

# Apartments Sales Prices & Venues Data Analysis of la Métropole Européenne de Lille (MEL)

## Capstone Project - The Battle of Neighborhoods

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# Introduction

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- Cluster Maps of la MEL

# Houses sales database

(42395, 40)

date_mutation	numero_disposition	nature_mutation	valeur_fonciere	adresse_numero	adresse_suffixe	adresse_nom_voie	adresse_code_voie	code_postal	co
2019-01-04	1	Vente	190500.0	1.0	NaN	ALL DU GENERAL KOENIG	0488	59130.0	
2019-01-04	1	Vente	190500.0	1.0	NaN	ALL DU GENERAL KOENIG	0488	59130.0	
2019-01-04	1	Vente	116000.0	26.0	NaN	AV DU MARECHAL DE LATTRE	0650	59350.0	
2019-01-04	1	Vente	116000.0	26.0	NaN	AV DU MARECHAL DE LATTRE	0650	59350.0	
2019-01-04	1	Vente	8000.0	14.0	NaN	AV DE LA ROSERAIE	7609	59000.0	

Figure: Houses sales in France in 2019 database.

# Municipalities of la MEL database I

(95, 6)

	Nom	Code Insee	Gentilé	Superficie (km2)	Population (dernière pop. légale)	Densité (hab./km2)
0	Lille(siège)	59350	Lillois	3483	232 787 (2017)	6 684
1	Allennes-les-Marais	59005	Allennois	555	3 460 (2017)	623
2	Annœullin	59011	Annœullinois	901	10 428 (2017)	1 157
3	Anstaing	59013	Anstinois	23	1 469 (2017)	639
4	Armentières	59017	Armentériois	628	24 882 (2017)	3 962

Figure: *Municipalities of la MEL.*

## Remarque

*This database is used to select transactions that concern the municipalities of Lille in the Houses sales in France in 2019 database.*

# Explore houses sales in la MEL I

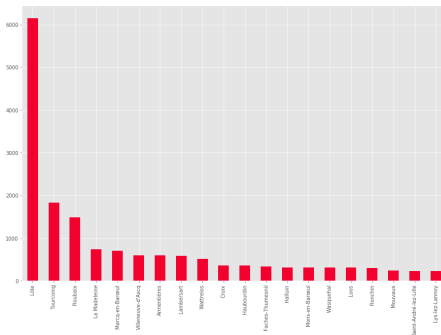


Figure: *Municipalities with the most transactions.*

Lille city is the municipality with the most transactions (6000), following by Tourcoing and Roubaix.



# Explore houses sales in la MEL II

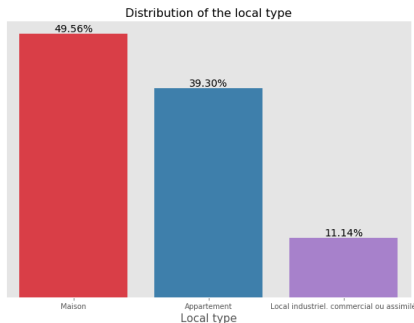


Figure: *Local type transaction rate.*

Half of transactions concerns Houses when 40% concerns apartments and only 11% for industrials premises.

# Explore houses sales in la MEL III

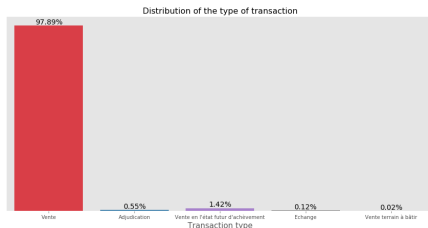


Figure: *Transaction type rate.*

98% of transaction are about *sale*. People are more interesting in buying house or apartment already built. No people are interesting in buying sale of building land.

# Cluster la MEL neighborhoods I

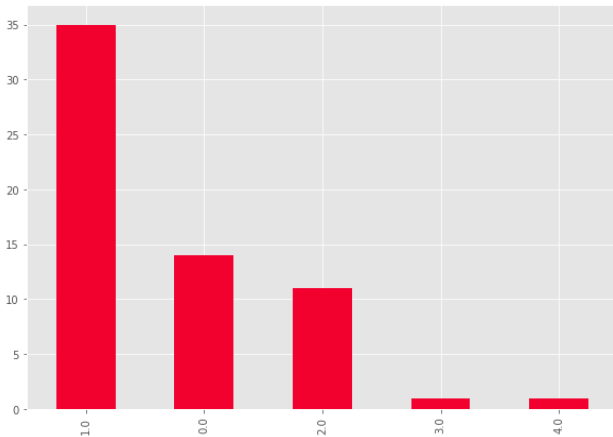


Figure: *Municipalities distribution in clusters.*

# Cluster la MEL neighborhoods II

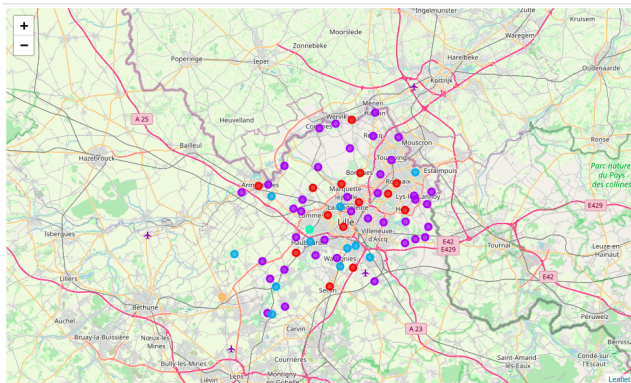


Figure: *Clusters Maps.*

# Examine clusters

	Venues	price	rooms	Comment
Cluster 0	French restaurant	3073	2.5	cheapest, venues
.	.	.	.	.
Cluster 1	Pizza place	2816	2.5	cheapest, venues
.	Supermarket	.	.	
.	Women's stores	.	.	
Cluster 2	Train station	3330	2.5	average price
.	.	.	.	
Cluster 3		3340	3	average price, no venues
.	.	.	.	
Cluster 4	.	3769	3	expensive, no more venues

# Conclusion

Taking into account the results of the study, Cluster 1 is more advantageous for someone looking to invest in real estate by buying apartments. Apartment prices are cheaper there, and there is enough venues for people to settle there. The municipalities of Clusters 0 also seem to adapt for this type of project. On the other hand, the municipalities of Clusters 3 and 4 are not suitable for rental property investment.