

# French grocery stores

(Very preliminary)

E. Chamayou\* L. Linnemer and T. Vergé  
CREST-LEI

November 7, 2014

## **Abstract:**

This note provides an overview of French grocery stores in 2014. All the analysis relies on data provided by LSA on hypermarkets, supermarkets, hard discount stores and "drive-through".

## **Keywords:**

**JEL Classification Numbers:** XXX

---

\*e-mail: *etienne.chamayou@ensae.fr*

## 1 Introduction

Data provided by LSA include 17,254 French grocery stores. LSA provide three columns regarding the activity of stores over time: an opening date, a closing date and a re-opening date. Stores can thus be considered closed when they have a closing date but no reopening date. According to LSA data, beginning 2014, there were 15,086 hypermarkets, supermarkets, hard discount and "drive-through" stores operating in France.

## 2 Overview of store population by type

Descriptive statistics on surface by type show that grocery stores with a surface between 400 and 2500  $m^2$  are categorized as supermarkets, while those with a surface exceeding 2500  $m^2$  are categorized as hypermarkets. The type "Magasins Populaires" is attributed to stores with a significant surface dedicated to non food products (most of them belong to the same retail chain as will be shown later).

Table 1: Overview of store population

	# Obs.	Avg	Std	Min	Q05	Q50	Q95	Max	Cum
<b>Surface in <math>m^2</math> by type of store</b>									
Hypermarkets	2,031	5,360	3,280	2,500	2,512	4,000	12,288	24,000	10,885,500
Supermarkets	5,771	1,286	620	400	406	1,200	2,346	2,499	7,422,118
Hard discount	4,477	772	228	100	318	770	1,171	2,000	3,455,127
All	12,279	1,772	2,141	100	400	990	6,000	24,000	21,762,745
<b>Number of employees by type of store</b>									
Hypermarkets	2,031	171	138	20	45	125	450	1,000	346,928
Supermarkets	5,771	29	20	1	6	26	65	200	165,983
Hard discount	4,477	10	7	2	5	9	20	151	44,267
All	12,279	45	81	1	5	17	200	1,000	557,178
<b>Number of checkouts by type</b>									
Hypermarkets	2,030	23	15	5	10	19	50	358	47,307
Supermarkets	5,771	7	3	1	3	6	12	27	39,332
Hard discount	4,476	4	2	1	2	4	8	42	19,495
All	12,277	9	9	1	2	6	26	358	106,134
<b>Size of parking by type of store</b>									
Hypermarkets	1,933	759	780	18	170	500	2,191	7,660	1,467,088
Supermarkets	4,323	135	108	2	30	120	300	2,577	585,731
Hard discount	1,509	87	69	3	29	73	200	1,200	131,833
All	7,765	281	485	2	30	140	1,100	7,660	2,184,652
<b>Number of gas pumps</b>									
Hypermarkets	1,786	8	3	1	4	7	14	26	13,956
Supermarkets	2,912	4	2	0	2	4	7	16	11,568
Hard discount	131	4	2	1	2	4	6	23	519
All	4,829	5	3	0	2	4	12	26	26,043
<b>Number of drives</b>									
Hypermarkets	1,138								
Supermarkets	805								
Hard discount	119								
All	2,062								

### 3 Overview of competition

Table 2: Competition at the municipality level

	count	mean	std	min	25%	50%	75%	max
Nb stores	36,247	0.32	1.33	0.00	0.00	0.00	0.00	55.00
Nb stores wgt by hh.	36,247	7.26	10.94	0.00	0.00	3.00	9.00	55.00
Surface	36,247	582	2,685	0	0	0	0.00	84,832
Surface wgt by hh.	36,247	12,095	17,303	0	0	4,458	16,699	84,832
Avail. surf.	36,247	29,959	53,301	1,027	11,514	18,317	30,181	800,164
Avail. surf. by hh.	36,245	268	660	0	39	106	259	26,891
HHI	36,247	0.19	0.04	0.10	0.16	0.19	0.21	0.48
CR1	36,247	0.30	0.07	0.14	0.25	0.29	0.33	0.67
CR2	36,247	0.51	0.08	0.28	0.45	0.51	0.56	0.87
CR3	36,247	0.66	0.08	0.41	0.61	0.66	0.72	0.95
Min dist	36,247	5.43	3.62	0.00	2.82	5.05	7.49	27.14
Min dist H	36,247	10.78	6.89	0.00	5.70	9.58	14.57	51.92
Min dist S	36,247	6.16	3.93	0.00	3.38	5.71	8.36	27.43
Min dist X	36,247	8.28	5.37	0.00	4.38	7.45	11.25	40.71

TODO: explain method for avail. surface. There are 81 stores with distance 0 to municipality center hence their location is likely wrong at this stage.

Table 3: Avail surface entropy decomposition by region

Region	$s_k$	$T_k(1)$
Ile-de-France	0.23	0.44
Rhone-Alpes	0.08	0.24
Nord-Pas-de-Calais	0.08	0.22
Picardie	0.06	0.15
Lorraine	0.06	0.21
Midi-Pyrenees	0.05	0.38
Aquitaine	0.04	0.27
Haute-Normandie	0.04	0.12
Pays de la Loire	0.03	0.14
Alsace	0.03	0.09
Franche-Comte	0.03	0.13
Basse-Normandie	0.03	0.15
Centre	0.03	0.16
Bourgogne	0.03	0.23
Languedoc-Roussillon	0.03	0.31
Bretagne	0.03	0.10
Champagne-Ardenne	0.03	0.24
Provence-Alpes-Cote-d'Azur	0.03	0.48
Poitou-Charentes	0.02	0.08
Auvergne	0.02	0.31
Limousin	0.01	0.23

National entropy is 0.59 of which 45% (0.27) is due to intra regional differences and 55% (0.32) due to differences between regions.

Table 4: Avail surface entropy decomposition by region and store type: T1s

	Available Surface				Surface			
	All	H	S	X	All	H	S	X
Ile-de-France	0.44	0.40	0.51	0.42	1.50	2.18	1.66	1.69
Champagne-Ardenne	0.24	0.32	0.18	0.20	3.47	4.14	3.48	3.76
Picardie	0.15	0.21	0.13	0.12	3.02	3.77	3.20	3.31
Haute-Normandie	0.12	0.16	0.10	0.11	2.71	3.50	2.85	2.91
Centre	0.16	0.23	0.12	0.17	2.50	3.39	2.49	2.99
Basse-Normandie	0.15	0.20	0.10	0.21	2.86	3.70	2.93	3.40
Bourgogne	0.23	0.32	0.18	0.21	3.08	4.10	2.82	3.43
Nord-Pas-de-Calais	0.22	0.26	0.18	0.22	2.09	3.15	2.10	2.11
Lorraine	0.21	0.25	0.19	0.20	2.84	3.55	3.05	2.83
Alsace	0.09	0.10	0.10	0.08	2.44	3.11	2.58	2.67
Franche-Comte	0.13	0.20	0.09	0.16	3.11	4.00	3.09	3.53
Pays de la Loire	0.14	0.16	0.11	0.13	2.29	2.76	2.39	2.73
Bretagne	0.10	0.14	0.08	0.09	1.87	2.54	1.94	2.51
Poitou-Charentes	0.08	0.12	0.08	0.08	2.72	3.42	2.68	3.31
Aquitaine	0.27	0.35	0.20	0.24	2.59	3.40	2.54	2.95
Midi-Pyrenees	0.38	0.51	0.26	0.43	3.05	3.96	3.02	3.59
Limousin	0.23	0.38	0.15	0.23	3.07	4.28	2.74	3.41
Rhone-Alpes	0.24	0.31	0.21	0.23	2.28	3.25	2.31	2.74
Auvergne	0.31	0.46	0.22	0.28	3.01	4.16	2.76	3.36
Languedoc-Roussillon	0.31	0.41	0.24	0.30	2.76	3.63	2.61	2.92
PACA	0.48	0.53	0.41	0.53	2.00	2.72	1.94	2.13
All	0.59	0.60	0.63	0.57	2.59	3.38	2.61	2.90
W/ Reg	0.27	0.30	0.26	0.26	2.41	3.19	2.41	2.72
B/ Reg	0.32	0.30	0.37	0.32	0.18	0.19	0.20	0.18

## **4 Stores and surface by group and chain**

This section focuses on hypermarkets, supermarkets and hard discount stores (exclude?). "Drive-through" are thus left aside.

### **4.1 Stores and surface by group**

The following table shows the number of hypermarkets, supermarkets and hard discount stores operated by the main grocery store groups in France.

Table 5: Type of store and surface by retail group

	Nb				Cum Surf. (mil $m^2$ )				Avg. Surf. ( $m^2$ )		
	All	Hyp	Sup	Dis	All	Hyp	Sup	Dis	Hyp	Sup	Dis
CARREFOUR	2,560	372	1,369	819	4.81	2.52	1.69	0.59	6,786	1,237	720
%	100	15	53	32	100	53	35	12			
MOUSQUETAIRIES	2,140	348	1,464	328	3.58	1.10	2.23	0.24	3,173	1,523	746
%	100	16	68	15	100	31	62	7			
CASINO	2,044	216	1,162	666	2.92	1.14	1.19	0.59	5,269	1,024	883
%	100	11	57	33	100	39	41	20			
LIDL	1,522	0	0	1,522	1.25	0.00	0.00	1.25			824
%	100	0	0	100	100	0	0	100			
SYSTEME U	1,059	337	722	0	2.28	1.21	1.07	0.00	3,593	1,482	
%	100	32	68	0	100	53	47	0			
ALDI	917	0	0	917	0.64	0.00	0.00	0.64			698
%	100	0	0	100	100	0	0	100			
LECLERC	626	522	104	0	2.98	2.82	0.15	0.00	5,408	1,463	
%	100	83	17	0	100	95	5	0			
AUCHAN	565	159	406	0	2.00	1.44	0.56	0.00	9,074	1,380	
%	100	28	72	0	100	72	28	0			
LOUIS DELHAIZE	201	69	132	0	0.80	0.60	0.20	0.00	8,693	1,536	
%	100	34	66	0	100	75	25	0			
DIAPAR	116	0	116	0	0.06	0.00	0.06	0.00			533
%	100	0	100	0	100	0	100	0			
COLRUYT	110	0	110	0	0.09	0.00	0.09	0.00			837
%	100	0	100	0	100	0	100	0			
AUTRE	419	8	186	225	0.35	0.04	0.17	0.14	5,307	917	615
%	100	2	44	54	100	12	49	39			
ALL	12,279	2,031	5,771	4,477	21.76	10.89	7.42	3.46	5,360	1,286	772
%	100	17	47	36	100	50	34	16			

## 4.2 Grocery store group potential national market shares based on store sizes and locations

TODO: describe method to compute market share of each group at municipality level.  
Then use of INSEE household count and median revenue to estimate group revenues within each market.

Table 6: Group potential national market shares

Group	National market share
CARREFOUR	23%
CASINO	17%
MOUSQUETAIRES	14%
LECLERC	13%
AUCHAN	10%
SYSTEME U	9%
LIDL	6%
LOUIS DELHAIZE	3%
ALDI	2%
OTHER	2%
TOTAL	100%

## 4.3 Stores and surface by group and chain

Except for Aldi and Lidl, stores are subdivided in retail chains based on criteria such as the size or the location (city center, suburb, countryside etc.).

### 4.3.1 Carrefour

All Carrefour	#Tot	#Hyp	#Sup	#Dis	Avg S.	Med S.	Min S.	Max S.	Cum S.
DIA %	819	0	0	819	720	782	215	1,280	0.59
CARREFOUR MARKET	801	114	687	0	1,894	1,800	654	5,600	1.52
CARREFOUR CONTACT	402	0	402	0	682	670	400	1,800	0.27
CARREFOUR	221	221	0	0	9,319	9,000	2,500	24,000	2.06
CARREFOUR CITY	123	0	123	0	504	450	400	800	0.06
MARKET	121	37	84	0	2,204	2,200	722	4,500	0.27
SHOPI	34	0	34	0	573	500	400	870	0.02
CARREFOUR EXPRESS	21	0	21	0	475	460	400	750	0.01
CARREFOUR AUTRE	18	0	18	0	482	450	400	821	0.01

Surfaces are in  $m^2$  except for Cum S. which is in million  $m^2$

Independent Carrefour	#Tot	#Hyp	#Sup	#Dis	Avg S.	Med S.	Min S.	Max S.	Cum S.
CARREFOUR CONTACT	398	0	398	0	683	670	400	1,800	0.27
CARREFOUR MARKET	388	48	340	0	1,807	1,700	800	4,800	0.70
CARREFOUR CITY	123	0	123	0	504	450	400	800	0.06
DIA %	68	0	0	68	769	820	243	1,200	0.05
SHOPI	34	0	34	0	573	500	400	870	0.02
CARREFOUR EXPRESS	21	0	21	0	475	460	400	750	0.01
CARREFOUR AUTRE	18	0	18	0	482	450	400	821	0.01
MARKET	13	1	12	0	1,744	1,800	900	2,680	0.02
CARREFOUR	10	10	0	0	7,796	7,246	5,006	10,842	0.08

Surfaces are in  $m^2$  except for Cum S. which is in million  $m^2$

As of September 2014, Carrefour listed the following chains on its website: "Carrefour", "Carrefour market" (created in 2007 to replace "Champion"), "Carrefour contact" (created in 2008 for stores located in rural areas or in the periphery of cities), "Carrefour city" (cre-

ated in 2009 for stores located in city centers, opening 6/7 days 7h-22h or 23h), "Carrefour montagne" (created in 2009 for small stores located in the mountains), "Carrefour express" (created in 2007 for small stores, difference with "city" and "contact" is not clear) and "Market" (created in 2012, includes virtually all ex-"Hyper champion").

#### 4.3.2 Casino

All Casino	#Tot	#Hyp	#Sup	#Dis	Avg S.	Med S.	Min S.	Max S.	Cum S.
LEADER PRICE	666	0	0	666	883	880	100	2,000	0.59
FRANPRIX	448	0	448	0	608	500	400	2,400	0.27
CASINO	341	16	325	0	1,513	1,500	415	3,000	0.52
MONOPRIX	296	60	236	0	1,792	1,656	402	5,154	0.53
SPAR	113	0	113	0	560	550	400	1,200	0.06
GEANT CASINO	103	103	0	0	7,668	7,600	3,800	17,112	0.79
HYPER CASINO	44	37	7	0	3,138	2,800	2,160	5,950	0.14
MONOP'	19	0	19	0	565	515	400	1,000	0.01
CASINO AUTRE	14	0	14	0	518	520	400	698	0.01

Surfaces are in  $m^2$  except for Cum S. which is in million  $m^2$

Independent Casino	#Tot	#Hyp	#Sup	#Dis	Avg S.	Med S.	Min S.	Max S.	Cum S.
LEADER PRICE	489	0	0	489	886	896	100	2,000	0.43
FRANPRIX	444	0	444	0	607	500	400	2,400	0.27
SPAR	72	0	72	0	566	550	400	1,200	0.04
CASINO	41	0	41	0	1,192	1,050	476	1,900	0.05
MONOPRIX	35	4	31	0	1,476	1,421	442	3,371	0.05
MONOP'	9	0	9	0	606	500	450	1,000	0.01
CASINO AUTRE	4	0	4	0	445	440	400	500	0.00

Surfaces are in  $m^2$  except for Cum S. which is in million  $m^2$

### 4.3.3 Les Mousquetaires

	#Tot	#Hyp	#Sup	#Dis	Avg S.	Med S.	Min S.	Max S.	Cum S.
INTERMARCHE SUPER	1,362	252	1,110	0	1,947	1,950	499	4,100	2.65
NETTO	328	0	0	328	746	704	100	1,780	0.24
INTERMARCHE CONTACT	312	0	312	0	804	800	400	1,500	0.25
INTERMARCHE HYPER	96	96	0	0	4,119	4,000	2,800	6,710	0.40
INTERMARCHE EXPRESS	37	0	37	0	878	928	400	1,340	0.03
INTERMARCHE AUTRE	5	0	5	0	642	620	400	988	0.00

Surfaces are in  $m^2$  except for Cum S. which is in million  $m^2$

	#Tot	#Hyp	#Sup	#Dis	Avg S.	Med S.	Min S.	Max S.	Cum S.
INTERMARCHE SUPER	1,361	252	1,109	0	1,947	1,950	499	4,100	2.65
NETTO	328	0	0	328	746	704	100	1,780	0.24
INTERMARCHE CONTACT	312	0	312	0	804	800	400	1,500	0.25
INTERMARCHE HYPER	96	96	0	0	4,119	4,000	2,800	6,710	0.40
INTERMARCHE EXPRESS	37	0	37	0	878	928	400	1,340	0.03
INTERMARCHE AUTRE	5	0	5	0	642	620	400	988	0.00

Surfaces are in  $m^2$  except for Cum S. which is in million  $m^2$

### 4.3.4 Système U

	#Tot	#Hyp	#Sup	#Dis	Avg S.	Med S.	Min S.	Max S.	Cum S.
SUPER U	729	272	457	0	2,339	2,273	700	5,200	1,705,104
U EXPRESS	230	1	229	0	862	802	400	2,854	198,164
HYPER U	64	64	0	0	5,621	5,310	3,003	11,750	359,726
UTILE	32	0	32	0	486	455	400	700	15,556
MARCHE U	4	0	4	0	626	550	450	956	2,506

#### 4.3.5 Leclerc

LECLERC	#Tot	#Hyp	#Sup	#Dis	#MP	Avg S.	Med S.	Min S.	Max S.	Cum S.
CENTRE E.LECLERC	581	526	55	0	0	5063	4709	826	15600	2941426
LECLERC EXPRESS	71	1	70	0	0	1059	995	400	3500	75201

#### 4.3.6 Auchan

	#Tot	#Hyp	#Sup	#Dis	Avg S.	Med S.	Min S.	Max S.	Cum S.
SIMPLY MARKET	304	16	288	0	1,577	1,523	605	3,624	479,471
AUCHAN	135	135	0	0	10,102	9,985	2,800	19,700	1,363,828
ATAC	77	0	77	0	1,339	1,200	700	2,450	103,135
LES HALLES D'AUCHAN	7	7	0	0	4,124	4,000	2,800	5,650	28,870
AUCHAN CITY	1	1	0	0	4,000	4,000	4,000	4,000	4,000
AUCHAN AUTRE	41	0	41	0	573	550	400	900	23,481

#### 4.3.7 Louis Delhaize

LOUIS DELHAIZE	#Tot	#Hyp	#Sup	#Dis	#MP	Avg S.	Med S.	Min S.	Max S.	Cum S.
SUPERMARCHE MATCH	144	11	133	0	0	1621	1621	450	2900	233353*
CORA	59	59	0	0	0	9725	9385	2500	15500	573763

#### 4.3.8 Diapar

	#Tot	#Hyp	#Sup	#Dis	Avg S.	Med S.	Min S.	Max S.	Cum S.
G 20	95	0	95	0	546	420	400	1,200	51,895
AUTRE DIAPAR	21	0	21	0	473	400	400	828	9,928

#### 4.3.9 Colruyt

	#Tot	#Hyp	#Sup	#Dis	Avg S.	Med S.	Min S.	Max S.	Cum S.
COLRUYT	69	0	69	0	1,002	990	630	1,700	69,149
COCCINELLE	41	0	41	0	558	500	400	1,200	22,874

## 5 Store locations

The following section offers a brief overview of groups' store locations across France.  
"Drive-through" is not included.

## 5.1 Distribution of stores across regions by retail group

Table 7: Percentage of stores by region within each group

	CARR.	CASI.	MOUS.	LIDL	SYS.U	ALDI	LECL.	AUCH.	L.D.	DIAP.	COLR.	OTH.	TOT.
Ile-de-France	18	36	6	11	5	6	8	23	3	62	3	5	15
Rhone-Alpes	11	11	9	8	8	5	6	6	0	0	4	8	9
PACA	8	11	7	7	6	6	6	4	0	0	0	4	7
Nord-Pas-de-Calais	11	2	5	9	2	16	4	6	29	1	5	1	7
Bretagne	4	4	9	6	12	2	10	0	1	4	3	1	6
Aquitaine	5	5	8	6	5	3	9	4	0	0	2	7	6
Pays de la Loire	4	2	5	6	17	4	8	1	0	10	4	3	5
Midi-Pyrenees	4	5	8	5	4	5	5	2	0	1	0	3	5
Languedoc-Roussillon	4	5	6	6	5	4	2	2	0	5	0	1	4
Lorraine	2	2	3	7	3	10	4	4	31	1	15	11	4
Centre	4	2	5	4	6	4	5	7	1	7	7	3	4
Picardie	4	2	4	3	1	6	4	4	6	2	3	5	3
Bourgogne	2	2	4	2	1	5	4	15	1	0	12	4	3
Haute-Normandie	4	1	3	3	3	3	3	2	0	0	2	11	3
Alsace	1	1	1	4	5	3	7	6	16	0	1	15	3
Poitou-Charentes	1	2	4	3	7	1	5	2	0	1	1	2	3
Basse-Normandie	4	1	2	3	4	2	3	1	0	3	5	5	3
Champagne-Ardenne	2	2	3	2	1	5	4	2	4	1	4	2	2
Franche-Comte	1	2	2	2	3	4	1	4	3	0	27	3	2
Auvergne	2	2	3	2	1	3	2	4	1	0	3	3	2
Limousin	1	2	2	1	2	2	1	1	0	2	0	1	2
TOT.	100	100	100	100	100	100	100	100	100	100	100	100	100

Table 8: Percentage of surface by region within each group

	CARR.	CASI.	MOUS.	LIDL	SYS.U	ALDI	LECL.	AUCH.	L.D.	DIAP.	COLR.	OTH.	TOT.
Ile-de-France	19	26	6	12	4	6	9	22	7	59	3	8	14
Rhone-Alpes	12	13	9	8	7	5	6	6	1	0	4	13	9
PACA	8	13	6	7	4	6	5	7	0	0	0	5	7
Nord-Pas-de-Calais	9	1	5	9	1	17	4	13	19	1	3	1	7
Pays de la Loire	4	3	5	5	21	4	10	3	0	10	3	3	6
Bretagne	5	5	8	6	12	2	8	0	2	5	2	1	6
Aquitaine	5	6	8	6	5	3	9	5	0	0	2	6	6
Midi-Pyrenees	4	5	7	5	4	5	6	2	0	1	0	2	5
Centre	4	3	5	4	6	4	5	6	2	7	7	3	5
Lorraine	2	1	4	7	3	10	5	5	27	1	20	11	5
Languedoc-Roussillon	5	6	7	6	5	4	2	3	1	5	0	1	4
Picardie	3	2	5	3	1	6	4	6	6	3	2	4	4
Bourgogne	3	3	4	2	1	5	3	7	2	0	12	4	3
Poitou-Charentes	1	2	5	3	7	1	5	2	0	1	1	2	3
Alsace	1	1	1	3	5	3	5	4	14	0	1	15	3
Haute-Normandie	4	1	3	3	3	3	3	3	1	0	1	8	3
Basse-Normandie	4	1	3	3	3	2	3	1	1	5	3	4	3
Champagne-Ardenne	3	2	3	2	1	5	4	1	7	1	4	2	3
Franche-Comte	1	3	2	2	4	4	1	2	4	0	30	3	2
Auvergne	3	2	3	2	1	3	1	3	2	0	2	3	2
Limousin	1	2	2	1	2	2	1	1	1	2	0	1	1
TOT.	100	100	100	100	100	100	100	100	100	100	100	100	100

## 5.2 Presence of retail groups within each region

The following tables provide an overview of the market power of each group by region

Table 9: Percentage of stores operated by each group in each region

	CARR.	CASI.	MOUS.	LIDL	SYS.U	ALDI	LECL.	AUCH.	L.D.	DIAP.	COLR.	OTH.	TOT.
Ile-de-France	24	39	7	9	3	3	3	7	0	4	0	1	100
Rhone-Alpes	27	21	19	11	8	4	4	3	0	0	0	3	100
PACA	24	26	17	12	7	6	4	2	0	0	0	2	100
Nord-Pas-de-Calais	34	4	12	16	2	17	3	4	7	0	1	0	100
Bretagne	17	11	27	14	18	3	9	0	0	1	0	0	100
Aquitaine	18	15	25	14	7	4	9	4	0	0	0	4	100
Pays de la Loire	16	7	17	14	28	5	7	1	0	2	1	2	100
Midi-Pyrenees	19	16	27	13	7	8	6	2	0	0	0	2	100
Languedoc-Roussillon	20	17	25	16	10	6	2	2	0	1	0	1	100
Lorraine	10	6	13	18	5	16	5	4	11	0	3	9	100
Centre	20	9	21	11	12	7	6	8	0	2	2	2	100
Picardie	26	7	20	11	3	12	6	6	3	0	1	5	100
Bourgogne	12	12	19	9	4	11	5	20	0	0	3	4	100
Haute-Normandie	27	7	15	11	9	8	5	4	0	0	1	13	100
Alsace	4	3	7	15	14	9	12	10	9	0	0	18	100
Poitou-Charentes	10	13	26	13	22	3	9	3	0	0	0	3	100
Basse-Normandie	29	5	15	14	12	7	6	2	0	1	2	7	100
Champagne-Ardenne	19	12	21	12	2	16	7	3	3	0	1	2	100
Franche-Comte	11	10	16	12	12	11	3	7	2	0	10	4	100
Auvergne	22	12	23	11	4	9	4	9	1	0	1	4	100
Limousin	15	20	24	9	13	7	4	3	1	1	0	3	100
TOT.	21	17	17	12	9	7	5	5	2	1	1	3	100

Table 10: Percentage of surface operated by each group in each region

	CARR.	CASI.	MOUS.	LIDL	SYS.U	ALDI	LECL.	AUCH.	L.D.	DIAP.	COLR.	OTH.	TOT.
Ile-de-France	30	25	7	5	3	1	9	14	2	1	0	1	100
Rhone-Alpes	30	19	17	5	8	2	10	6	0	0	0	2	100
PACA	26	26	15	6	6	2	9	9	0	0	0	1	100
Nord-Pas-de-Calais	31	3	12	8	2	7	8	18	11	0	0	0	100
Pays de la Loire	14	6	13	5	35	2	21	4	0	0	0	1	100
Bretagne	18	11	22	6	22	1	18	0	1	0	0	0	100
Aquitaine	18	13	22	6	8	2	21	8	0	0	0	2	100
Midi-Pyrenees	21	15	24	6	9	3	17	5	0	0	0	1	100
Centre	21	8	18	5	14	3	15	12	2	0	1	1	100
Lorraine	8	4	14	8	7	6	16	9	22	0	2	4	100
Languedoc-Roussillon	24	17	25	8	11	3	6	6	1	0	0	0	100
Picardie	21	6	22	5	4	5	14	15	6	0	0	2	100
Bourgogne	19	14	19	4	4	4	13	18	2	0	2	2	100
Poitou-Charentes	8	10	24	5	23	1	21	7	0	0	0	1	100
Alsace	4	3	6	6	17	3	22	13	17	0	0	8	100
Haute-Normandie	29	4	18	5	11	3	15	9	1	0	0	4	100
Basse-Normandie	31	5	17	6	13	2	18	3	2	1	0	3	100
Champagne-Ardenne	23	9	18	5	2	6	22	2	10	0	1	1	100
Franche-Comte	10	16	17	5	17	5	9	7	7	0	6	2	100
Auvergne	26	13	19	5	4	4	9	13	4	0	0	2	100
Limousin	19	16	22	4	16	4	11	4	4	0	0	2	100
TOT.	22	13	16	6	10	3	14	9	4	0	0	2	100

### 5.3 Group market power by region

Table 11: Percentage of surface operated by each group in each region

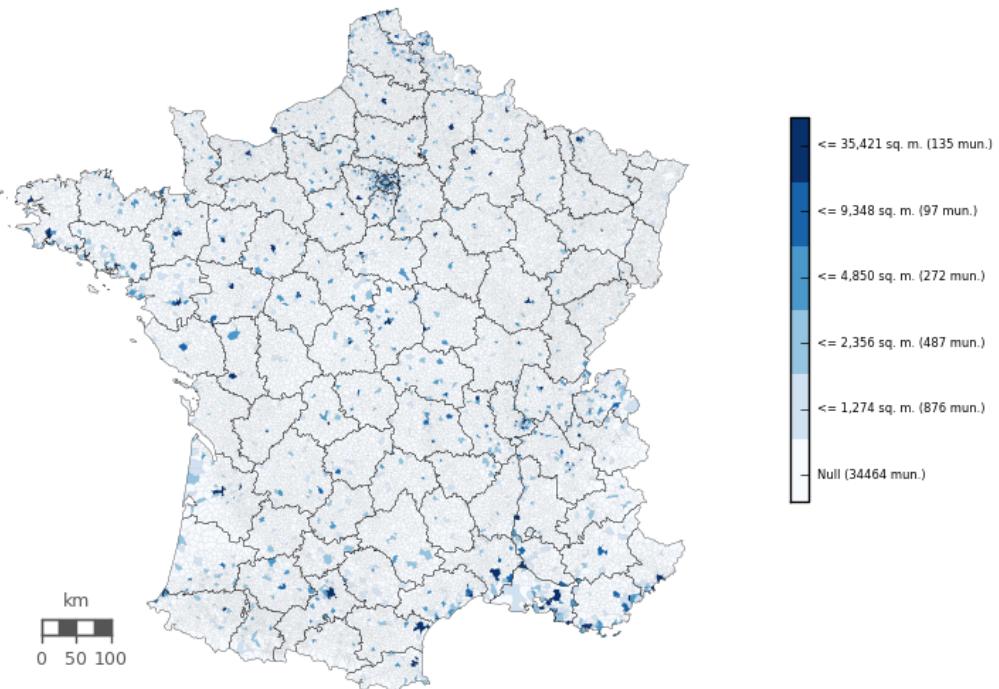
	CR1_n	CR2_n	CR3_n	CR4_n	CR1_s	CR2_s	CR3_s	CR4_s	HHI_n	HHI_s
Alsace	15	29	41	50	22	39	56	69	0.09	0.14
Aquitaine	25	43	58	71	22	43	61	74	0.15	0.16
Auvergne	23	45	57	69	26	45	58	71	0.15	0.15
Basse-Normandie	29	44	58	70	31	49	65	79	0.15	0.18
Bourgogne	20	39	52	63	19	37	55	69	0.13	0.14
Bretagne	27	45	61	75	22	44	62	80	0.17	0.18
Centre	21	41	53	64	21	39	54	68	0.13	0.14
Champagne-Ardenne	21	40	56	69	23	46	63	73	0.14	0.16
Franche-Comte	16	29	40	52	17	34	49	60	0.11	0.12
Haute-Normandie	27	42	54	63	29	47	62	73	0.13	0.16
Ile-de-France	39	63	72	79	30	55	70	79	0.23	0.19
Languedoc-Roussillon	25	45	62	78	25	48	66	76	0.17	0.17
Limousin	24	44	59	72	22	41	57	72	0.15	0.15
Lorraine	18	34	48	59	22	38	52	61	0.11	0.13
Midi-Pyrenees	27	45	62	75	24	45	61	76	0.17	0.17
Nord-Pas-de-Calais	34	51	68	79	31	49	61	71	0.19	0.17
PACA	26	49	67	79	26	52	66	76	0.18	0.18
Pays de la Loire	28	45	61	75	35	56	70	82	0.17	0.21
Picardie	26	46	58	69	22	43	58	72	0.15	0.15
Poitou-Charentes	26	47	60	73	24	47	68	78	0.16	0.18
Rhone-Alpes	27	48	67	78	30	49	66	76	0.17	0.18
TOT.	21	38	55	67	22	39	52	66	0.14	0.14

## **5.4 Maps of groups' store locations**

For each group, on the first map, supermarkets are represented with green dots and hypermarkets with red dots. The second map accounts for the density of stores across France (stores' size is not taken into account).

Figure 1: CARREFOUR

Surface by municipality: CARREFOUR



Available surface by municipality: CARREFOUR

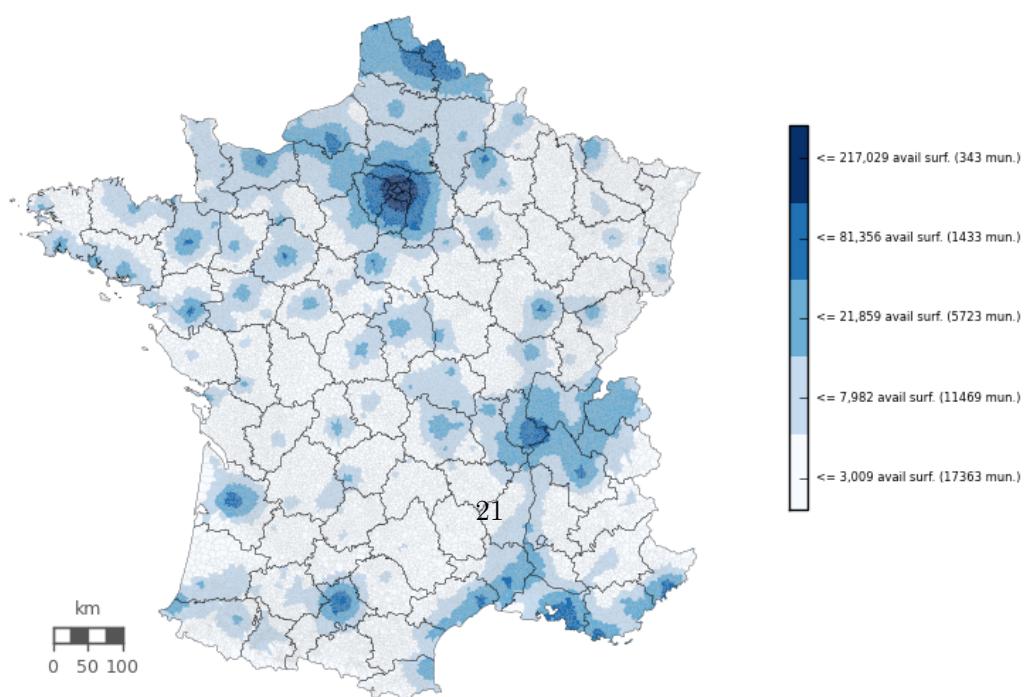
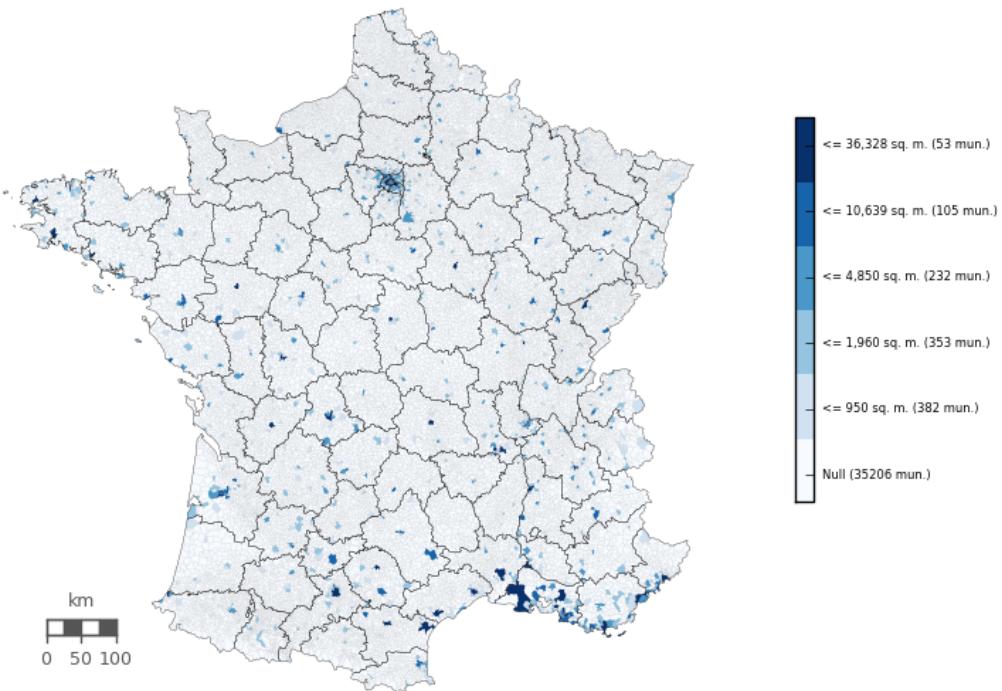


Figure 2: CARREFOUR  
Surface by municipality: CASINO



Available surface by municipality: CASINO

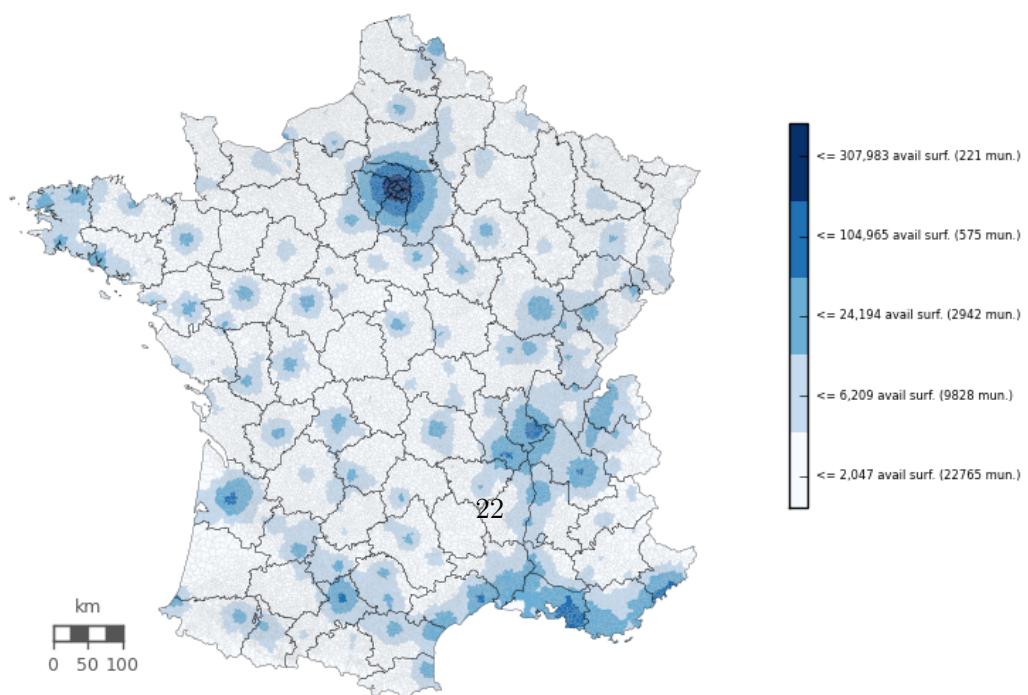
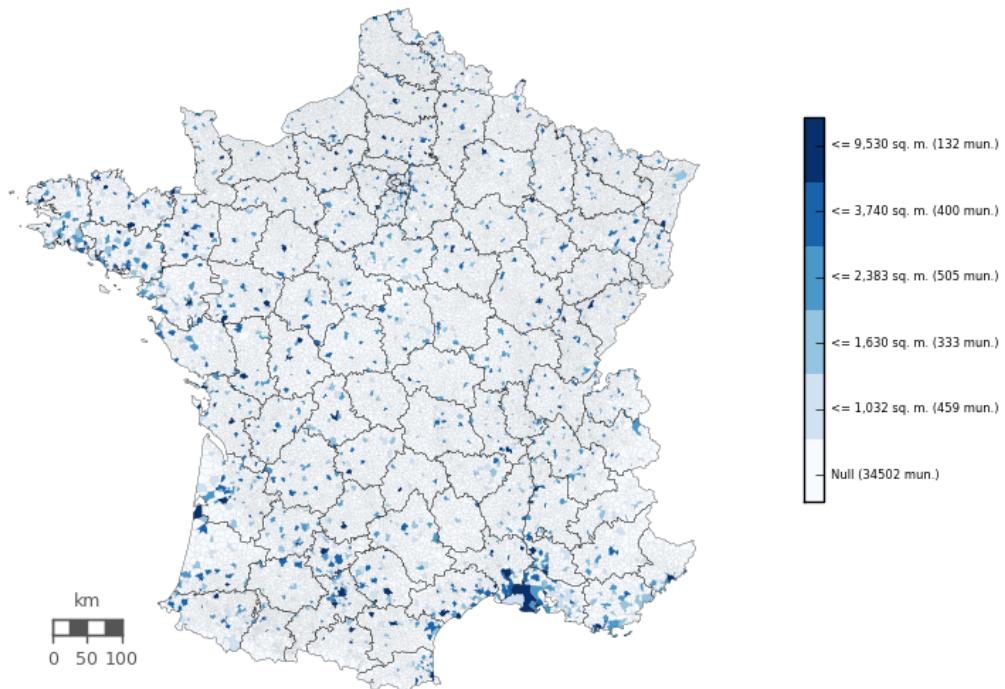


Figure 3: CARREFOUR  
Surface by municipality: MOUSQUETAIRES



Available surface by municipality: MOUSQUETAIRES

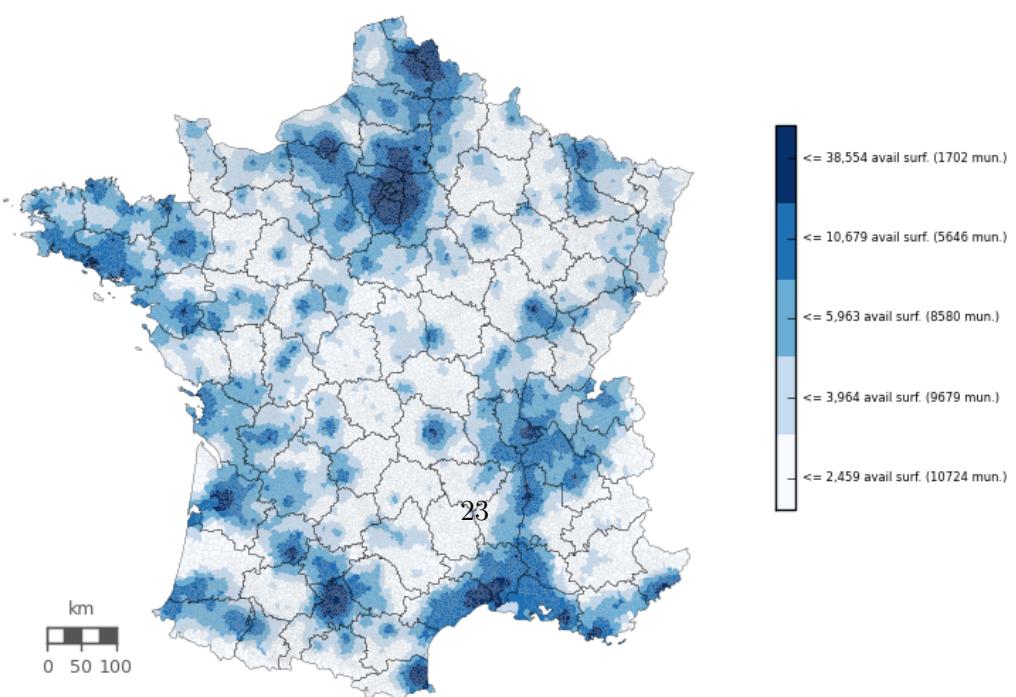
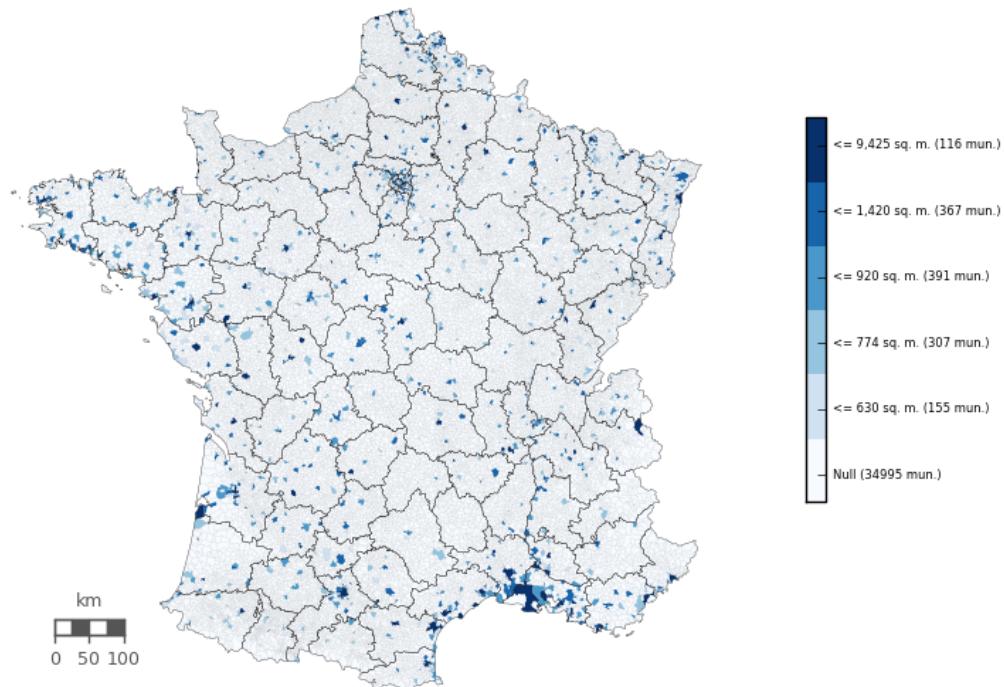


Figure 4: CARREFOUR  
Surface by municipality: LIDL



Available surface by municipality: LIDL

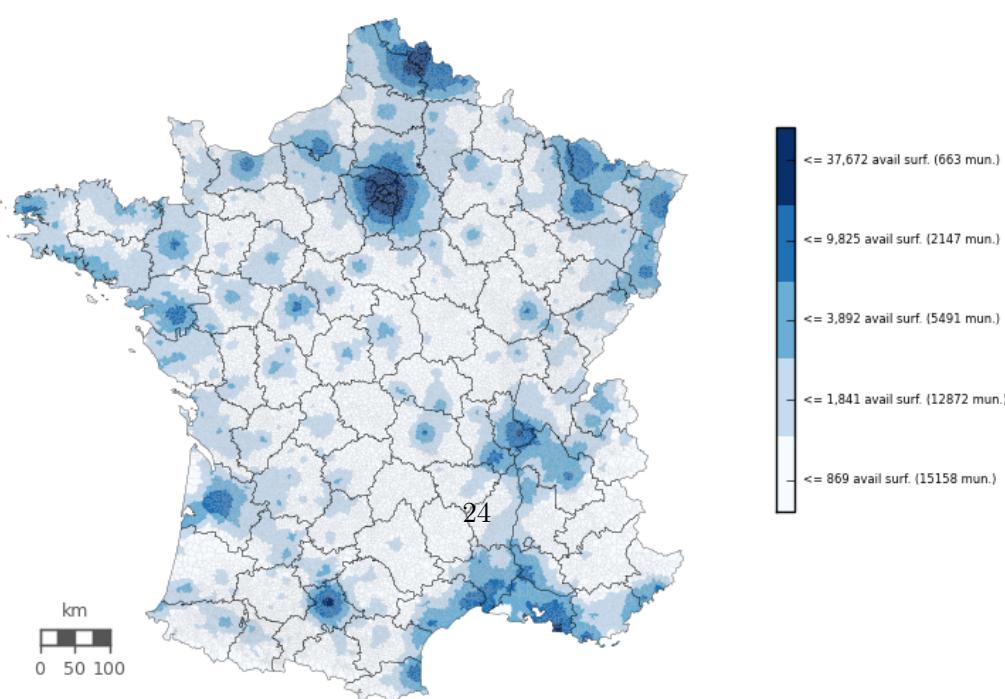
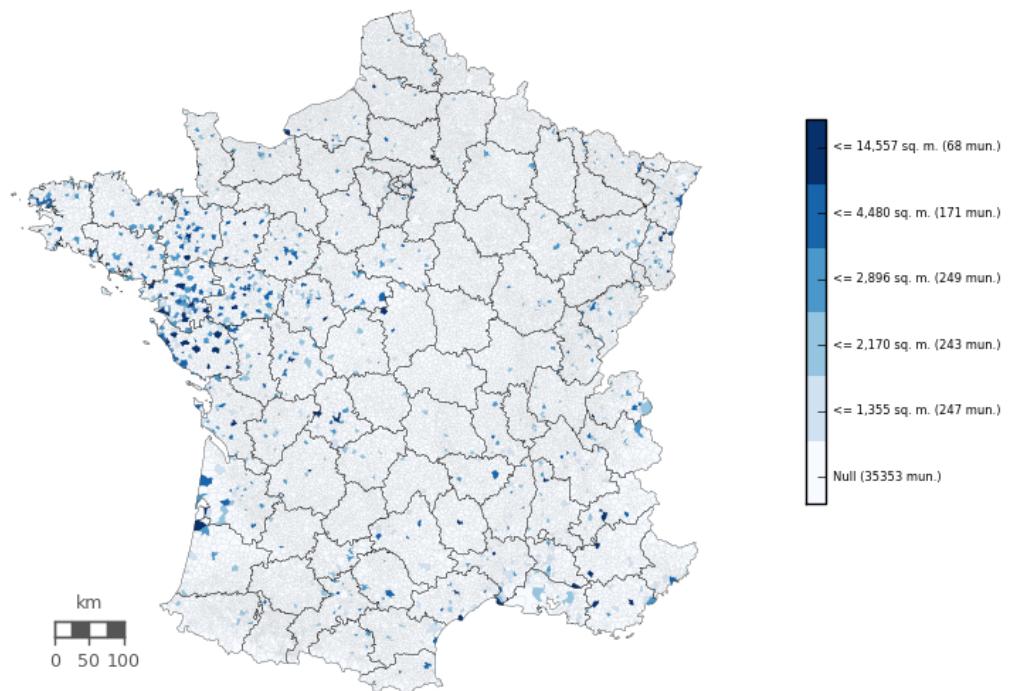


Figure 5: CARREFOUR  
Surface by municipality: SYSTEME U



Available surface by municipality: SYSTEME U

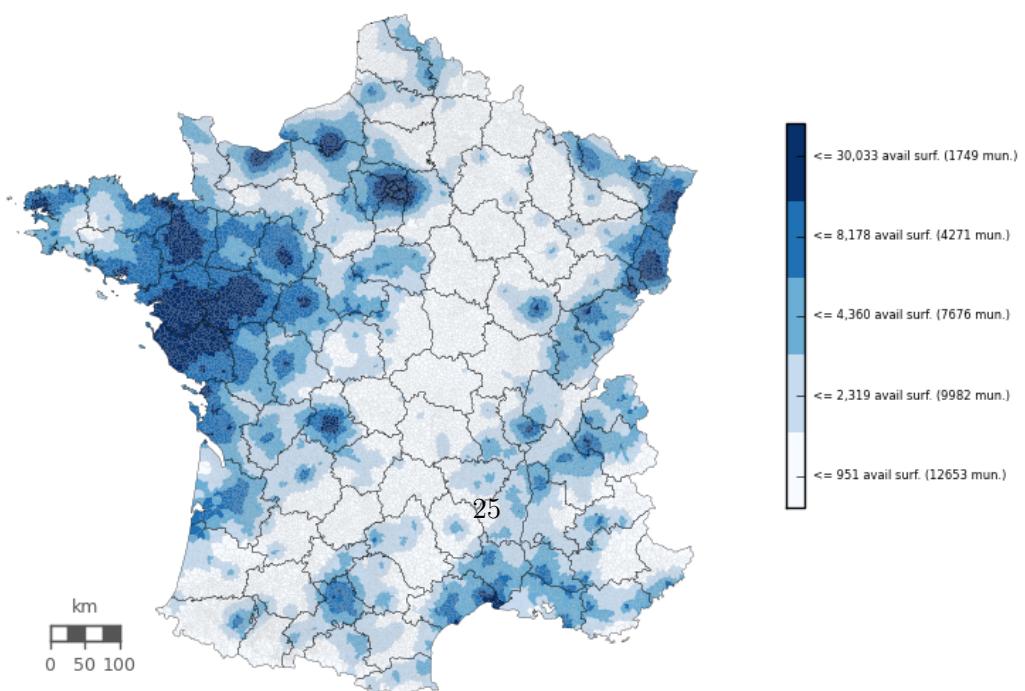
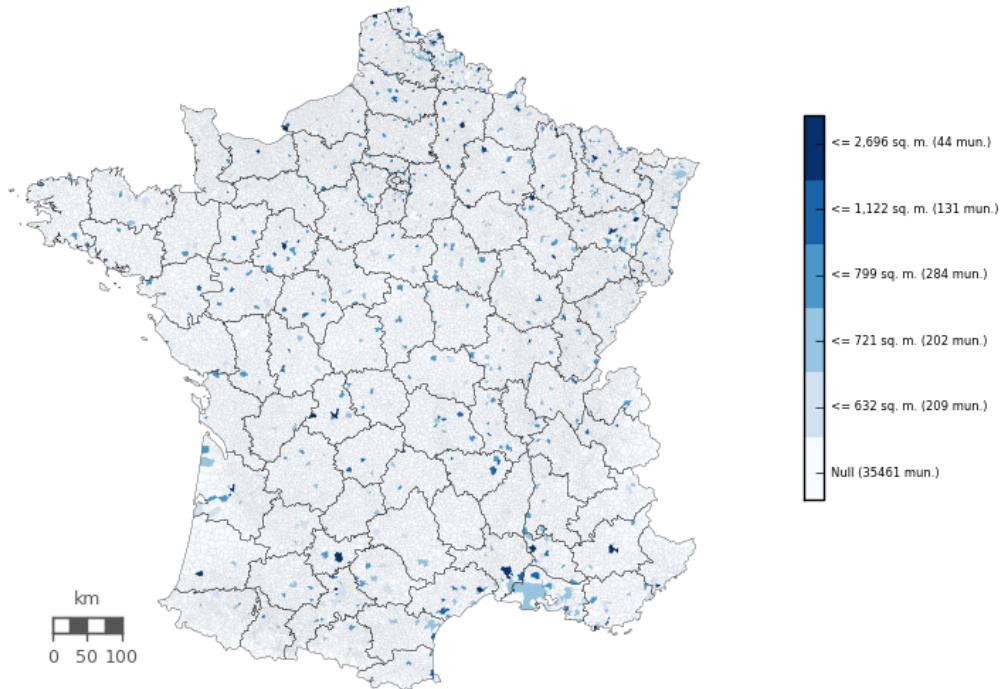


Figure 6: CARREFOUR  
Surface by municipality: ALDI



Available surface by municipality: ALDI

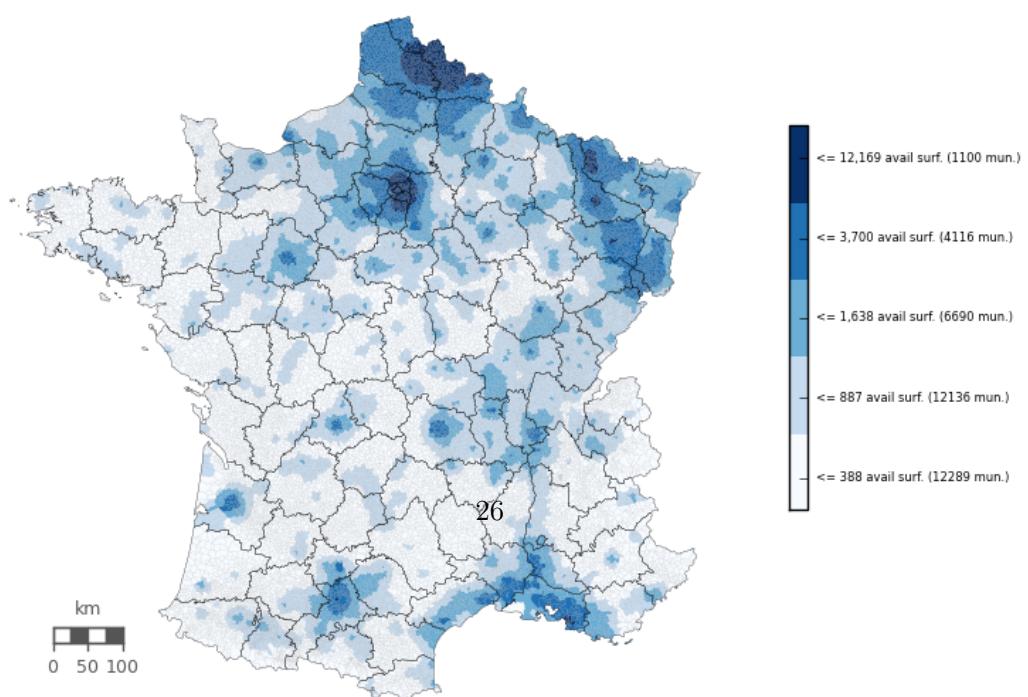
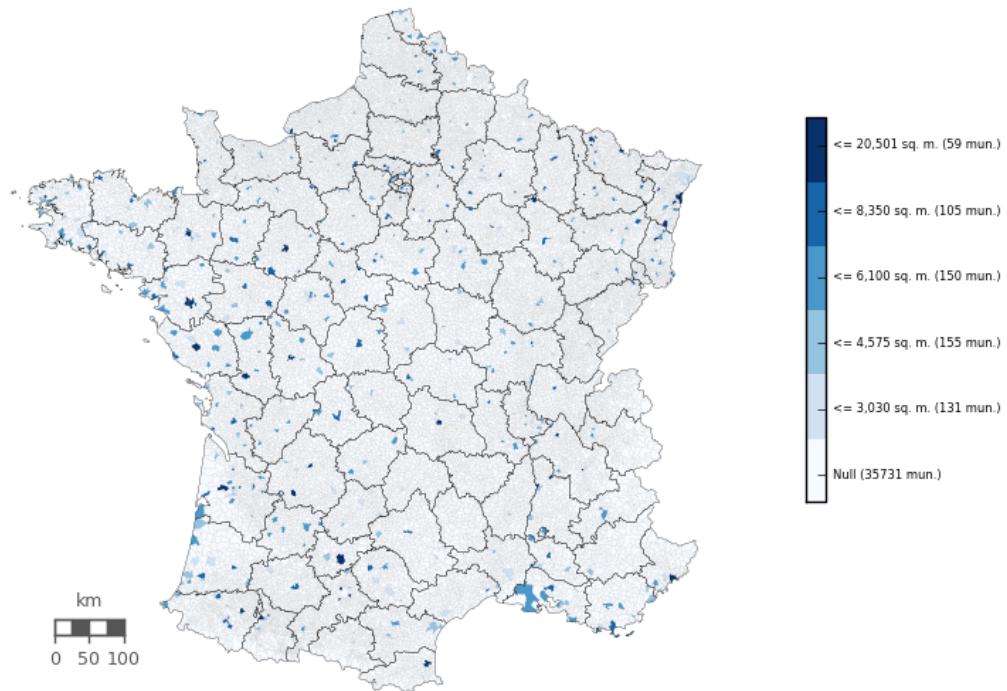


Figure 7: CARREFOUR

Surface by municipality: LECLERC



Available surface by municipality: LECLERC

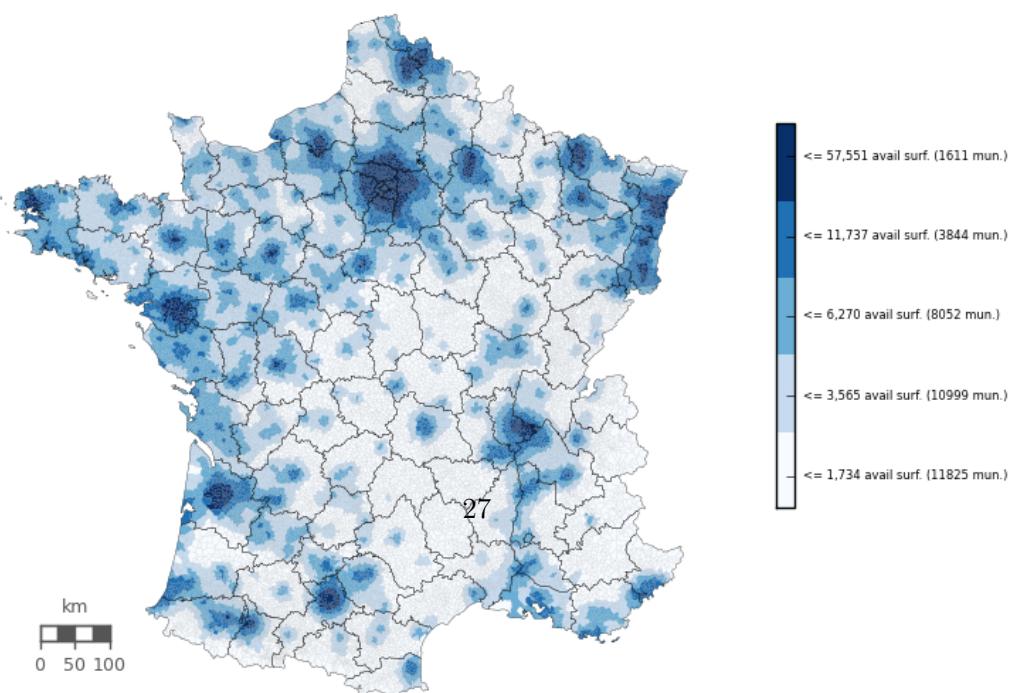
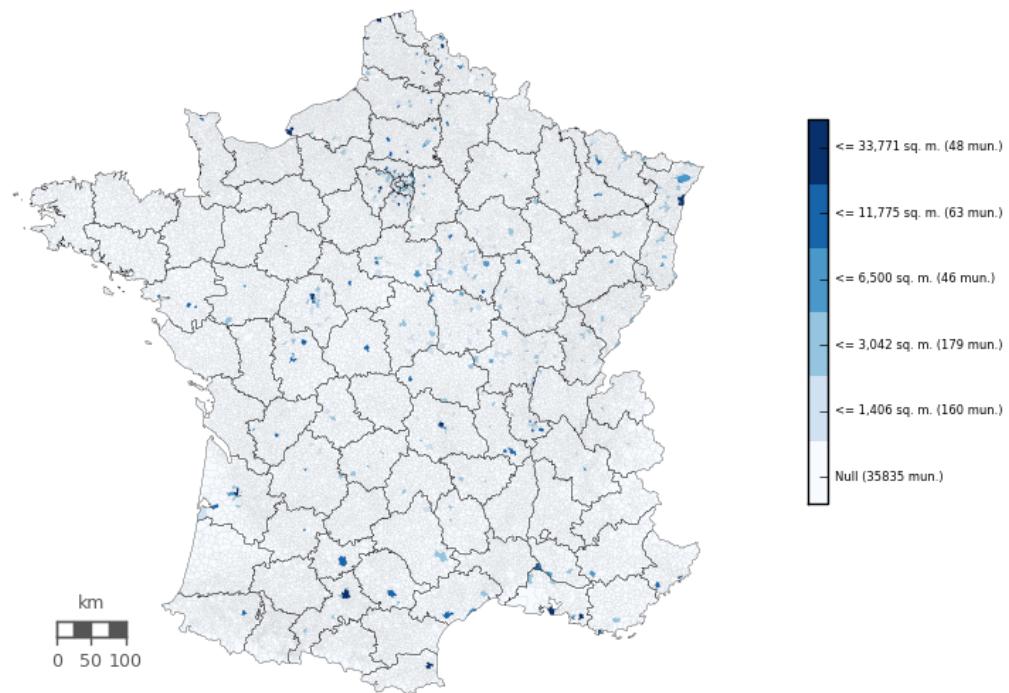


Figure 8: CARREFOUR  
Surface by municipality: AUCHAN



Available surface by municipality: AUCHAN

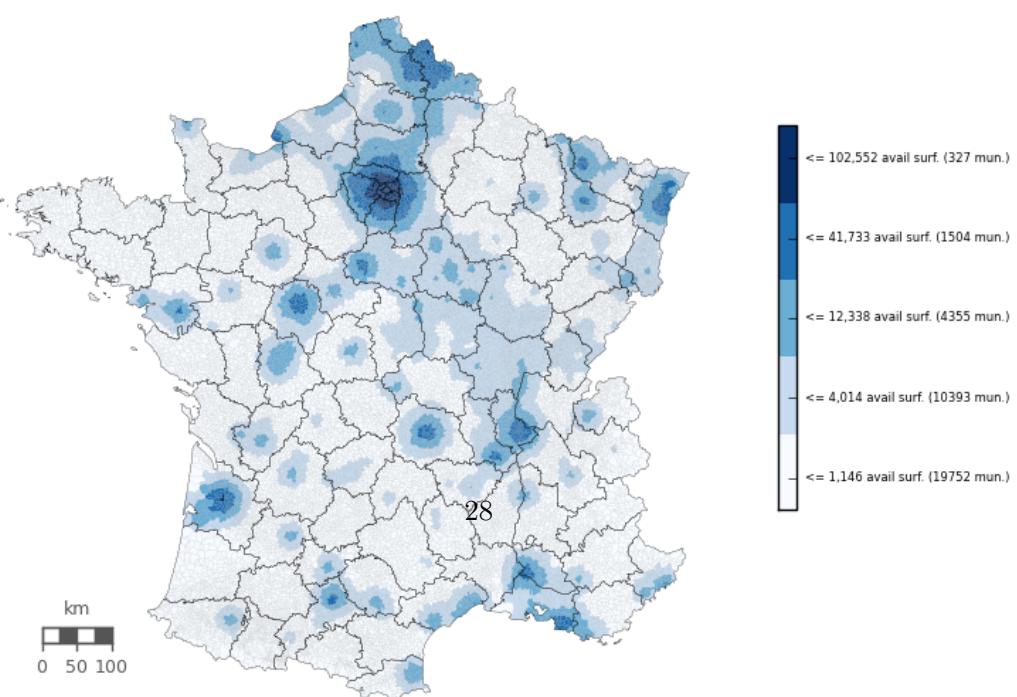
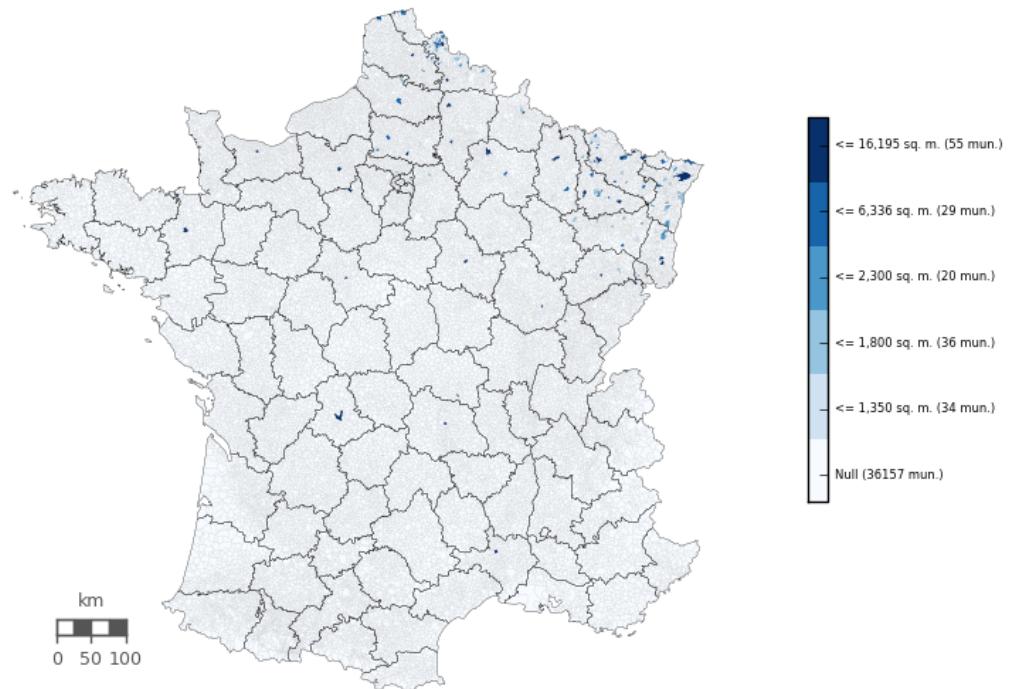


Figure 9: CARREFOUR  
Surface by municipality: LOUIS DELHAIZE



Available surface by municipality: LOUIS DELHAIZE

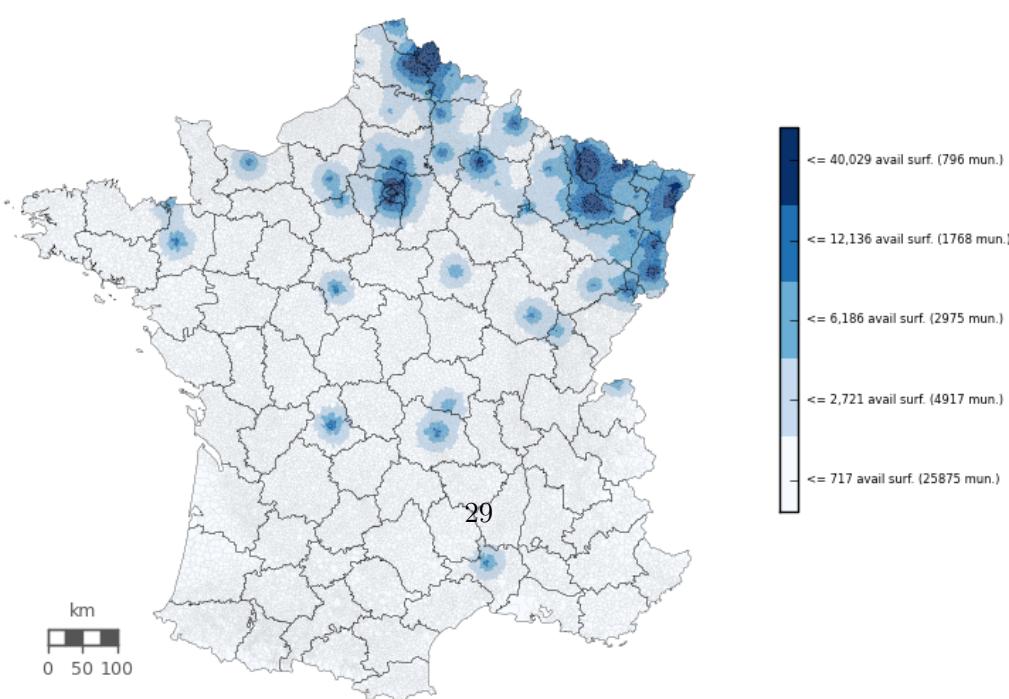
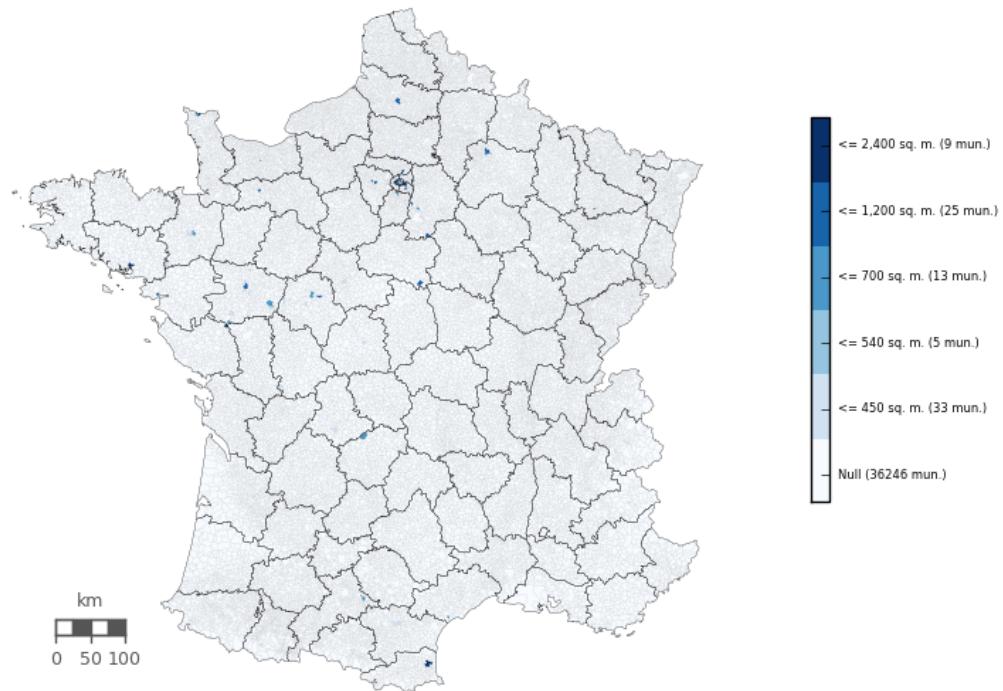


Figure 10: CARREFOUR

Surface by municipality: DIAPAR



Available surface by municipality: DIAPAR

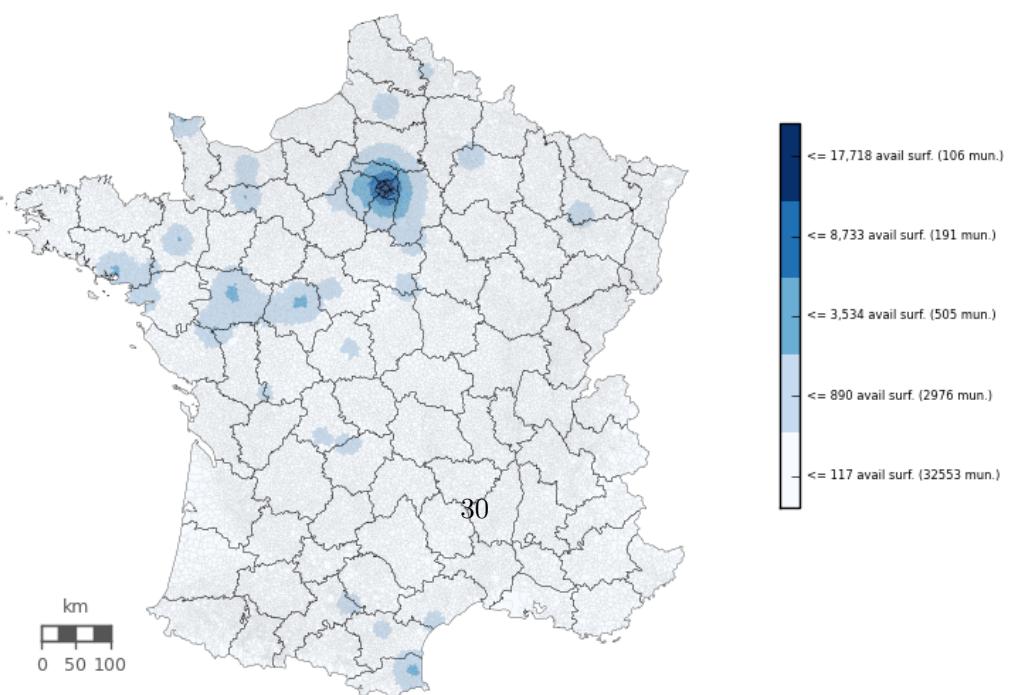
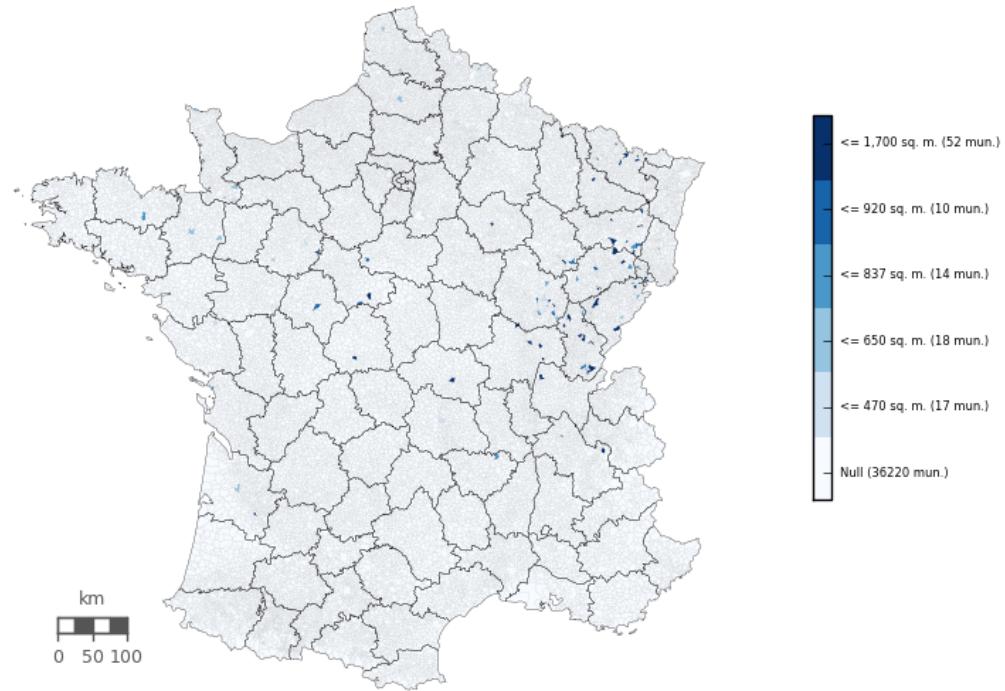
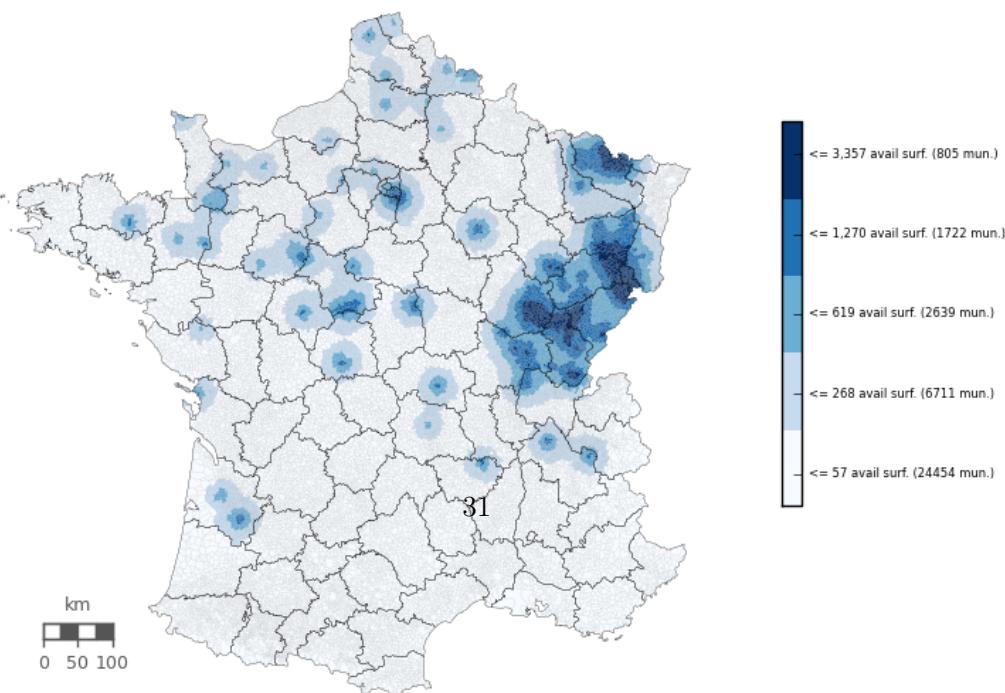


Figure 11: CARREFOUR

Surface by municipality: COLRUYT

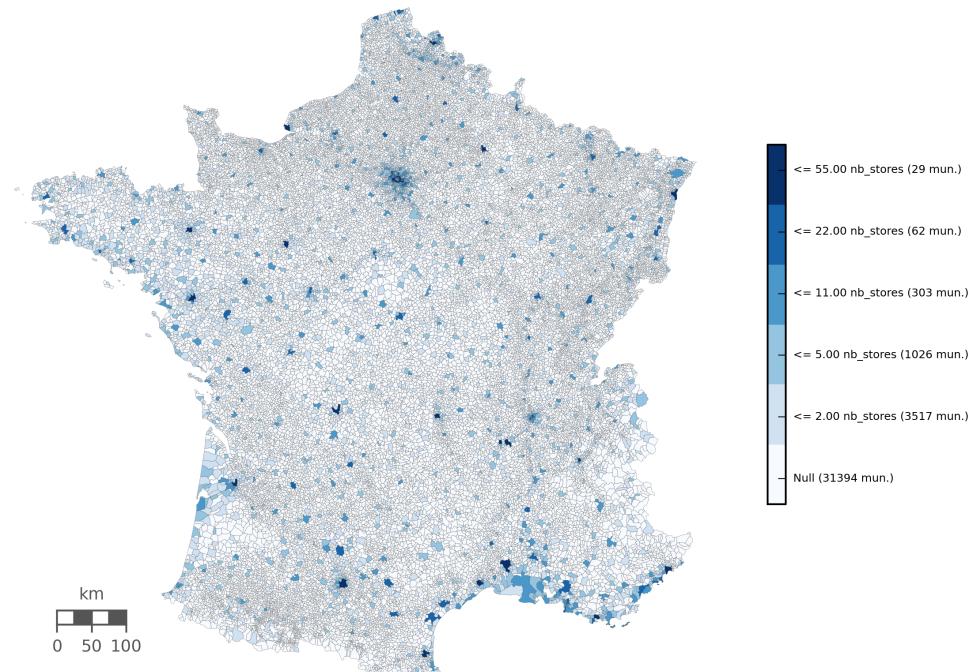


Available surface by municipality: COLRUYT

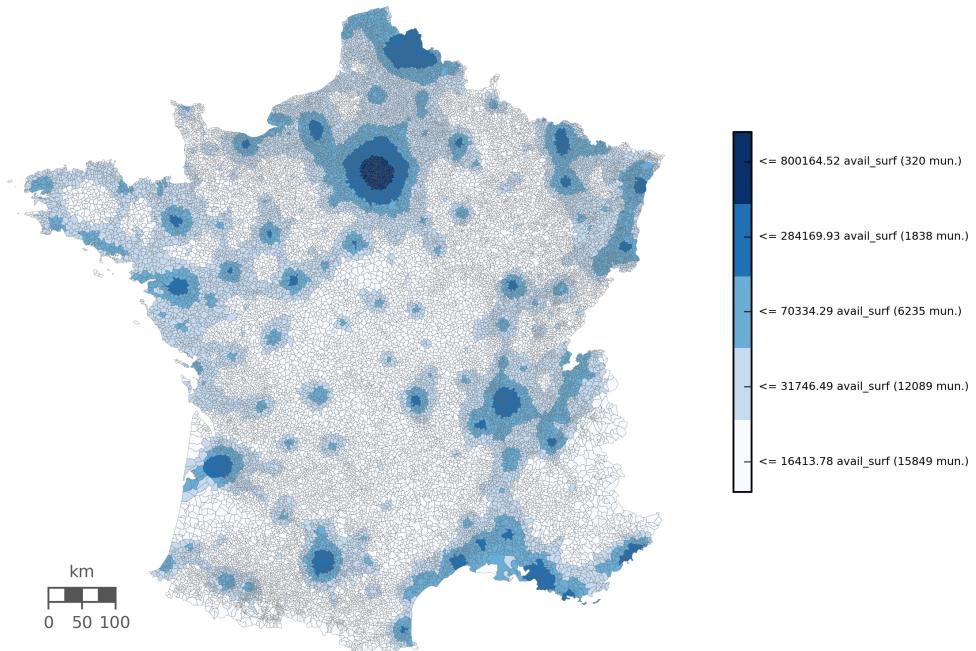


## 5.5 Competition

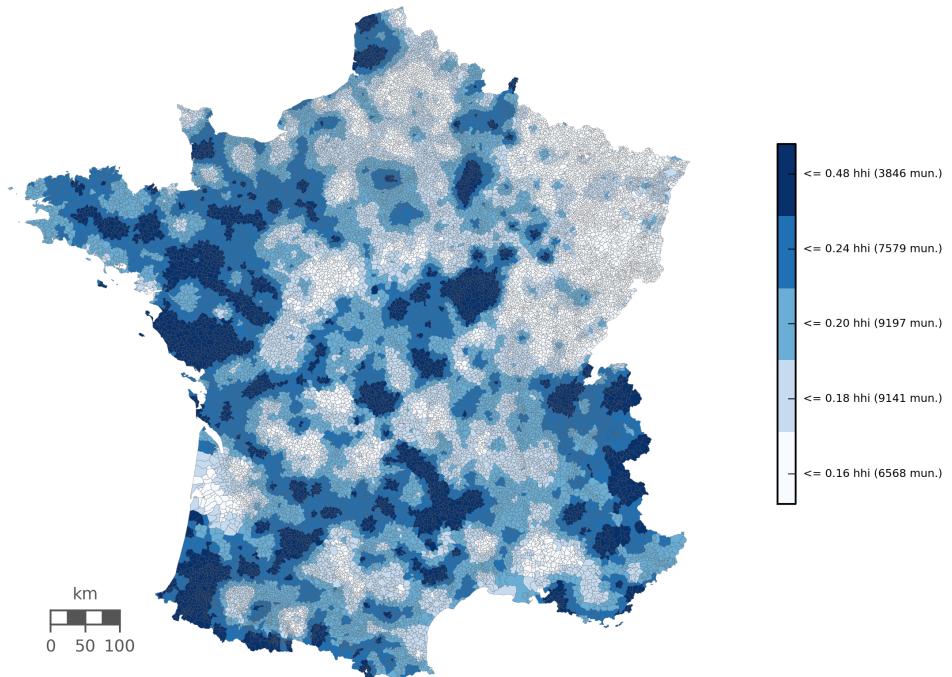
nb\_stores by municipality



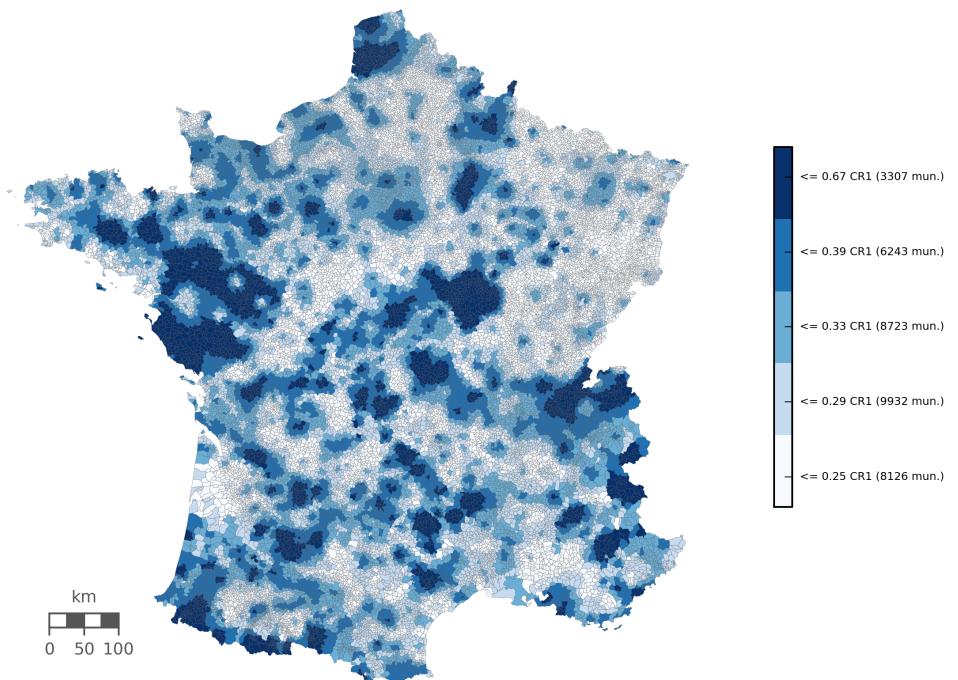
avail\_surf by municipality



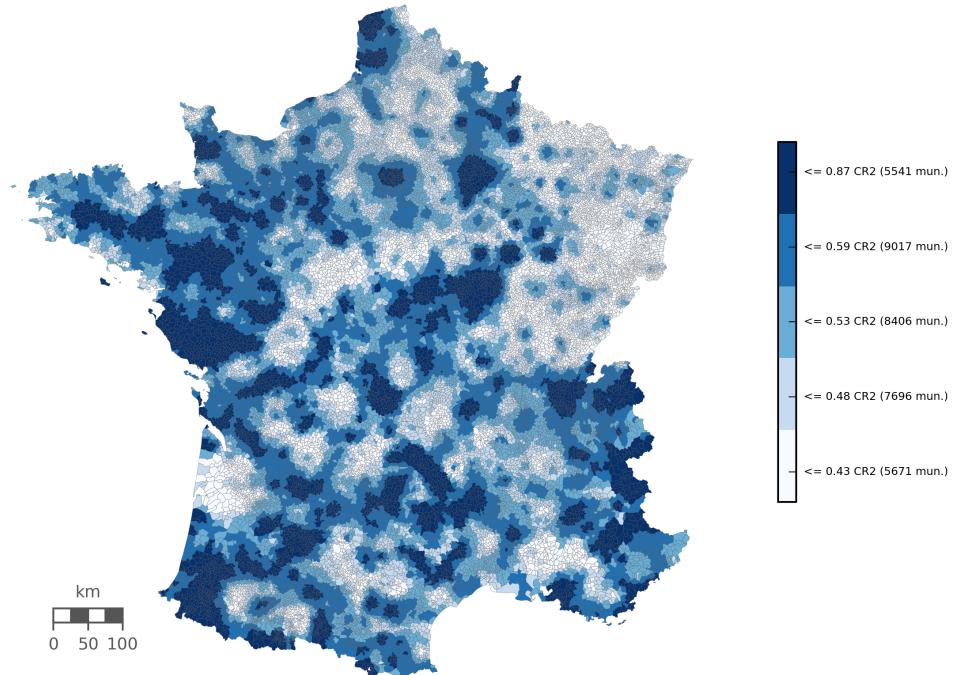
hh by municipality



CR1 by municipality



CR2 by municipality



## 6 Markets

Definition of market based on administrative limits.

### 6.1 Municipalities ("Communes")

There are 36,208 municipalities in Metropolitan France, with a total population of 62.5 million inhabitants (Census 2010). Only 4,864 municipalities have a grocery store (hard discount or supermarket with surface above  $400m^2$ ). This leaves 28.7% of the population living in municipalities devoid of grocery store.

Table 12: Top 20 "Aires urbaines" by population

Area Name	Pop (th)	Size (th km <sup>2</sup> )	Pop density	Nb GS	Pop (th) by Nb GS	Cum GS Surf (th m <sup>2</sup> )	Pop by GS m <sup>2</sup>
Paris	2,244	105	21,289	459	4.89	363	6.18
Marseille	851	241	3,536	118	7.21	204	4.17
Lyon	484	48	10,118	70	6.92	81	5.98
Toulouse	442	118	3,735	47	9.40	85	5.21
Nice	343	72	4,773	55	6.24	81	4.22
Nantes	285	65	4,371	32	8.91	66	4.29
Strasbourg	272	78	3,473	44	6.18	59	4.58
Montpellier	257	57	4,524	30	8.58	57	4.53
Bordeaux	239	49	4,845	28	8.54	63	3.80
Lille	228	35	6,533	32	7.11	59	3.88
Rennes	207	50	4,111	26	7.97	53	3.92
Reims	180	47	3,838	30	6.00	54	3.35
Le Havre	175	47	3,738	24	7.31	44	3.96
Saint-Étienne	171	80	2,142	23	7.45	40	4.26
Toulon	165	43	3,841	23	7.15	30	5.43
Grenoble	156	18	8,585	23	6.77	24	6.58
Dijon	151	40	3,742	17	8.89	39	3.87
Angers	148	43	3,455	18	8.20	55	2.66
Villeurbanne	145	15	9,997	15	9.68	17	8.69
Le Mans	143	53	2,701	26	5.49	54	2.66

## 6.2 Areas in terms of urbanism ("Unites urbaines")

Based on residential areas (c. 2300): area with no discontinuity in housing of 200m or more and more than 2000 inhabitants.

Table 13: Top 20 "Unités urbaines" by population

Area Name	Pop (th)	Size (th km <sup>2</sup> )	Pop density	Med rev (th eur)	Nb GS	Pop (th) by Nb GS	Cum GS Surf (th m <sup>2</sup> )	Pop by GS m <sup>2</sup>
Paris	10,460	2,845	3,677	21.61	1,667	6.27	2,550	4.10
Marseille - Aix	1,560	1,732	901	18.38	241	6.47	453	3.44
Lyon	1,551	1,178	1,317	20.23	214	7.25	386	4.02
Lille (fr)	1,018	443	2,301	17.50	171	5.96	342	2.98
Nice	942	744	1,266	19.64	160	5.89	260	3.62
Toulouse	880	812	1,084	21.07	138	6.37	305	2.88
Bordeaux	843	1,173	719	20.59	132	6.39	307	2.75
Nantes	591	538	1,100	20.51	81	7.30	212	2.79
Toulon	558	764	730	19.04	102	5.47	181	3.09
Douai - Lens	508	485	1,047	14.47	130	3.91	214	2.38
Grenoble	497	512	970	20.38	74	6.72	143	3.47
Rouen	464	453	1,023	18.46	89	5.21	176	2.63
Strasbourg (fr)	450	240	1,873	18.53	75	6.00	130	3.45
Avignon	442	1,369	323	17.01	96	4.61	172	2.57
Montpellier	391	310	1,261	18.80	63	6.21	145	2.69
Saint-Étienne	371	419	887	17.02	59	6.29	122	3.05
Béthune	353	752	469	16.11	94	3.75	137	2.58
Tours	346	664	521	19.48	64	5.41	142	2.43
Valenciennes (fr)	335	440	761	14.25	78	4.29	125	2.69
Rennes	311	284	1,092	20.62	47	6.61	117	2.65

### 6.3 Areas in terms of employment ("Aires urbaines")

Based on employment (c. 700): a pole with at least 10,000 jobs and each municipality in the pole must have at least c.40% of its occupied inhabitants working in the pole or in municipalities attracted by the pole.

Table 14: Top 20 "Aires urbaines" by population

Area Name	Pop (th)	Size (th km <sup>2</sup> )	Pop density	Med rev (th eur)	Nb GS	Pop (th) by Nb GS	Cum GS Surf (th m <sup>2</sup> )	Pop by GS m <sup>2</sup>
Paris	12,223	17,174	712	21.76	1,973	6.20	3,141	3.89
Lyon	2,166	6,019	360	20.09	299	7.24	533	4.06
Marseille - Aix	1,718	3,174	541	18.76	267	6.44	484	3.55
Toulouse	1,232	5,381	229	20.73	208	5.92	408	3.02
Lille (fr)	1,158	926	1,251	18.08	197	5.88	379	3.06
Bordeaux	1,128	5,613	201	20.13	190	5.94	404	2.79
Nice	1,001	2,585	387	19.64	165	6.07	267	3.75
Nantes	873	3,302	264	19.93	119	7.34	291	3.00
Strasbourg (fr)	761	2,198	346	20.07	140	5.44	248	3.07
Grenoble	670	2,621	255	20.69	97	6.90	179	3.75
Rennes	672	3,747	179	19.84	109	6.16	223	3.02
Rouen	653	2,367	276	19.07	115	5.68	218	3.00
Toulon	607	1,196	508	19.09	112	5.42	196	3.10
Douai - Lens	543	679	800	14.77	134	4.05	217	2.50
Montpellier	549	1,673	328	19.18	81	6.78	173	3.17
Avignon	511	2,083	245	17.28	104	4.92	179	2.85
Saint-Étienne	509	1,689	301	17.69	77	6.61	150	3.39
Tours	477	3,184	150	19.44	84	5.68	172	2.77
Clermont-Fer.	464	2,420	192	19.76	83	5.59	162	2.87
Nancy	435	2,367	184	19.62	79	5.51	152	2.85

## A "Drive-through"

Table 15: Drive: Surface in  $m^2$  by type

	#Total	#Avail.	Min	Q05	Med	Avg	Q95	Max	Cum
Drive in	2,046	247	10	54	1,500	1,395	2,500	3,900	344,576
Drive	435	435	100	555	1,800	1,801	3,000	7,500	783,614
All	2,481	682	10	252	1,600	1,654	2,897	7,500	1,128,190