\beta_1$ = autonomy of A,  $\beta_2$  = minimum autonomy,  $\beta_3$ = size of A,  $\beta_4$  = minimum size

municipalities, associations and other members of the territory to implement employment initiatives, that is, they consider themselves members of the same LLM. They are an effective formula to reduce unemployment and improve territories through the participation and cooperation of public institutions, social agents and companies. These pacts are based on a bottom-up approach, networking and respect for local autonomy, which allows a more efficient planning, execution and evaluation of actions in the territories. In addition, they promote supra-municipal approaches and inter-municipal solidarity to generate opportunities and strengthen territorial cohesion.

In short, municipalities must be allowed to come together voluntarily for the implementation of development initiatives aimed at training and employment; and that allows them to opt for a certain sectoral specialization. All this under the conviction of the difficulties to adopt policies from the municipality and the commitment to the territory as a central subject on which to apply development policies.

Decreto 235/2022, del Consell de la Comunidad Valenciana <sup>6</sup>, establishes the rules and procedures for the adoption and recognition of territorial pacts in the Valencian Community, with the aim of promoting employment and local development in a participatory and sustainable way. A registry is also created for these covenants, where information and documentation related to their adoption will be collected.

The pacts for employment are constituted at the initiative of the municipalities and have the participation of the unions and employer organization with representativeness in the Valencian Community, their decisions are adopted unanimously. The regulations require a minimum of five municipalities, in addition to the local pacts for the employment of the three provincial capitals. In 2023 there are a total of thirty-four pacts, eleven of them in the province of Castellón.

Within these eleven of the province of Castellón, we are going to focus on the Territorial Pact for the Alt Maestrat Occupation.

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<sup>&</sup>lt;sup>6</sup> That updates Decreto 235/2022, de 30 de diciembre, del Consell, pel qual es regulen l'adopció i el reconeixement dels pactes territorials per l'ocupació i desenvolupament local participatiu i sostenible de la Comunitat Valenciana.

# 4. The region of l'Alt Maestrat and Vilar de Canes

The region of l'Alt Maestrat is located northeast of the province of Castelló, north of the Valencian Community, is composed of the municipalities of Albocàsser, Ares del Maestre, Atzeneta del Maestrat, Benafigos, Benassal, Catí, Culla, Sarratella (La), Tírig, Torre d'en Besora (La), Vistabella del Maestrat and Vilar de Canes; All of them are small urban centers, of no more than 1500 inhabitants, totaling 6.299 people and has a total area of 845,82 km2.

It limits on the north with the region of Els Ports, on the west with Aragon, on the south with the region of l'Alcalatén Map 1: Province of Castellón

Source: Authors.

and on the east with that of Baix Maestrat and Plana Alta.

It is a region that stands out for its abrupt relief where its mountains are part of the Valencian Iberian sector, highlighting as the highest point the Mola d'Ares.

A great name of rivers and ravines flow, of which we would highlight the Rambla de la Viuda (tributary of the Millars river), formed by the Carbonera and Belluga ravines and by the Montlleó river.

In the center of this region we find Vilar de Canes. The municipality of Vilar de Canes has an area of 15,94 km<sup>2</sup>, is located in the mountainous area that descends from the mola d'Ares to the Rambla Carbonera. It extends to the west by the slopes of the Sierra de Sant Cristòfol or Sierra de Foies, and bounded to the north and south by the Rambla Carbonera and the river Molinell, respectively. It borders the terms of Ares, Albocàsser, Benassal, Catí, Culla and Torre d'en Besora.7

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<sup>&</sup>lt;sup>7</sup> The most mountainous areas of the municipality are to the west with the Sierra de Foies and the Serrumba, and to the east with the Fembra, the Lloma del Mas d'en Burrero and the Tossal Redó. Between the two mountain masses are the Plà, Les Foies and the Plà del Carrascal. The term is crossed by several ravines that pour the waters into the Carbonera ravine and the Molinell river. It should be noted that in its term it is composed of different azagadores that is part of the

As for the road network, the two roads that connect the town are, in the southeast of the municipality the CV-165 and in the northwest of the urban center the CV-168, both secondary roads that leave the CV-15 (La Pobla Tornesa-Vilafranca).



Map 2: Distance in times

Source: Authors.

#### 4.1. Demography

Vilar de Canes has an urban nucleus of population, where most of the inhabitants of the town are concentrated, in addition to several population centers scattered throughout the municipality: the Camp del Moro, the Caseta d'en Miró, the Celda, the Covilar, l'Hostal de l'Esquerrera, the Mas d'en Climent, the Mas d'en Romeu, the Mas de les Cogullades,

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set of Livestock Routes of the Mediterranean Basin, adding about 43km of livestock routes, highlighting l'Assegador dels Serrans that connects with the ravines of the neighboring towns.

<sup>&</sup>lt;sup>8</sup> See annex I.

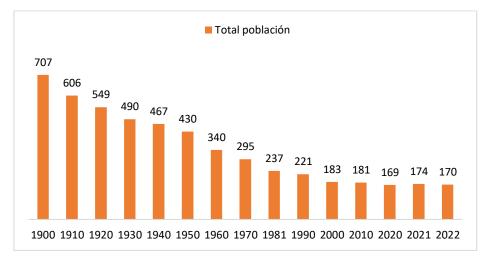
the Mas d'en Burrero, the Mas d'en Senyor, the Masico, the Pallisa, the Segarra, the Segarreta and the Solà.

Of which only five of them remain inhabited:

- the Mas d'en Senyor: It is located south of the village and we can find a farmhouse dedicated to rural tourism.
- La Pallisa: It is located southwest of the village near the Riu Molinell that delimits
   Vilar de Canes with the Torre d'en Bessora
- La Segarra and La Segarreta: They are neighboring farmhouses, separated by just 500 meters are located northeast of the town strategically next to the Assegador del Serrans and Camí Real and on the edge of the Rambla Carbonera.
- el Solà: It is located southwest of the village, on the right side of the CV-165, towards Torre d'en Bessora.

By way of summary we can say that the population of Vilar de Canes, decade after decade has been in constant decline (see graph 1), as in the neighboring towns and throughout the region.

We observe that its peak is in 1900, date furthest from today, with 707 inhabitants, we see that after ten decades, in the year 2000 with 183 inhabitants, the population has been reduced by almost 75%. But if we look from that decade we see that from 2000 to 2010 it has decreased only 1,1% and, although we continue to fall, the figures have stabilized considerably, since from 2010 to the present (2022) it has varied by -6,1%.



Graph 1:Evolution of the population in Vilar de Canes (1900-2022)

Source: Authors.

This population is formed by the different age groups from zero to one hundred years distributed as follows.

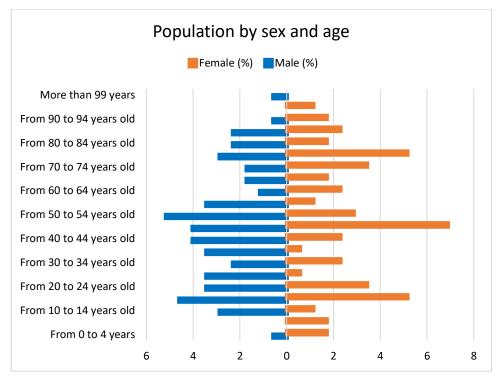


Figure 2: Population pyramid

Source: Authors.

#### 4.2. Education

As for education, the CEIP of Vilar de Canes is a classroom where you can study Early Childhood Education Second Cycle and Primary Education. It belongs to the CRA l'Aiguaneu, along with the neighboring villages of Catí, Culla and La Torre d'en Bessora. It does not have a bus route that can move people from the farmhouses to school, so schoolchildren move to Albocàsser, which does offer a bus line along with a school canteen service. Note that in the 2022-2023 academic year, the dining service has been achieved in Vilar de Canes.

There is no secondary school, so through a bus line together with the other towns of the CRA they go to the IES Pere-Enric Barreda Edo (Benassal), where classes of ESO, Bachillerato and a medium level training cycle are<sup>9</sup> taught. There is a subsidized school canteen service for ESO students.

<sup>&</sup>lt;sup>9</sup> Two types of baccalaureate: science and technology, and humanities and social sciences (LOMLOE Plan). The cycle of Use and conservation of the natural environment (Plan LOE). If you want to study something different you have to go to another location.

The closest university centre is precisely the Universitat Jaume I in Castelló de la Plana.

#### 4.3. Health

It has an auxiliary office: doctor and ATS from Monday to Friday from 9:00 a.m. to 11:00 a.m. The health center to which it corresponds is located at 10 km in Albocasser, which has an ambulance.

The hospital to which the natives correspond is the General University Hospital of Castelló de la Plana.

The pharmacy that corresponds to us is that of Vilar de Canes, which is located in the center of town, but because it has a very reduced schedule and a minimum service, it delegates to the pharmacy of Albocàsser.

		Primary Care Office	<b>√</b>
		Health Center	t<15 min
	Health	Hospital	t>45 min
	Hounn	Optical centers	t<45 min
		Pharmacy	✓
		Dental clinic	t<15 min
Services		Infant and Primary Education	✓
OCI VIOCS	Education	Secondary Education	t<15 min
		High school	t<15 min
		University	t>45 min
		Post Office	t<15 min
		Bank branches	t<15 min
	Other	ATM	✓
		Internet coverage	✓

Table 2: Summary of services

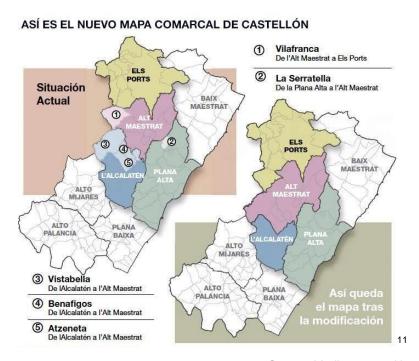
Source: Authors.

#### 5. Local labour market of l'Alt Maestrat

Looking at the maps of Salom-Carrasco et al. (1997) we can see that with a threshold of 50%, the MLT that is closest to l'Alt Maestrat is that of Vilafamés. While with 75% we find one within the region: Benasssal, which includes the Torre d'en Bessora. While the other two municipalities of l'Alt Maestrat such as Benafigos and Atzeneta del Maestrat are within the MLT of l'Alcora. On the other hand, if we look at the 90% threshold, we see that all the municipalities of Alt Maestrat belong to the Vilafranca del Cid area, except

Benafigos and Atzeneta del Maestrat which belong to the Millars and Vistabella area which is independent.<sup>10</sup>

This is because self-sufficiency in this territory is very high, since the majority of the population residing in our region works in their village.



Map 3: Variation of counties

Source: Mediterranean Newspaper

It is therefore, according to the objective of this final degree project, we are going to focus on the territory of l'Alt Maestrat, where we find the Territorial Pact for the Alt Maestrat Occupation to which Vilar de Canes belongs.

<sup>&</sup>lt;sup>10</sup> Other reasons to delimit the pact of l'Alt Maestrat, is the delimitation of the areas of sociosanitary department. See appendix I.

<sup>&</sup>lt;sup>11</sup> It should be noted that the data consulted on the maps are from 1991, while the county map studied is from 2023, already taking into account the regional modification that was established at the beginning of that same year as we can see in map 3.

This modification responds to the requests of these municipalities to belong to the region with which they were really linked historically. Vilafranca del Cid becomes dels Ports, while Vistabella del Maestrat, Benafigos, Atzeneta del Maestrat and Sarratella, cease to be the first three of l'Alcalatén, while the last of the Plana Alta.

As will be explained in the next section, the region of l'Alt Maestrat is mainly characterized by being an inland region, with an aging population and depopulation problems, to which is added a weak economic dynamism and problems of accessibility and availability of basic services.

In this context, rural areas have very specific characteristics in terms of market size, because having a smaller size, internal competition is lower, but against, external competition is increasingly stronger. As a result of this smaller size, economic dynamism is also lower, which greatly limits access to both suppliers and skilled labor, consequently having immediate effects on production rates, which in turn reduces the attractiveness to seek opportunities.

They stand out for the predominance of microenterprises, which resist time and depopulation. But it is also true that this causes a lack of investment in R+D or innovation programs. According to Alamá-Sabater and Budí-Orduña (2022) "In relation to the resilience of the company in rural spaces, the importance shown by the emotional component in the figure of local entrepreneurs in rural spaces is pointed out. Elements such as the feeling of belonging to the territory explain, often above references to business profitability, the fact of prioritizing the location of their companies in these territories despite being less competitive environments." (p.4)

Along with this, the narrowness of the labor market is also highlighted, this situation has three resulting effects that are the decrease in available job opportunities, lower labor mobility and a reduced or even zero demand for qualified workers, which has a fatal impact on socioeconomic areas, affecting both social and productive fabrics, And we also see how the great difficulty of fruiting a professional career over time, which causes young people to leave rural areas.

For the expansion of the labor market according to Alamá-Sabater and Budí-Orduña (2022), two places must be addressed, on the one hand, at the level of localities, leaving aside individuality and carrying out projects at the level of the region or through supramunicipal figures such as the associations or through entities such as LABORA that put into operation pacts for employment in these areas, That is to say that a municipality cannot go by itself without having to be talking about integrated rural areas.

On a positive note, after the pandemic many people have begun to value rural territory more, as it is a place that, apart from having great business and labor resilience, and where we also find specific implicit knowledge that helps productive specialization,

especially in sectors such as primary or those related to food. And after COVID-19, the potential of these territories for teleworking has been revealed, following Alamá-Sabater and Budí-Orduña (2022) have increased, although to a small extent the number of inhabitants of villages in rural areas.

The same thing that has been commented previously at the level of the Spanish state, can be extrapolated to the Valencian Community, since the large industrial cities are located on the coast while the interior is fading.

And on the other hand through online commerce, to find a larger consumer market.

After making this introduction we will go on to study the specific case of the region of l'Alt Maestrat and more specifically, the municipality of Vilar de Canes.

#### 5.1. Vilar de Canes

#### 5.1.1. Commercial area

In Vilar de Canes, there is a grocery store, where you can buy food and hygiene products.

As for the commercial area of Alt Maestrat, it is quite varied and consists mainly of small shops and local shops that offer products and services for the population. Some of the most common business sectors in the Alt Maestrat include:

- Agricultural and livestock products: There are shops and markets that offer fresh and local products such as fruits, vegetables, sausages and dairy products.
- Local crafts: There is a deep-rooted craft tradition, with shops offering handmade products such as ceramics, fabrics and leather objects.
- Rural tourism: L'Alt Maestrat is known for its rural tourism offer, with rural accommodation, restaurants...
- General trade: There are a variety of shops and establishments that offer products and services for daily use such as supermarkets, clothing stores, appliances, hardware stores and pharmacies.

It is important to note that Alt Maestrat is a rural region, so the commercial offer may be more limited compared to urban areas. However, local businesses often offer quality products with a focus on the local and traditional, which can be interesting for visitors looking for authentic experiences and local products.

The largest nearby commercial areas would be:

- Castellón de la Plana, where there is a wide variety of shops and shopping centers
  that offer food, fashion, accessories, hospitality, services and shops specializing in
  sports, toys and video games. The Central Market stands out, where you can find
  fresh products from the area.
- Vinaròs, there are also large stores and a variety of shops offering services, food products, fashion, hospitality, electronics and household items.

#### 5.1.2. Business fabric

#### Local companies 12

As for the <u>business fabric</u> as of February 2023, we see that there are a total of five companies, two of which are dedicated to agriculture and livestock (CNAE01), and the other three to the construction of buildings (CNAE41), food and beverage services (CNAE56) and Public Administration (CNAE84), respectively.

CNAE code	Description	GENERAL	AGRARIAN	TOTAL
01	Agriculture and livestock	0	2	2
41	Construction of buildings	1	0	1
56	Food & Beverage Services	1	0	1
84	Public administration	1	0	1
	TOTAL	3	2	5

Table 3: Companies by sector

Source: Authors.

As far as <u>employed workers</u> affiliated to social security are concerned, we see that there are a total of forty or more. The majority group is dedicated to agriculture and livestock (CNAE01), the second to the construction of buildings (CNAE41), while all other sectors: Wood industry (CNAE16), specialized construction activities (CNAE43), retail trade (CNAE47), accommodation service (CNAE55), food and beverage services (CNAE56) and Public Administration (CNAE84) are engaged in less than five people.

<sup>&</sup>lt;sup>12</sup> Data obtained from PRMU 0223

CNAE code	Description	EMP-TRA	GENERAL	НОМЕ	CHARCOAL	TOTAL
01	Agriculture and livestock	0	<5	31	>=32	>=32
16	Wood industry	0	0	<5	>=1	>=1
41	Construction of buildings	<5	0	<5	>=2	>=2
43	Act. of construction esp.	0	0	<5	>=1	>=1
47	Retail trade	0	0	<5	>=1	>=1
55	Accommodation services	0	0	<5	>=1	>=1
56	Food & Beverage Services	<5	0	0	>=1	>=1
84	Public administration	<5	0	0	>=1	>=1
	TOTAL	>=3	>=1	>=36	>=40	>=40

Table 4: Employees by sector

Source: Authors.

#### Non-local business areas

The business centres closest to Vilar de Canes are located in the neighbouring regions of Plana Alta (Serra d'en Galceràn, Vall d'Alba, Cabanes, Vilafamés, La Pobla Tornesa, Oropesa, Benicàssim, Castelló de la Plana); dels Ports (Vilafranca, Morella); of l'Alcalatén (Llucena, Figueroles, l'Alcora, Sant Joan de Moró); of the Baix Maestrat (Rosell, Sant Rafel del Riu, Sant Mateu, Vinaròs, Benicarló, Peníscola, Alcalà de Xivert).

In these points is where more job offer can be found with regard to the different industries, most of these are dedicated, as in the rest of the province, to the ceramic sector, highlighting the parks of the regions of Plana Alta and l'Alcalatén, which are half an hour and an hour respectively from Vilar de Canes.

# 6. Comparison of Vilar de Canes with the municipalities that form the pact of l'Alt Maestrat

#### 6.1. Income flows in the municipalities of Alt Maestrat

Table 5 summarizes the income data of the municipalities that form the pact of l'Alt Maestrat. We see in the first quadrant how this is distributed among the entire population, while in the second we observe the contribution of each source of income or item to the total income as a hundred.

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<sup>13</sup> Map of business parks (https://www.ivace.es/visor\_pol/)

		INCOMES									
			Distribution	on			Sources of income (%/total)				
	Average gross per person	Average net per person	Average net per household	P80/20	Gini Index	Gini Index (%)	Wage	Pension	Other income	Other benefits	Unemployment benefits
											,
Albocàsser	12.619 €	11.038 €	26.500 €	2,2	0,261	26,10%	51,30%	26,90%	17%	3,20%	1,60%
Benassal	12.948 €	11.202 €	26.662 €	2,4	0,268	26,80%	52,70%	27,10%	15%	3,50%	1,80%
Catí	13.840 €	12.020 €	29.045 €	2,2	0,278	27,80%	44,60%	28,90%	21,30%	4,50%	0,80%
Culla	12.768 €	11.374 €	23.586 €	2,0	0,252	25,20%	40,60%	37,70%	16,60%	4,10%	1%
la Serratella											
Tírig	12.216 €	10.824 €	23.107 €	2,0	0,259	25,90%	42,30%	33,30%	17%	6,30%	1,60%
la Torre d'en Bessora	13.805 €	11.980 €	28.996 €	2,4	0,258	25,80%	44,80%	33,30%	13,70%	7,60%	0,50%
Vilar de Canes	10.022 €	9.185 €	22.176 €	1,8	0,235	23,50%	27,50%	30,40%	35,00%	5,50%	2%
Average	12.603 €	11.089 €	25.725 €	2,1429	0,2587	0,2587143	43,40%	31,09%	19,31%	4,96%	1,26%

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Table 5: Distribution and flows of income Alt Mestrat

Source: Authors.

#### Distribution

Income distribution refers to how income is distributed among the members of a society or country. It can be influenced by various factors, such as economic structure, fiscal policy, education, access to resources and opportunities, among others. A more equal distribution of income can have benefits for society, such as greater economic and social stability, improved health and well-being, and greater social cohesion.

#### Total income

- The average gross income per person is 12.603€, with Catí being the wealthiest with 13.840€ and Vilar de Canes the least with 10.022€.
- The net income per person, on average is 11.089€, being Catí the wealthiest with 12.020€ and Vilar de Canes the least with 9.185€
- The average net income per household is 25.725, with Catí being the wealthiest with 29.045€ and Vilar de Canes the least with 22.176€

We observe that obviously all the measures are coherent, since they give us the same conclusions, since they are data that tell us the same thing, but from different points of view.

#### *Income distribution indicators*

The distribution in the 80/20 percentiles on average is 2,14, with Catí and Torre d'en Bessora being the highest with 2,4 and Vilar de Canes the lowest with 1,8.

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Data obtained from https://public.tableau.com/views/SistemaIntegradodeDatosMunicipales/B3\_Econmico?%3Alang uage=es-ES&%3Adisplay\_count=n&%3Aorigin=viz\_share\_link%3F%3AshowVizHome

• The Gini index<sup>15</sup> on average is 0,2587, with Catí being the highest with 0,278 and Vilar de Canes the lowest with 0,235.

We see that these last two measures are also coherent, since they explain equity in the distribution of income. As we can see, the higher the measure of the 80/20th percentile, the lower the Gini index, that is, they are interpreted inversely, but they give us the same conclusions. The lower the Gini index, the more equitable the distribution.

#### Sources of income

A source of income is where an individual's income, a company's profits, or a country's flows come from.

There are many sources of income depending on what we are talking about, but in this case we are going to focus on the following:

- The salary: It is the remuneration that the worker receives for his work.
   It contributes to income, compared to the other municipalities, to a greater extent in Benassal, while the lowest contribution is made in Vilar de Canes.
- Pensions: These are the salaries that people receive when they stop working.
   They contribute to income, compared to the other municipalities, to a greater extent in Culla, while the lowest contribution is made in Albocàsser.
- Other income: They are other sources of income that are neither salaries nor pensions nor unemployment benefits, within this item we can find pensions for widowhood, income from leases and rentals, inheritances, income from investments...
  - They contribute to income, compared to the other municipalities, to a greater extent in Vilar de Canes, while the lowest contribution is made in Benassal.
- Unemployment benefits: These are subsidies that are paid to people who are unemployed.

They contribute to the income, compared to the other municipalities, to a greater extent in Vilar de Canes, while the lowest contribution is made in La Torre d'en Bessora.

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<sup>&</sup>lt;sup>15</sup> Gini index: measure of inequality used to assess the distribution of income or wealth in a population. It varies between 0 and 1, where 0 represents a perfectly equal distribution and 1 represents an unequal distribution. It is important to note that the Gini index used as a statistical parameter in this study was calculated from a very small sample of data.

#### 6.2. Income streams in Vilar de Canes

		INCOMES								
			Distribution			Sources of income (%/total)				
	Average gross per person	Average net per person	Average net per household	P80/20 distribution	Gini Index	Wage	Pension	Other income	Other benefits	Unemployme nt benefits
Vilar de Canes	10.022 €	9.185 €	22.176 €	1,8	0,235	27,50%	30,40%	35,00%	5,50%	2%
Media pacto	12.603 €	11.089 €	25.725 €	2,1429	0,2587	43,40%	31,09%	19,31%	4,96%	1,26%
Difference from the pact	- 2.581 €	- 1.904€	- 3.549 €	-0,3429	-0,0237	-15,90%	-0,69%	15,69%	0,54%	0,24%
Provincial average	14.308 €	11.744 €	27.133 €	2,46	0,295	52,42%	28,31%	15,49%	5,11%	2,13%
Difference with the province	- 4.286 €	- 2.559€	- 4.957€	-0,6600	-0,0598	-24,92%	2,10%	19,51%	0,39%	-0,63%

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Table 6: Distribution and flows of income Vilar de Canes

Source: Authors.

#### Distribution

#### Total income

- The average gross income per person in Vilar de Canes is 10.022€, a significantly lower figure compared to the 12.603€ average of the members of the pact, being a considerable gap of 2.581€, and with a difference at the provincial level of 4.286€ lower.
- The average net income per person in Vilar de Canes is 9.185€, a lower figure compared to the 11.089€ average of the members of the pact, being the difference of 1.904€, and with a difference at the provincial level of 2.559€ lower.
- The average net income per household in Vilar de Canes is 22.176€, being 3.549€ lower than the average of the members of the pact of 25.725€, and with a difference at the provincial level of 4.957€ lower.

#### *Income distribution indicators:*

• The distribution in the 80/20 percentiles in Vilar de canes is 1,8, being below the average of the members of the pact at 0,3429, and 0,6600 below the average of the province of Castellón.

Data obtained from https://public.tableau.com/views/SistemaIntegradodeDatosMunicipales/B3\_Econmico?%3Alang uage=es-ES&%3Adisplay\_count=n&%3Aorigin=viz\_share\_link%3F%3AshowVizHome

<sup>&</sup>lt;sup>16</sup> The provincial average has been taken taking into account the ten municipalities with the highest income and the ten with the lowest.

The index of Gini Vilar of dogs is 0,235, being below the average of the members
of the pact at 0,0237, and at 0,0598 below the average of the province of
Castellón.

This means that the distribution of income in Vilar de Canes is more equitable than the average of municipalities that form the pact, and of the province of Castellón. Obviously these two measures have to give us the same conclusions, since they measure the same thing although each of them in a different way.

#### Sources of income

As for the sources of income of the inhabitants of each town, it should be noted that the largest source of income of Vilar de Canes is the item other income with a weight of 35%, 15,69% more than the average of the other municipalities and 19,51% more if we look at the provincial average.

On the other hand, we see how in Vilar de Canes the salary item is in third position with a weight of 27,5%, 15,9% less than on average with the other municipalities of the pact, while if we look at the provincial average it is 24,92% lower. We observe how between Vilar de Canes and the rest of the municipalities of the pact and also the province, these items are exchanged positions, this may be due to the fact that the ratio of self-employed with respect to the number of companies there is greater than in the other municipalities and what happens more frequently is that workers settle as close to their job, So in municipalities with a greater business fabric there will be more salaried people.

As already mentioned above<sup>17</sup>, the municipality the number of SMEs<sup>18</sup> that we find is five, a significant number if we consider the size of the municipality, it should also be noted that the number of self-employed who are registered in social security is high as we see in the following table.

		SS AFFILIATES				
	Total		Total By sector			
	Absolute	For 1.000 hab.	Special Regime (R.E)T. Self- employed	R.G-S. Agrarian	General Regime (R.G)	R.G S.E.Home
Vilar de Canes	42	385,30	83,30%	16,70%	0,00%	0,00%
Average pact	250	733	43,55%	4,15%	51,16%	1,15%

Table 7: SS contributions Source: Authors.

<sup>18</sup> Small and medium-sized enterprises

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<sup>&</sup>lt;sup>17</sup> See Table 3 and Table 4

As we said, we see that in Vilar de Canes 83,3% of affiliates to social security do so as self-employed, while the average of members of the pact makes them only 43,55%, hence it can be explained that the percentage of income of the salary item is lower than that of the average in the municipality.

A constant in all municipalities and also at the provincial level, is that the second source of income is the *pensions* item, being in Vilar de Canes 30,4%, only 0,69% below the average of members of the pact, while it is 2,10% higher than the average of the province. It is a very noteworthy fact but that does not surprise us due to the aging of the population, if we compare with the rest of the province we can say that through this indicator the population that receives pensions is greater in Vilar de Canes and the rest of the municipalities of the pact, so we can conclude that the population is older compared to the provincial average.

Also the items other benefits and unemployment benefits occupy the fourth and fifth place respectively in all municipalities, being in Vilar de Canes 5,5%, half a percentage point higher than the average of municipalities of the pact and 0,39% higher than the provincial average, in the first, while the second has a weight of 2%, being 0,24% higher than the average, but 0,63% lower than the provincial average.

#### PART II: ACTION PLAN

# 7. Generic and long-term objectives

From the above, the main characteristics of Vilar de Canes and l'Alt Maestrat are rural areas with a high level of depopulation in addition to a very limited range of job opportunities, but which in turn offer potential in terms of quality of life. For this reason, the main objective of this measure is to alleviate the serious problem caused by depopulation and to be able to reactivate, both socially and economically, the municipalities affected by this great burden, preventing them from disappearing in the end.

Attending both in the short, medium and long term, it is intended to create improvements, both for the people who already reside in these municipalities and to encourage young people to want to stay and / or new residents to come. These improvements come as a loop, since the more people there are, the more profitable all businesses will be, and the more businesses, the more job opportunities, which attracts more people.

This also seeks to position this territory on the map and let people know that it exists and that it can be a very good opportunity to change lifestyle.

In the long term we hope that in the vegetative growth of the municipality this negative trend will lose, or at least that it will lose intensity. And that the population density is equal to or greater than 12,5 inhabitants / km $2^{19}$ 

Vilar de Canes								
Year	Population	Area (km2)	Population density (hab/km2)					
2022	170	15,94	10,66					
2042	199,25	15,94	12,5					

Table 8: Vilar de Canes population density

Source: Authors.

In the table we see how taking the year 2022 as a reference, the population density is approximately 10,7 hab/km<sup>2</sup>, we establish our goal 20 years ahead, which indicates that the approximate population that the town would have to reach to meet this parameter is approximately 200 hab/km<sup>2</sup>.

Diffe	Growth	
Years	Inhabitants	(hab/year)
20	29,25	1,4625

Table 9: Annual growth Vilar de Canes

Source: Authors.

#### 8. SWOT analysis

The SWOT matrix<sup>20</sup> is a widely recognized strategic tool for analyzing the situation of a company. Its main objective is to provide a clear diagnosis that allows appropriate strategic decisions to be made and improve in the future. Through this matrix, the opportunities and threats of the environment in which the organization operates are identified, as well as internal strengths and weaknesses. This helps understand the big picture and take action to capitalize on opportunities, mitigate threats, leverage strengths, and address weaknesses. In summary, the SWOT matrix is a valuable tool that provides a global vision of the situation of the territory and guides strategic decisions. (Espinosa, 2019)

<sup>&</sup>lt;sup>19</sup> EU recommendation threshold to consider a municipality at risk of depopulation. (See also <u>The</u> demographic challenge and the population in Spain)

<sup>&</sup>lt;sup>20</sup> Acronym for Weaknesses, Threats, Strengths and Opportunities

This land for its location stands out for having a contact with nature of almost one hundred percent, it is also not far from tourist attractions, because nearby are some of the most beautiful municipalities in Spain such as Peníscola, Morella or Vilafamés.

Following Alamá-Sabater and Budí-Orduña (2022); Collantes and Pinilla, (2019); Banco de España, (2021) depopulation in Spain is a phenomenon that began in the fifties, with Spanish industrialization, a revolution, which although late, came to this country and caused migration to urban areas from rural areas, largely due to the excess of labor produced by an increase in agricultural mechanization. This caused the concentration of workers in industrial areas located in large cities.

Well, the same thing happens in l'Alt Maestrat, to the sum of the little commercial digitalization that makes the territory lose efficiency in the exploitation of all its resources, but it does highlight the interest in improving this aspect, as Guillén-Castán (2023) says. Apart from that, in recent years we have seen how they want to implement large parks of solar panels, windmills... in these regions and neighboring regions, renewable energies are an alternative source to fossil energies of all life but they are ruled without any consensus where they want to plant them or not, following Aguilar (2022) we see that where they want to build these areas is on land that is dedicated to agricultural cultivation and, Although the price of land rises, the option of working on them is lost. Well, we know that there are jobs in the agricultural and livestock sector, which are the ones that predominate and that would be affected by the energy problem, adding the structuring of the territory with the MAT and the<sup>21</sup> construction projects of more than 20 wind farms. (Olivares, 2022)

On the other hand, we are relatively close to municipalities that do have a larger industrial network, in addition, after COVID-19, new work modalities such as teleworking have been encouraged, and this is something that can be done anywhere as long as we have an internet connection. Well, following Silva-Porto (2022) we see that there are different modalities of teleworking and one of them is nomadic teleworking, since workers do not have a fixed place of work and change location, this also helps to increase tourism and mobility of people.

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<sup>&</sup>lt;sup>21</sup> Very high voltage power line that goes from La Plana to Morella, affecting the entire territory between them.

Strengths	Weaknesses
<ul> <li>Breadth of natural resources.</li> <li>Tranquility and quality of life.</li> <li>Strategic location, close to tourist attractions.</li> <li>Business resilience</li> <li>Predisposition to increase digitization.</li> </ul>	<ul> <li>Little labor dynamization</li> <li>Little commercial digitalization</li> <li>Flight of people with higher education</li> <li>Lack of business investment.</li> </ul>
Opportunities	Threats
<ul> <li>There are jobs</li> <li>It is close to municipalities with more business network.</li> <li>New working methods.</li> <li>Scope for technological evolution</li> </ul>	<ul> <li>Invasion of renewable energies forcibly.</li> <li>High risk of depopulation (population density threshold lower than recommended: 10.7&lt;12.5).</li> <li>Low business profitability.</li> </ul>

Table 10: SWOT Analysis

Source: Authors.

# 9. Strategic plan proposal (project)

A strategic plan must be established that seeks to achieve the previously mentioned objectives based on the SWOT analysis carried out previously, and define the project and the guidelines that it must follow through a schedule, and stipulating control indicators to monitor its good practice.

It should be noted that this proposal is part of a package of ideas proposed for application in this territory and that it follows the line of the other ideas proposed through the previously mentioned Territorial Pact for the Alt Maestrat Occupation.

The situation of the members of the Covenant has been taken into consideration. We see that the strategic lines to follow are several and very diverse, we are going to focus with the strategic objective following Arnaz-Serrano and Esteller-Casanova (2020) that takes into account innovation with new technologies and areas of employment, more specifically in the teleworking section.

To try to achieve these objectives, the creation of a coworking teleworking area has been thought, where everyone who wants to telework in the municipality and the area of the pact can do so from Vilar de Canes. It should be clarified that this idea arises from my

point of view with the academic training I have so far and belonging to an age group of young people and also with higher education, which means that I may not have the same perspectives as other people with different abilities.

This measure is intended to create greater labor dynamism, since after the COVID-19 pandemic many companies in many sectors have offered this new way of working. So to be able to create a space in this region where people, both residents in neighboring municipalities can have an alternative to the jobs in the area and try to get young people to stay in the villages and also prevent people with more studies can progress within their scope without moving from the territory. In addition, it can be an incentive for people from other parts to come to know the area while working, as this would be an increase in benefit in the economy of the area.

It can also have positive consequences, if someone who comes to telework and know the area likes it, they may try to stay in it. It is true that most people who telework in a nomadic way, are young people or without burdens, which are potentially people who could build a life in the region.

The expected results of this project together with the one being carried out with the Marketplace<sup>22</sup> is that in the first place investment in new technologies (ICT) is increased and that in the area of the pact jobs related to these are increased. In addition, with the creation of this coworking space it is expected that the population of the region will stay in it, so we expect that the vegetative growth will decrease to a lesser amount with regard to the last periods studied and that they contribute to alleviate depopulation.

To carry out this project we need a building with about 73 m<sup>2</sup> usable to create a work area for 7 people.

In these 73 m<sup>2</sup> we will have 7 desks that will be positioned in front of frete, two small conference rooms (16m<sup>2</sup> each) and soundproofed, so that users can meet via telematics if necessary and a pantry mode room that will have a fridge and coffee maker.<sup>23</sup>

This space must have a good luminosity, so large windows will be needed, in addition to artificial light, we will also need 9 desks and 9 ergonomic chairs, which provide the

<sup>23</sup> Taking data from <a href="https://skepp.com/es/blog/consejos/cantidad-de-metros-cuadrados-por-persona-que-necesitas-para-la-oficina">https://skepp.com/es/blog/consejos/cantidad-de-metros-cuadrados-por-persona-que-necesitas-para-la-oficina</a>

<sup>&</sup>lt;sup>22</sup> Project endorsed by EMPACE and LABORA, which consists of creating a digital market for the commercialization of products from the area.

necessary comfort that is needed for the good performance of the work. A shelf so that everyone has their space to store things. Two computer screens will also be provided for each individual that can be connected to a personal computer either in the form of a tower or a laptop so it is essential to have access to a good internet connection, both by cable and via wifi.

The main way to make it known would be through digital platforms through specific websites and social networks. It would also join campaigns that promote the different towns as one more activity that can be carried out in this territory in addition to trying to collaborate through the different lodgings that are in the region, to offer housing and the position to work, thus leaving space also for the freedom of those who want to come to spend only one season in our territory.

#### 9.1. Schedule

The construction of this project will begin by 2024, and will last about six months, so we hope that, in June 2024, it will be ready to open its doors.

It will be located in the building known as l'Ajuntament Vell<sup>24</sup>, which is located in the center of the municipality and is owned by the City Council, the body that will make this investment.

For the construction of this project, a budget of about 40.000€ has been estimated, to which we will then have to add the fixed expenses both monthly and annual<sup>25</sup> to be able to set a rental price for the space.

In order to make the space profitable, a rent of between 150€ and 200€ will be established, because the final objective is not to obtain economic profitability in itself with the creation of this space, but to be a place where there is an option to be able to work for anyone who wants to come to our territory or who wants to stay in it.

https://www1.sedecatastro.gob.es/cycbieninmueble/OVCConCiud.aspx?UrbRus=U&RefC=9218
612YK4791N0001YU&RCCompleta=&via=DALT@DE&tipoVia=CL&numero=4&kilometro=&blo
que=&escalera=&planta=&puerta=&DescProv=CASTELLON&prov=12&muni=134&DescMuni=
VILAR@DE@CANES&TipUR=U&codvia=2&comVia=DALT%20DE%20(STREET)&pest=urban
a&from=OVCBusqueda&del=12&mun=134

\_

See cadastral reference:

<sup>&</sup>lt;sup>25</sup> See annex II.

#### 9.2. Control indicators

The first control indicator that we are going to use is going to be the supervision of the construction of the project, that is, if this project is carried out or not.

The second control indicator is the occupation that these areas have, establishing an occupancy point of at least 70% to consider that the project is being successful.

In a term of three years the vegetative growth of the municipality will be studied to see if it has the expected effect that has been indicated above.

We will also consider a ratio between the increase in the number of rentals and the occupation of the coworking area.

In this way we can ensure if the project has the expected effects and meets the previously established objectives.

#### 10. Conclusion

As this paper has shown, the delimitation of local labour markets is a very difficult task, as many considerations and variables can be taken into account. We have seen that there are different methods for delimiting them, from the more traditional method in which self-sufficiency thresholds are stipulated to delimit the areas in which the data used are population censuses together with the labour supply and the active population for each municipality (Salom-Carrasco et al., 1997) to a method that uses the latest technology through an experimental project of the INE that consists of collecting data through mobile telephony to find out the inflows and outflows of populations and thus locate workers (Belmonte et al., 2022).

But not only are there different methods of delimitation, but they are often delimited by necessity, agreement or convenience. An example would be the delimitation of health areas or the implementation of employment policies. This last case is the one we have focused on, as we have based ourselves on the Alt Maestras Employment Pact to study this LLM and the municipality of Vilar de Canes in depth. After studying this territory, we have seen that there is a high risk of depopulation, as the optimum threshold is almost 2 points higher. In addition, we have seen that this is a territory with a very aged population, which is reflected not only in the population pyramid, but also in the fact that the second source of income is pensions, with a contribution of 30,4% of the total.

We have seen that most of the people who pay social security contributions do so as self-employed, as 83,3% do so, so it can be considered that due to this, together with the low contribution in relation to the other members of the pact (-15,9%), the item wages to the total contributions, we can conclude that it is not a municipality with a lot of industry. With all these data, the aim is to propose an alternative to work in this region, and try to improve the results. A coworking area has been proposed as the main idea of the project, which has to meet certain objectives, among which is that each year the population would have to increase by two inhabitants, in order to ensure the persistence of the municipality and that it would leave the area designated as at risk of depopulation by the EU in about 20 years.

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# 12. Annexes

# ANNEX I

	Distances from Vilar de Canes to		
	Time	Distance	Route
Catí	19 min	19 km	We go along the CV-168, until we reach the CV-15 and then take the CV-128.
Tírig	24 min	20 km	We go along the CV-165, until we reach the CV-15, then we take the CV-129 and finally the CV-130.
Albocàsser	10 min	10 km	We go along the CV-165, until we reach the CV-15 and finally the CV-129.
La Torre d'en Bessora	7 min	5 km	We follow the CV-165
Atzeneta del Maestrat	20 min	21 km	We go along the CV-165 until we reach the CV-170.
Culla	23 min	17 km	We go along the CV-165 until we reach the CV-163, then we join the CV-166
Castelló de la Plana	52 min	59 km	We go along the CV-165 until we reach the CV-15, we continue until we join the CV-10 / Autovía de la Plana, then we take the CV-151.
Vinaròs	46 min	63 km	We go along the CV-168, until we reach the CV-15, then take the CV-128 then turn right when we reach the N-232.
Morella	41 min	49 km	We go along the CV-168, until we reach the CV-15, then take the CV-128 then turn left when we reach the N-232.

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Table 11: Routes between villages

Source: Authors.

Roads				
Name	Route	Longitude		
CV-168	Road that goes from La Pobla Tornesa to Vilafranca and links with Teruel and La Iglesuela del Cid	3 km		
CV-15	Road that goes from La Pobla Tornesa to Vilafranca and links with Teruel and La Iglesuela del Cid	73 km		
CV-128	It connects the CV-15 at the height of the Segarró (Albocàsser) with the N-232 at the Venta del aire (Catí)			
CV-129	Road from the Caves of Vinromà to Albocàsser and the CV-15	16,8 km		
CV-130	Road from Albocàsser and CV-15 to Sant Mateu	23 km		
CV-165	Road from the Hoya to Vilar de Cannes	45 km		
CV-170	Road that goes from La Pelejana to Vistabella	48,7 km		
CV-163	Road that goes from the CV-15 at Sant Pau (Albocàrrer) to La Torre d'en Bessora	7 km		
CV-166	Road that joins the CV-15 at Albocàsser and the CV-15 at Benassal to the south	33 km		
CV-10	Autovía de la Plana, joins the A-7, height of Vilavella with the N-232 in La Jana	82 km		
CV-151	Castelló-Borriol road, connects Castelló with the CV-10	2,1 km		
N-232	It goes from Vinaròs to Santander	561,5 km		

Table 12: Road Index

Source: Authors.

 $<sup>^{26}</sup>$  The shortest times and routes marked by the website have been taken into account CalcularRuta.com

#### **ANNEX II**

Initial disbursment					
	For	7 stalls	73	m	
Reform and conditioning of the premises		25.000 €			
Office and room furniture		5.100 €			
Tools and equipment		1.000 €			
Computer equipment		2.000 €			
HP VAT debtor for initial investments		6.951 €			
TOTAL		40.051 €			

Table 13: Initial outlay

Source: Authors.

Monthly expenditure			
Staff costs	265 €		
Rent	0€		
Supplies	700 €		
Administration fees	50 €		
Expenditure on advertising	300 €		
Maintenance	100 €		
TOTAL	1.415 €		

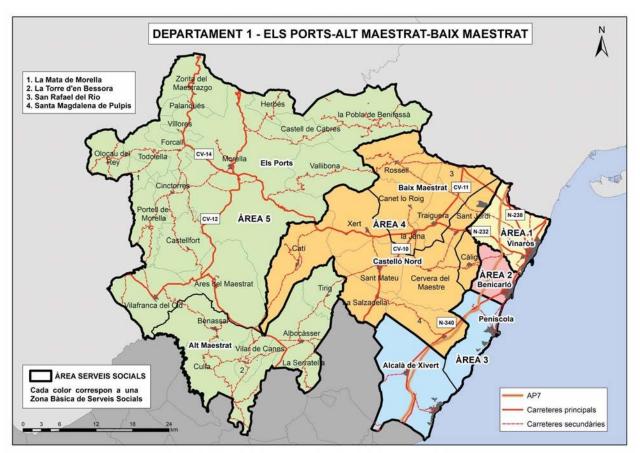
Table 14: Monthly expenses

Source: Authors.

<sup>&</sup>lt;sup>27</sup> Data from <a href="https://www.emprendedores.es/crear-una-empresa/plan-de-negocio-para-montar-">https://www.emprendedores.es/crear-una-empresa/plan-de-negocio-para-montar-</a> un-coworking/

# 13. Appendices

# Appendix I



Map 4: Health departments

Source: Generalitat Valenciana

	Department 1. Els Ports/Alt Maestrat/Baix Maestrat						
Area	Basic area	Municipalities					
1.1	<u>1.1.1 Vinaròs</u>	Vinaròs					
1.2	1.2.1 Benicarló	Benicarló					
4.0	1.3.1 Peníscola	Peníscola					
1.3	1.3.2 Alcalà de Xivert	Alcalà de Xivert					
		Càlig Traiguera					
	1.4.1 Baix Maestrat	Rosell					
	1.4.1 Daix Waestrat	La Jana					
		Canet lo Roig					
		Sant Rafael del Riu					
1.4		Sant Mateu					
		Sant Jordi					
		Santa Magdalena del Pulpis					
	1.4.2 Castelló Nord	Catí					
		La Salzadella					
		Xert					
		Cervera del Maestrat					
		Morella					
		Vilafranca del Cid					
		Forcall					
		Cinctorres					
		La Poblade Benifasà					
		Portell de morella					
		Ares del Maestat					
		Castellfort					
	1.5.1 Els Ports	La Mata de Morella					
		Todolella					
		Olocau del Rey					
1.5		Sorita del Maestrat					
1.5		Vallibona					
		Herbers					
		Villores					
		Palanques					
		Castell de Cabres					
		Albocàsser					
		Benassal					
		Culla					
	1.5.2 Alt Maestrat	Tírig					
		Vilar de Canes					
		La Torre d'en Bessora					
		La Sarratella					

Table 15: Health departments