

# Data of the environment in Catalonia



2014



Generalitat de Catalunya  
**Ministry of Territory  
and Sustainability**

#### Sources:

Ministry of Territory and Sustainability.

Secretariat for the Environment and Sustainability

Catalan Water Agency (ACA)

Waste Agency of Catalonia (ARC)

Meteorological Service of Catalonia

Ministry of Agriculture, Livestock, Fisheries, Food and Natural Environment

Ministry of Governance and Institutional Relations Muncat

Statistical Institute of Catalonia

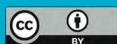
Forest Ownership Centre

The data are from 31 December of the year indicated.

Management and coordination

Subdirectorate-General for Environmental Information and Education

Environmental Information Service



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## 2014

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## 1. General data of environmental interest

### Grouping of municipalities by population intervals 2013

Intervals (inhabitants)	Number of municipalities		Town	
	Partial	Accumulated%	Partial	Accumulated%
0-1,000	485	51.2	196,003	2.6
1,001-5,000	251	77.7	584,978	10.3
5,001-10,000	90	87.2	630,328	18.7
10,001-20,000	57	93.2	812,710	29.4
20,001-50,000	41	97.6	1,265,372	46.2
50,001-100,000	13	98.9	931,697	58.5
més de 100,000	10	100.0	3,132,562	100.0
<b>Total</b>	<b>947</b>		<b>7,553,650</b>	

Source: Ministry of Governance and Institutional Relations. Muncicat

### Structure of economic activity 2013

Sectors of activity	GAV <sup>1</sup>	% of the total	% variation <sup>2</sup>	Employed <sup>3</sup> (thousands)	% of the total	%inter-annual variation
Agriculture	2,395	1.3	6.5	46.9	1.6	-5.1
Industry and energy	38,414	20.6	1.9	536.4	17.9	-11.5
Construction	13,766	7.4	-6.7	186.8	6.2	7.2
Services	131,943	70.7	-0.3	2,228.7	74.3	46.1
<b>Total</b>	<b>186,518</b>	<b>100,0</b>		<b>2,998,8</b>	<b>100,0</b>	<b>36,7</b>

<sup>1</sup> In millions of current euros.

<sup>2</sup> Variation rate in volume

<sup>3</sup> Source: Idescat, based on data from the Active Population Survey (INE). Fourth quarter of 2013. Note: The results in this table show economic activity classified according to the new Catalan Classification of Economic Activities 2009 (CCEA-2009).

Source: Statistical Institute of Catalonia

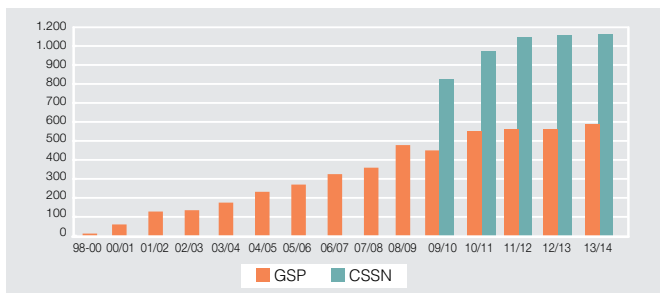
### Number of vehicles (thousands of vehicles)

Type of vehicle	2009	2010	2011	2012	2013
Motorbikes	645.5	666.7	685.6	696.8	706.1
Cars	3,346.6	3,355.7	3,368.1	3,359.7	3,326.9
Buses, lorries and other	1,001.9	991.6	956.2	968.9	950.7
<b>Total</b>	<b>4,994.0</b>	<b>5,014.0</b>	<b>5,009.9</b>	<b>5,025.4</b>	<b>4,983.7</b>
<b>Vehicles/1,000 inhabitants<sup>(1)</sup></b>	<b>664.8</b>	<b>667.4</b>	<b>664.0</b>	<b>659.8</b>	<b>659.8</b>

<sup>1</sup> Official population figures for each period.

Source: Statistical Institute of Catalonia (INE)

### Education centres that belong to the Green Schools Programme



In 2009, the Catalan Schools for Sustainability Network (XESC) was created.

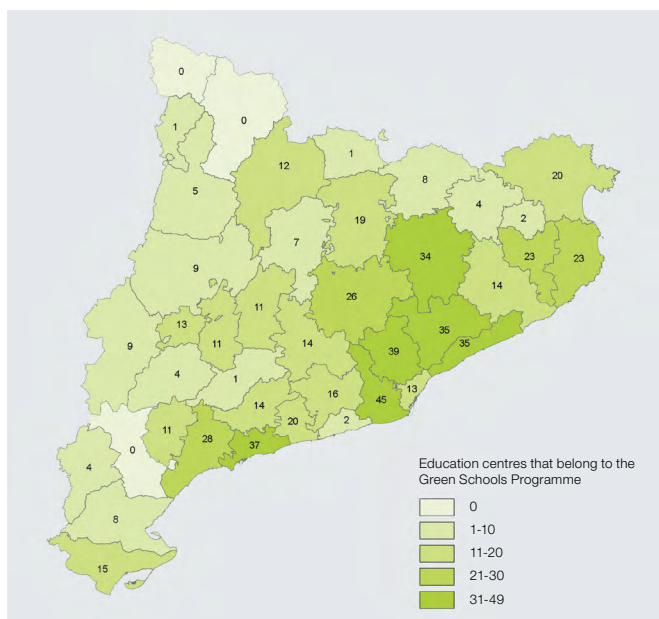
This network includes Green Schools and local networks that promote education programmes for sustainability, aimed at education centres in Catalonia.

GSP: Green Schools Programme

CSSN: Catalan Schools for Sustainability Network

Source: Environmental Education Service

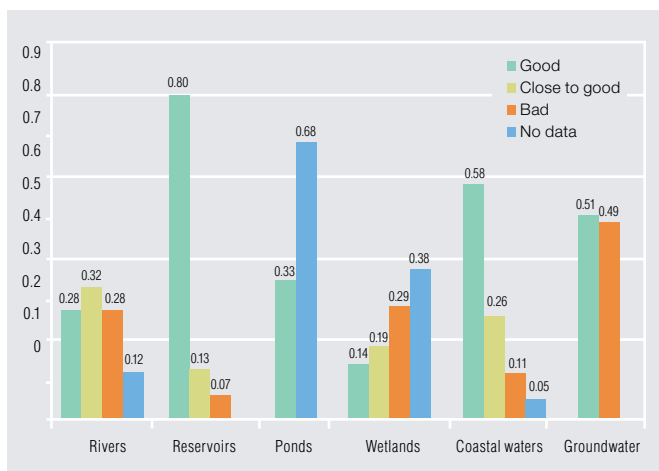
## Regional distribution of education centres that belong to the Green Schools Programme. 2013-2014



Source: Environmental Education Service

## 2. Water

### Status of water bodies. First cycle of the monitoring and control programme (2007-2012)



Note: The status 'close to good' in the general analysis of the status of water bodies means that only some quality factors, from the bottom of the hierarchy, are slightly outside the accepted limits. Although this is not a completely 'good' status, it can be considered very close to it.

**Overall output of wastewater treatment plants in service\***

	2009	2010	2011	2012	2013
Number of treatment plants in service	368	389	414	439	455
Number of treatment plants analysed	363	378	368	411	430
Treated flow (1000 m3/day) <sup>1</sup>	18,751	1,935	1,917	1,771.6	1,788.2
Overall average efficiency of SM removal per month (%)	89	89	95	93	93
Overall average efficiency of BOD <sub>5</sub> removal (%)	92	92	95	96	94
Overall average efficiency of COD <sub>5</sub> removal (%)	91	91	91	92	91

<sup>1</sup> In thousands

\* Currently, over 95% of the population of Catalonia is connected to urban wastewater treatment plants.

Source: Catalan Water Agency (ACA)

**Generation, treatment and destination of sludge generated in wastewater treatment plants**

Tonnes

Sludge generated <sup>1</sup>	2009	2010	2011	2012	2013
El Besòs plant	144,951	144,628	136,862	134,495	133,606
El Prat plant	53,821	55,146	52,831	56,193	53,475
Other plants	349,451	335,645	347,473	344,648	340,843
<b>TOTAL GENERATED</b>	<b>548,223</b>	<b>535,419</b>	<b>537,166</b>	<b>535,335</b>	<b>527,924</b>

<sup>1</sup> Fresh matter

Tonnes

Sludge treatment	2009	2010	2011	2012	2013
Composting <sup>1</sup>	37,464	42,278	39,166	40,057	24,525
External composting	219,573	136,248	124,147	115,272	170,125
Composting	257,037	178,526	163,313	155,329	194,651
Thermal drying	146,142	233,053	240,422	226,542	164,266
Other treatments*	7,108	3,981	12,369	16,674	20,916
Digestion with no post-treatment	124,339	115,193	120,658	136,545	146,803
<b>TOTAL SLUDGE TREATED</b>	<b>534,626</b>	<b>530,753</b>	<b>536,762</b>	<b>535,090</b>	<b>526,635</b>

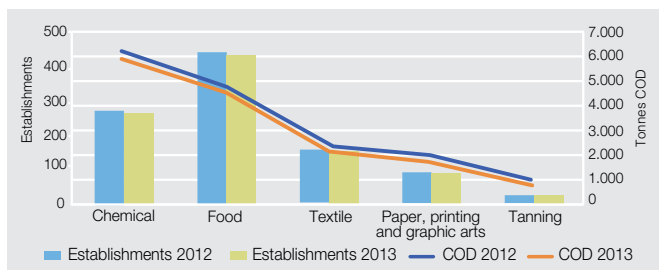
<sup>1</sup> Catalan Water Agency (ACA)

\*Composting of contaminated material, hazardous treatment, etc.

Tonnes

Sludge disposed of by destination	2009	2010	2011	2012	2013
Use on soil	373,037	287,157	267,462	280,849	343,794
Restoration of quarries		171	3,138	3,853	-
Controlled landfill	10,979	5,609	3,065	10,759	18,159
Other		-	-	-	-
Energy recovery	26,823	41,322	58,402	46,658	27,045
<b>TOTAL SLUDGE ELIMINATED</b>	<b>410,839</b>	<b>334,259</b>	<b>332,067</b>	<b>342,118</b>	<b>388,999</b>

Source: Catalan Water Agency (ACA)

**Pollutant load discharged by establishments (COD\* per year), by production sector<sup>1</sup>, to river basin or to WWTP<sup>2</sup>**

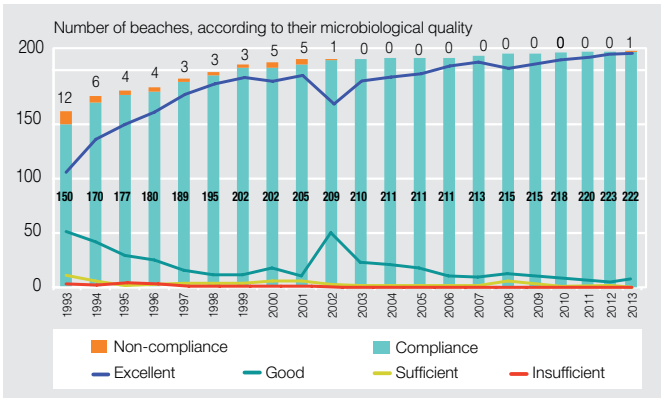
\* Chemical oxygen demand

<sup>2</sup>Linked to the table on the next page

1	2012	2013	Number of establishments
Other production sectors	5,270	3,982	1,029
Discharge to river basin (t/COD)	6,059	4,710	665
Discharge to WWTP (t/COD)	14,075	13,313	1,270

<sup>2</sup> According to the Declaration on the Use and Pollution of Water (DUCA): sections B (05.02) and C, D and E of CCEA: if 7,000 m<sup>3</sup>/year are exceeded, if pollution exceeds the parameters indicated in the regulations, if non-discharged waters represent over 50% of the total consumption or if the establishment has its own treatment system, according to Decree 103/2000, of 6 March, amended by Decree 47/2005, of 22 March. Source: Catalan Water Agency (ACA)

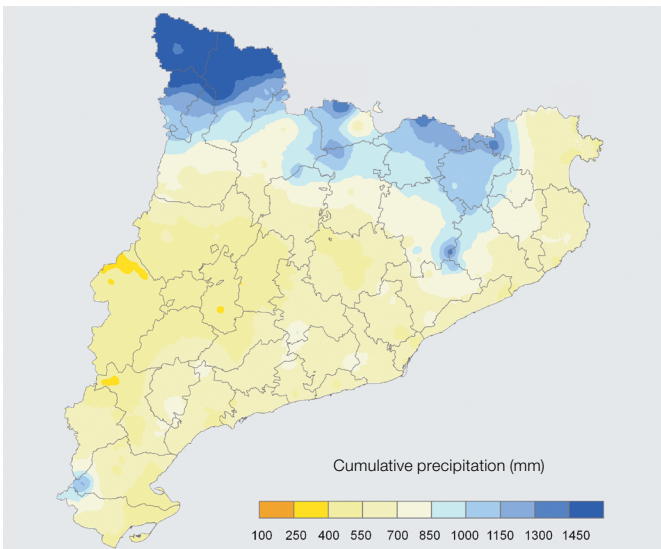
### Degree of compliance with Directive 2006/7/EC: beaches<sup>1</sup>



<sup>1</sup> According to European Directive 2006/7/EC, from 2008 the category of 'sufficient' is included, and the categories of 'poor' and 'very poor' are replaced by insufficient. Source: Catalan Water Agency (ACA)

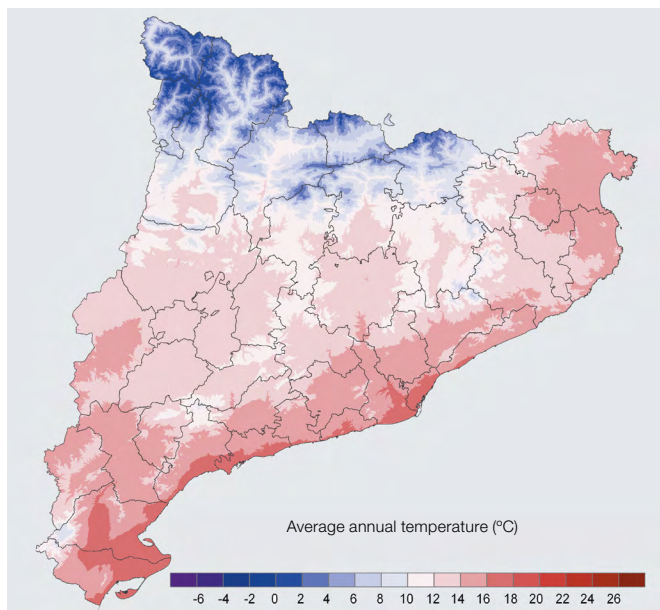
## 3. Atmospheric environment

### Map of precipitation in mm. 2013



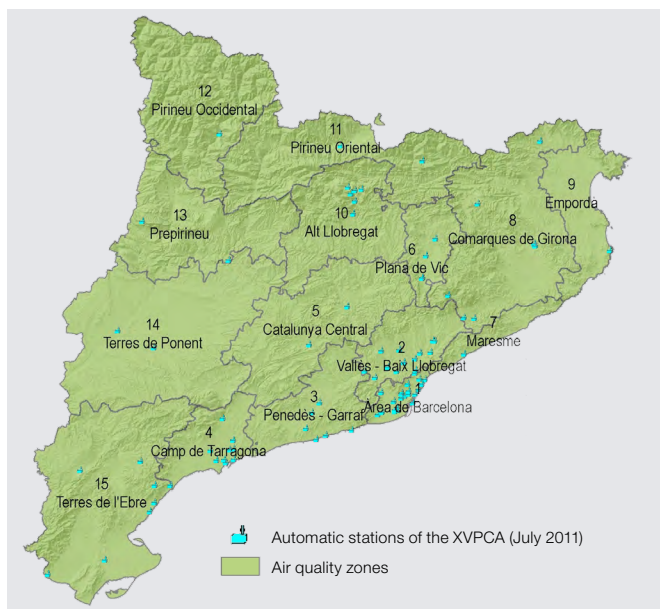
Source: Meteorological Service of Catalonia

### Map of cumulative average temperature in C°. 2013



Source: Meteorological Service of Catalonia

### Map of the 15 areas of air quality in Catalonia and the XVPCA stations\*

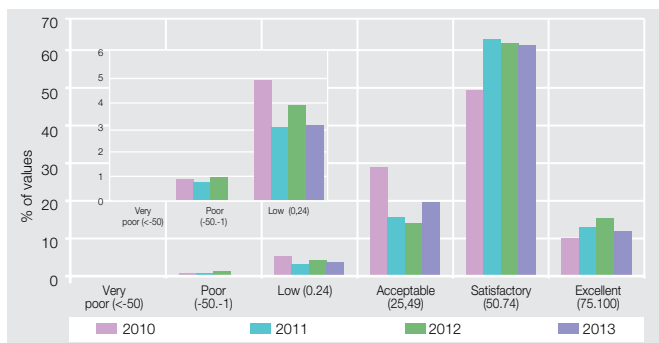


\* Air Pollution Monitoring and Forecasting Network

Source: Air Monitoring and Surveillance Service



## Distribution of ICQA<sup>1</sup> values, according to air quality



<sup>1</sup> ICQA: Catalan Air Quality Index

The ICQA is calculated using the following emission levels: carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulphur dioxide (SO<sub>2</sub>), ozone (O<sub>3</sub>) and suspended particles (PM<sub>10</sub> and TSP).

The result is a value for the measuring station and day that represents different levels of quality.

Source: Air Monitoring and Surveillance Service

	2009	2010	2011	2012	2013
<b>Percentage of compliance with current regulations on NO<sub>2</sub></b>					
% of stations that comply with the ALV of NO <sub>2</sub> in AQZ1 and AQZ2	72	32	57	57	70
% of stations that comply with the ALV of NO <sub>2</sub> in the remaining zones (AQZ3 to AQZ15)	100	100	100	100	100
<b>Percentage of compliance with current regulations on PM<sub>10</sub></b>					
% of XVPKA stations that exceed the annual PM <sub>10</sub> LV <sup>3</sup>	11	0	0	0	0
% of XVPKA stations that exceed the daily PM <sub>10</sub> LV	38	4	10	10	3
<b>Number of hours with exceedance of threshold values, according to current regulations on O<sub>3</sub></b>					
Number of hours with exceedance of the information threshold for O <sub>3</sub>	60	125	34	71	81
No. of days with exceedance of the information threshold for O <sub>3</sub>	22	28	14	21	19

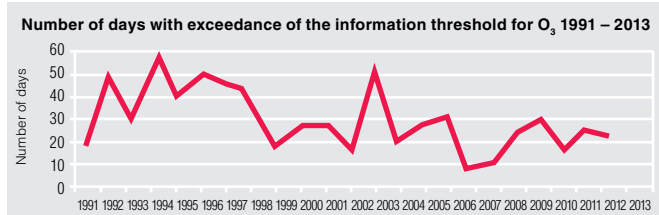
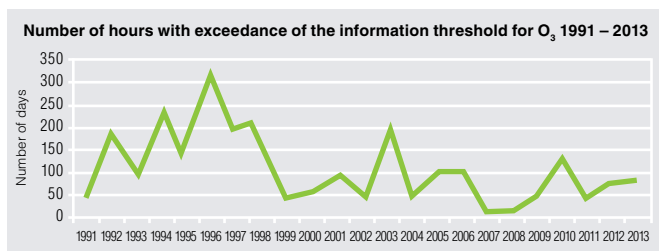
<sup>1</sup> Annual limit value

<sup>2</sup> Air quality zone

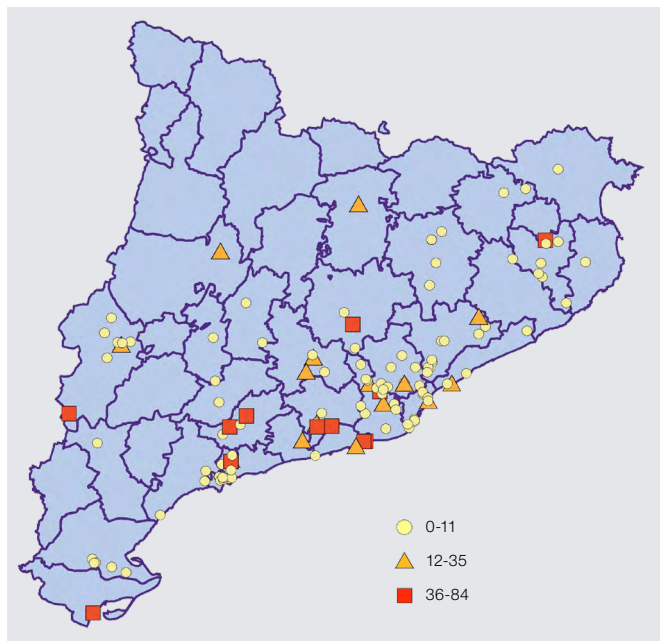
<sup>3</sup> Limit value

Source: Air Monitoring and Surveillance Service

## Graphs of the number of hours and days with exceedance of the information threshold for O<sub>3</sub>

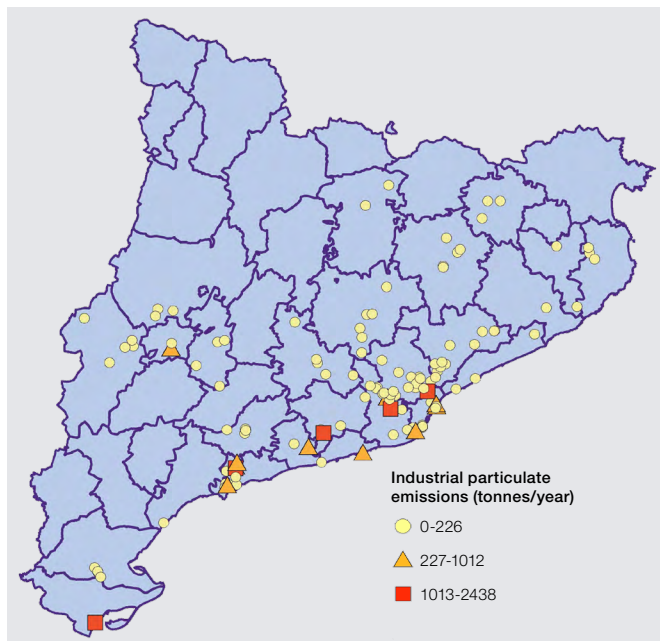


Source: Air Monitoring and Surveillance Service

**Total particulate suspended (TPS). Year 2011\***

\*Latest data available

Source: Air Monitoring and Surveillance Service

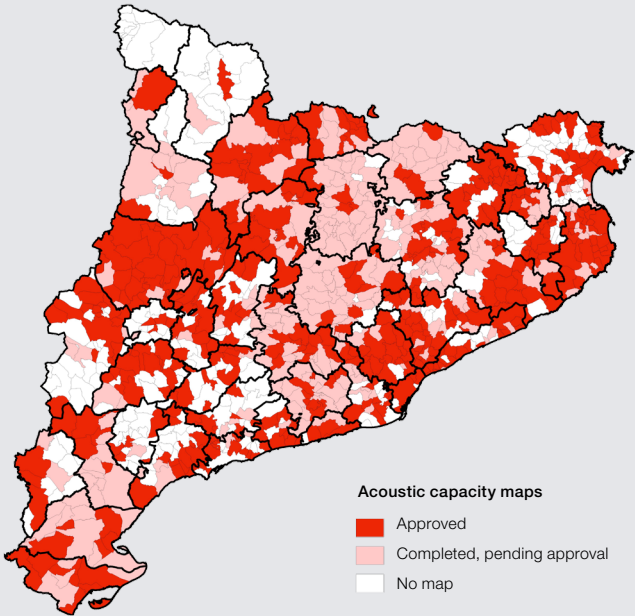
**Industrial NOx emissions. Year 2011\***

\*Latest data available

Source: Air Monitoring and Surveillance Service

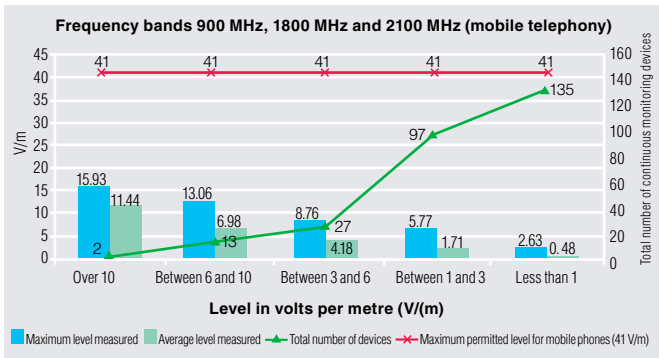
### Status of municipalities, regarding acoustic capacity maps. 2013

Municipalities that have passed on approval of the acoustic capacity maps to the Directorate-General for Environmental Quality or published in the Official Journal of the Government of Catalonia (DOGC)

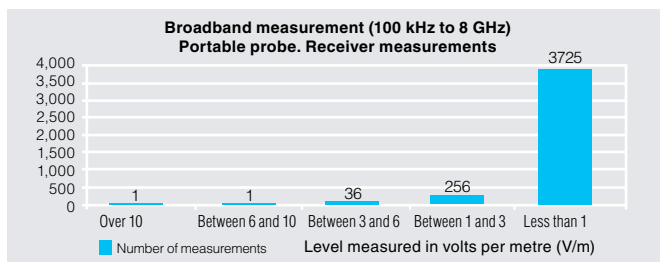


Source: Light and Noise Pollution Prevention Service

### Radiofrequency electromagnetic fields in Catalonia. 2013



Source: Light and Noise Pollution Prevention Service and Telecommunications and Information Technologies Centre



Source: Light and Noise Pollution Prevention Service and Telecommunications and Information Technologies Centre

## 4. Biodiversity and natural environment

### Natural and semi-natural CORINE habitats in Catalonia and the threat level.

Habitats grouped by environments	Number of habitats	Threatened	Percentage
1. Coastal and saline environment	60	17	28,3
2. Inland waters	62	13	21,0
3. Shrubs and herbaceous vegetation	216	36	16,7
4. Forests	111	32	28,8
5. Marshes and wetlands	39	17	43,6
6. Rocks, scree and glaciers	35	7	20,0
<b>Total</b>	<b>523</b>	<b>122</b>	<b>23,3</b>

Source: CARRERAS, J. and FERRÉ, A. 2008; revised in 2012. Report assessing the threat and conservation interest level of different types of habitats in Catalonia.

Methodological proposal and assessments. Government of Catalonia, Ministry of Territory and Sustainability. University of Barcelona. Unpublished.

### Diversity of species in Catalonia and Europe. Data from several years\*

	Catalonia				Europe	
	Number of species		%		Number of species	
	Known	Likely minimum	Endemic	Threatened	Known	Likely minimum
Freshwater algae	2,163	4,000	-	-	-	-
Benthic marine algae	483	530	0	-	-	-
Planktonic marine algae	574	700	-	-	-	-
Fungi	5,681	>10,000	0	-	-	-
Fungi	1,500	1,800	-	-	3,500	4,300
Bryophytes	802	900	0	5.1	1,687	1,800
Vascular plants	3,600	3,700	3.5	5.5	12,500	14,000
Non-arthropod invertebrates	2,988 <sup>1</sup>	5,000	-	-	-	-
Molluscs (inland waters)	312 <sup>2</sup>	-	8	-	3,560	-
Arthropods	12,562 <sup>3</sup>	-	-	-	90,190	140,000
Fish (inland waters)	41 <sup>4</sup>	-	0	83 <sup>5</sup>	211	-
Fish (marine)	456	-	-	-	-	-
Amphibians	16	-	6	19	85	-
Reptiles (inland)	34	-	6	29	119	-
Reptiles (inland)						
Reptiles (marine)	3	-	-	100	5	-
Birds	414	-	0	18-20	761	-
Mammals (inland)	95	-	0	15	231	-
Mammals (marine)	14	-	0	20	50	-
<b>TOTAL</b>	<b>31,205</b>				<b>113,399</b>	

<sup>1</sup> Data from the Catalan Biodiversity Database (BDBC). Figures are increasing annually, and it is predicted that there may be 5,000 species of non-arthropod invertebrates in the future.

<sup>2</sup> Included in non-arthropod invertebrates.

<sup>3</sup> Data from the Catalan Biodiversity Database (BDBC). Figures are increasing annually, and it is predicted that there may be around 15,000 species of arthropods in the future. The main group is that of hexapods (insects, Diplura, Collembola and Protura), with 11,148 species.

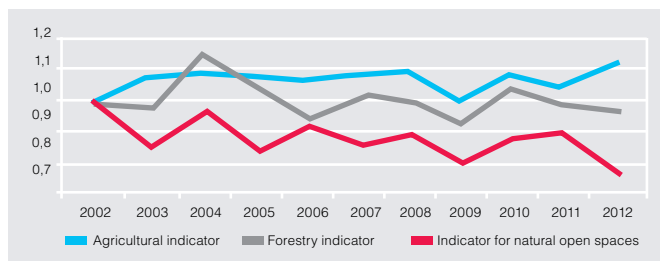
<sup>4</sup> 24 autochthonous and 17 introduced.

<sup>5</sup> Percentage of autochthonous threatened species.

\* Latest data available

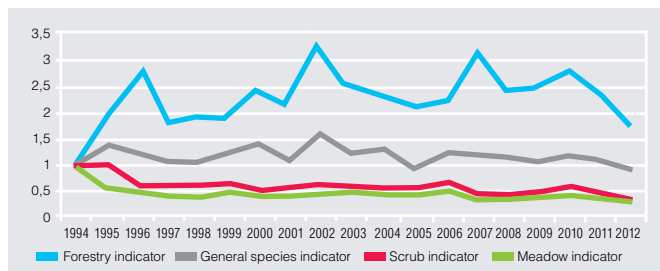
Source: Natural Environment Planning Service

### Indicators for common birds



Source: Monitoring Common Birds of Catalonia (SOCC) project, Catalan Ornithological Institute (ICO).

### Indicators for butterflies



Source: Catalan Butterfly Monitoring Scheme (CBMS), Granollers Museum of Natural Sciences and the Ministry of Territory and Sustainability.

### Current situation of the Plan for Areas of Natural Interest (PEIN) and the Natura 2000 network

	Situation as at 31.12.2013			
	Number of areas	Surface area		
		Hectares Land	Hectares Sea	Percentage compared to total
PEIN	164	987,890	77,893	30.77
ENPE <sup>(1)</sup>	86	292,543	5,665	
Natural Park	13	243,205	5,665	
Natural Site of National Interest	7	12,039		
Undeveloped Nature Reserve	6	1,868	20	
National Park	1	13,900		
RNFS	13	2,059		
Natura 2000 network	8 ecological types <sup>(2)</sup>	977,230	85,141	30.44 <sup>(3)</sup>

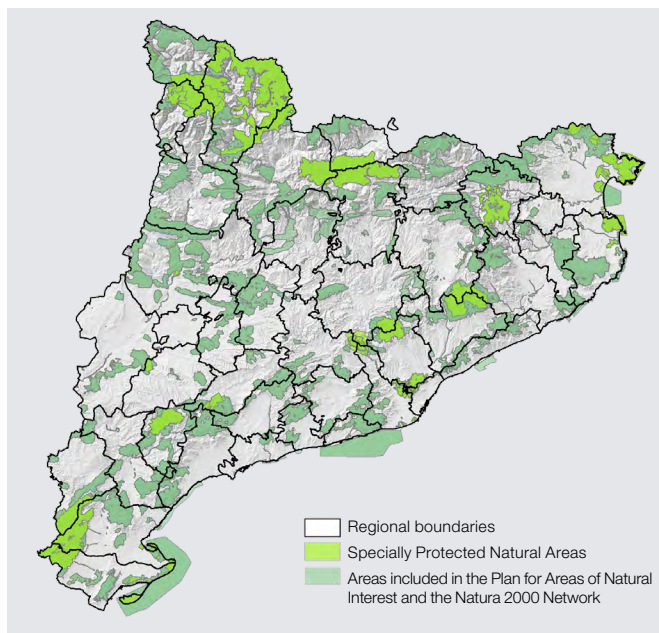
<sup>(1)</sup> Includes the partial nature reserves and the peripheral protection zones. All the ENPE (Specially Protected Natural Areas) are included within the PEIN. <sup>(2)</sup> Areas of the Pyrenees, the Pre-Pyrenees, the agricultural plain, inland mountains, inland waters, coastal mountains, coastal wetlands and marine areas. <sup>(3)</sup> Total land.

ENPE: Specially Protected Natural Area

RNFS: Declared wildlife reserves, pending recognition for the purposes of the definitive delimitation of the areas.

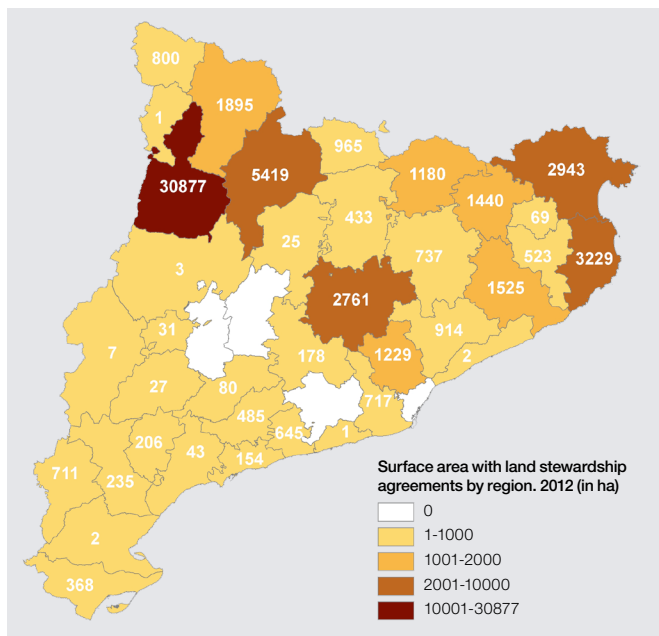
Source: Natural Environment Planning Service

**Specially Protected Natural Areas, Plan for Areas of Natural Interest and Natura 2000 network.**



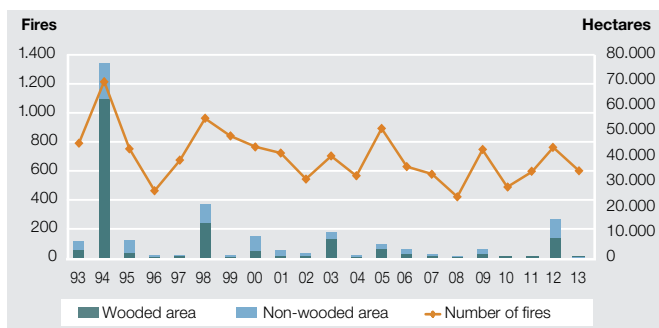
Source: Natural Environment Planning Service

### Map of surface area of land stewardship agreements



Source: Natural Environment Planning Service

## Evolution of number of fires and affected area



Source: Ministry of Agriculture, Livestock, Fisheries, Food and Natural Environment. Directorate-General for the Natural Environment and Biodiversity. Forest Fire Prevention Service

## Forest management of publicly owned forests\*

Year	Number of publicly owned forests managed per year	Publicly managed area per year (ha)
2001	24	7,269.69
2002	4	11,126.94
2003	29	18,335.36
2004	76	51,703.46
2005	126	64,493.52
2006	32	14,397.12
2007	56	38,549.89
2008	64	47,001.88
2009	71	34,762.29
2010	30	17,286.87
2011	36	12,429.60
2012	73	24,919.12
<b>2013</b>	<b>24</b>	<b>10,296.00</b>

\*The data are not cumulative.

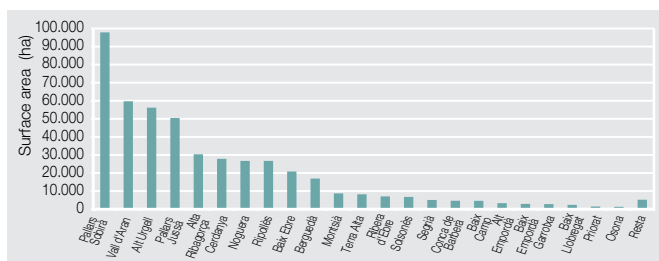
Source: Ministry of Agriculture, Livestock, Fisheries, Food and Natural Environment. Directorate-General for the Natural Environment and Biodiversity. Forestry Management Service.

<b>Existing management - Year 2013</b>	<b>563</b>	<b>322,335.45</b>
Forests with PEFC certification*	52	29,825.99

\*Programme for Endorsement of Forest Certification

\*Source: Ministry of Agriculture, Livestock, Fisheries, Food and Natural Environment. Directorate-General for the Natural Environment and Biodiversity. Forestry Management Service.

## Total publicly owned forest surface area by region. Year 2013



Source: Ministry of Agriculture, Livestock, Fisheries, Food and Natural Environment. Directorate-General for the Natural Environment and Biodiversity. Forestry Management Service.

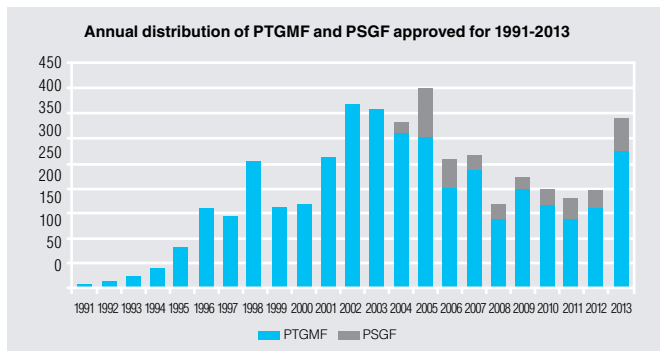
**Forest management on private estates (Technical Forest Management and Improvement Plans (PTGMF), and Basic Forest Management Plans (PSGF)\***

Year	PTGMF in effect	Managed area (ha) with effective PTGMF	Number of PTGMF approved by year	Area managed (ha) with PTGMF per year
2000	1,047	164,113.7	171	28,925.1
2001	1,308	205,511.2	273	43,324.9
2002	1,679	259,989.2	377	56,336.6
2003	2,033	309,023.6	364	50,201.5
2004	2,312	348,520.5	312	44,875.7
2005	2,550	379,111.5	308	37,701.0
2006	2,601	389,527.2	203	30,433.9
2007	2,733	405,641.0	242	34,058.5
2008	2,787	413,248.3	150	20,052.4
2009	2,833	419,339.70	207	28,293.3
2010	2,893	424,458.80	173	27,892.7
2011	2,884	424,327.00	148	23,067
2012	2,893	428,407.57	160	24,274
<b>2013</b>	<b>3,369</b>	<b>449,640</b>	<b>285</b>	<b>43,412</b>

Year	PSGF in effect	Area managed (ha) with PSGF in effect	Number of PSGF approved per year	Area managed (ha) with PSGF per year
2004	18	255.1	18	255.1
2005	113	1,322.0	95	1,066.9
2006	180	2,061.6	67	739.6
2007	199	2,323.7	19	262.1
2008	218	2,567.03	19	243.3
2009	231	2,761.50	14	218.8
2010	260	3,154.20	29	392.7
2011	290	3,452.00	31	320
2012	331	3,941.40	41	496
<b>2013</b>	<b>395</b>	<b>4,743</b>	<b>64</b>	<b>802</b>
<b>Total PTGMF and PSGF 2013</b>	<b>3,764</b>	<b>454,383.0</b>	<b>349</b>	<b>44,214.4</b>

\* The data are not cumulative; they show annual totals.

Source: Forest Ownership Centre



Source: Forest Ownership Centre



## 5. Climate change

### Total GHG emissions in Catalonia\*

ktCO<sub>2</sub> equivalent<sup>2</sup>

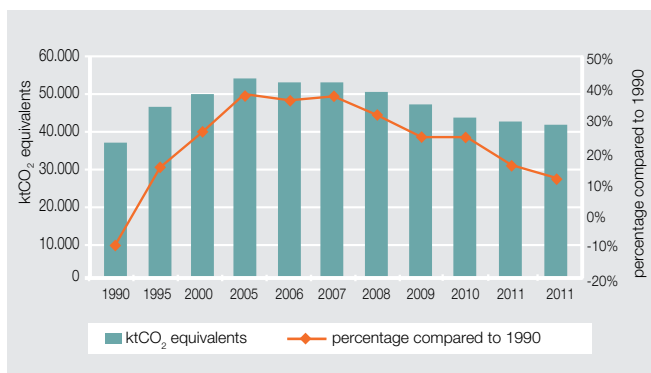
Sectors	1990	1995	2000	2005	2010	2011	2012
Energy processing	26,078	33,974	34,604	43,460	36,427	34,122	32,631
Industrial processes (non-energy)	4,930	7,407	9,616	5,917	4,169	3,800	3,589
Solvents and other products	271	287	330	321	280	253	227
Agriculture	3,841	3,854	4,290	3,925	3,894	3,983	4,107
Waste processing and disposal	1,432	1,815	2,202	2,281	2,643	2,627	2,586
<b>Total</b>	<b>36,551</b>	<b>47,337</b>	<b>51,041</b>	<b>55,903</b>	<b>47,412</b>	<b>44,784</b>	<b>43,139</b>

\*Emissions data from an inventory of 7 IPCC sectors.

Unlike Spanish inventories, this does not take into account land-use changes and the forestry sector.

<sup>2</sup>Kt CO<sub>2</sub> eq = thousands of tonnes

### Trend of total GHG emissions in Catalonia

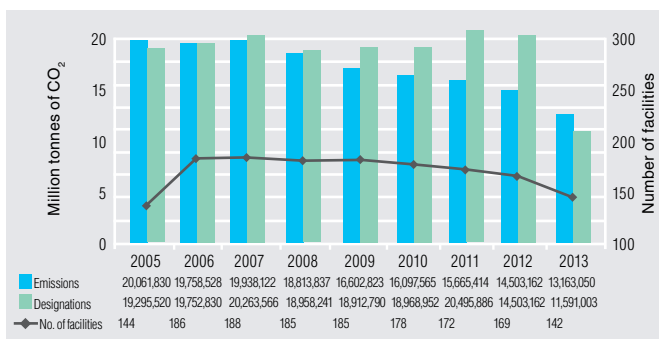


Source: Catalan Office for Climate Change

### Distribution of GHG emissions by sector, validated in 2013

Type of activity	No. facilities	Validated emissions, 2013
1a. Electrical energy <sup>1</sup>	8	2,478,202
<i>Electricity generation</i>	8	2,478,202
1b. Cogeneration	46	3,213,142
1c. Other combustion facilities	29	1,232,004
<i>Combustion sector</i>	75	4,445,146
2. Refineries	2	2,255,780
5. Cast iron/steel	1	182,617
6. Ferrous metals	1	24,898
9. Non-ferrous metals	1	25,280
10. Cement	6	2,120,116
11. Lime	4	252,174
12. Glass	7	295,208
13. Ceramics	13	71,064
16. Paper pulp	3	201,045
17. Paper and packaging board	15	238,611
19. Nitric acid <sup>2</sup>	1	15,026
23. Crude organic materials	4	118,983
24. Hydrogen and syngas	1	438,900
<i>Industrial sector</i>	59	6,239,702
<b>Totals</b>	<b>142</b>	<b>13,163,050</b>

## Emissions, designations and number of facilities 2005-2013

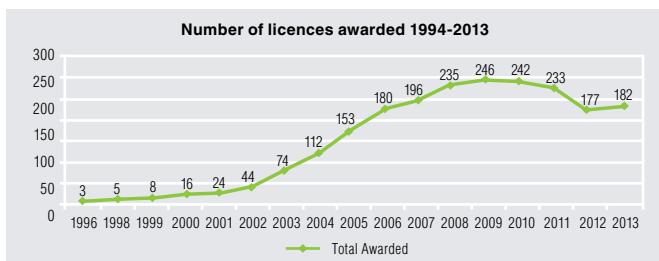


Source: Activity Monitoring and Information Service

## 5. Sustainable production and consumption

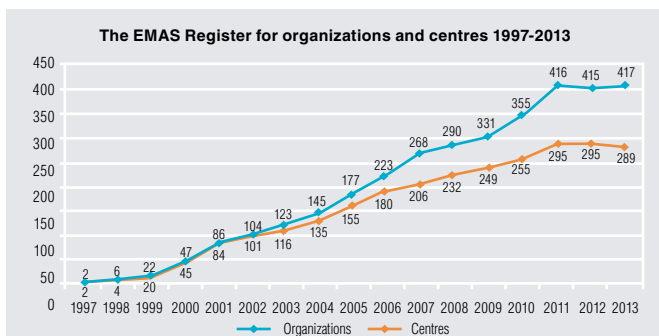
## Number of companies with voluntary environmental protection systems

Issue of licenses with the quality sign	2009	2010	2011	2012	2013
Production companies	48	50	46	50	41
Service companies	197	193	187	134	141
Number of products	1,276	1,203	1,387	825	822
Number of service establishments	218	213	189	122	141
Total number of companies awarded	246	242	233	177	182



Source: Environmental Certification Service

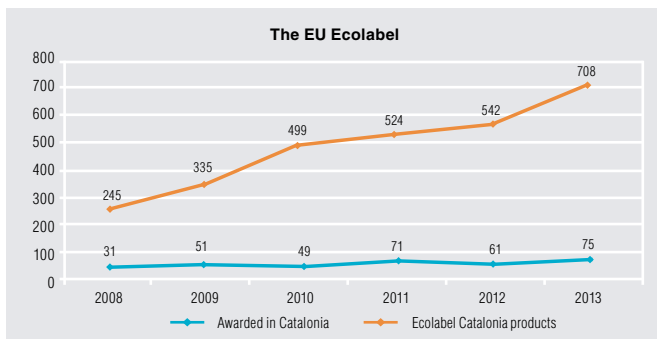
The EMAS* register	2009	2010	2011	2012	2013
Number of organizations	249	255	295	295	289
Number of centres	331	355	416	415	417



\*Eco-Management and Audit Scheme

Source: Environmental Certification Service

The European Union Ecolabel	2009	2010	2011	2012	2013
Ecolabel Catalonia	51	49	71	61	75
Ecolabel Catalonia products	335	499	524	542	708



Source: Environmental Certification Service

## 6. Environmental assessment

### Number of impact assessment statements issued <sup>1</sup>

Actions	2009	2010	2011	2012	2013
Ports	0	1	0	0	0
Linear infrastructure	26	18	3	6	5
Reservoirs and water infrastructure	5	1	1	1	2
Industrial activities	120	137	149	118	100
Changes in the use of the land	5	6	3	1	2
Impact on areas of natural interest (PEIN)	2	14	6	7	1
<b>Total</b>	<b>158</b>	<b>177</b>	<b>162</b>	<b>133</b>	<b>110</b>

<sup>1</sup> According to the date of approval by the Environmental Panel (Ponència Ambiental).

Source: Projects Service

### Number of decisions on environmental reports for plans and programmes

	2009	2010	2011	2012	2013
Partial territorial plans and territorial master plans	1	3	0	0	0
Urban master plans	12	9	1	0	0
Municipal urban development plans (POUM)	37	75	45	31	27
Changes to general urban development planning	61	40	38	25	26
Derived urban development planning	12	19	22	16	26
Mobility plans	1	3	2	7	5
Other sector plans and programmes	1	7	0	3	1
<b>Total</b>	<b>125</b>	<b>156</b>	<b>108</b>	<b>82</b>	<b>85</b>

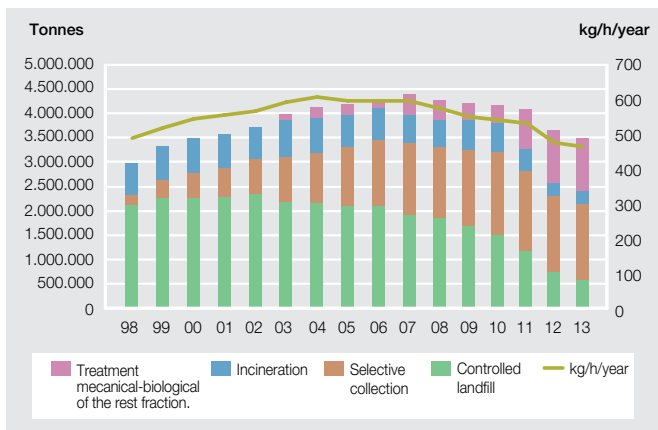
Source: Plans and Programmes Service

## 7. Waste

### Final destination of municipal waste

Municipal waste generation 2013: 3,588,822.35 tonnes

Generation coefficient (kg/h/year) 2013: 475.11



Municipal waste is considered waste from domestic activities, shops, offices or services whose nature or composition is similar to that of domestic waste.

We have used the official population data for each year, published by Idescat.

Source: Waste Agency of Catalonia (ARC)

### Selective collection 2013

Waste	Tonnes collection 2013	Tonnes collection 2012	% Total compared to MW <sup>1</sup>	Variation compared to 2012
Home or community composting	5,857.20	5,105.80	-	-
Organic fraction	373,827.85	384,136.28	10.29%	-6.71%
Pruning-gardening	102,208.58	99,178.02	2.66%	-5.21%
Paper and packaging board	262,427.50	318,020.39	7.31%	-17.53%
Glass	158,240.87	169,116.71	4.41%	-6.49%
Light packaging	127,574.39	135,289.31	3.55%	-5.76%
Bulky and wood	161,536.39	163,548.78	4.50%	-1.97%
RAEES <sup>2</sup>	17,786.28	19,996.83	0.50%	-11.28%
Scrap metal	5,337.78	6,224.32	0.15%	-14.67%
Vegetable oils	1,168.42	1,155.47	0.03%	1.35%
Textile	5,876.55	6,653.85	0.16%	-11.72%
Rubble	117,796.64	122,491.81	3.28%	-4.47%
REPQ <sup>3</sup>	2,170.73	1,828.63	0.06%	8.95%
Other selective collection	20,006.66	25,018.43	0.56%	-19.75%
<b>Total gross selective collection</b>	<b>1,361,815.84</b>	<b>1,642,059.52</b>	<b>37.95%</b>	<b>-6.77%</b>

<sup>1</sup> Municipal waste

<sup>2</sup> Register of Electronic and Electrical Equipment

<sup>3</sup> Small quantities of hazardous waste (produced by workshops and small-scale industries)

\*Official population data for 2010, published by Idescat.

Source: Waste Agency of Catalonia (ARC)

**Carbon footprint of municipal waste in Catalonia. Treatment and transport**

	2011	2012	2013
	t CO <sub>2</sub> eq/year	t CO <sub>2</sub> eq/year	t CO <sub>2</sub> eq/year
Total emissions generated	1,648,195	1,558,560	1,440,861
Total emissions avoided	-753,169	-769,167	-730,369
<b>Total carbon footprint</b>	<b>895,026</b>	<b>789,393</b>	<b>710,492</b>
	kg CO <sub>2</sub> eq/inhabitant/year	kg CO <sub>2</sub> eq/inhabitant/year	kg CO <sub>2</sub> eq/inhabitant/year
Emissions generated per inhabitant	219	206	191
Emissions avoided per inhabitant	-100	-102	-97
<b>Carbon footprint per inhabitant</b>	<b>119</b>	<b>104</b>	<b>94</b>
	kg CO <sub>2</sub> eq/tonne/year	kg CO <sub>2</sub> eq/tonne/year	kg CO <sub>2</sub> eq/tonne/year
Emissions generated per inhabitant	407	418	401
Emissions avoided per inhabitant	-186	-206	-204
<b>Carbon footprint per inhabitant</b>	<b>221</b>	<b>212</b>	<b>197</b>

CO<sub>2</sub> eq: This is a universal measure to describe how much global warming each greenhouse gas may cause. It is used to assess the environmental impacts of the emission (or to prevent the emission) of various greenhouse gases.

**Industrial waste declaration by industrial activity (CCAE 2009), according to the 2013 declaration\***

DDescription of industrial activity (CCAE 2009)	Total*	%
Food, drink and tobacco industries	921,058.78	25.4%
Metallurgy; manufacture of basic iron, steel, ferroalloy and other metal products	795,658.78	21.9%
Chemical industries, pharmaceutical products, rubber and plastic materials	558,944.96	15.4%
Paper-related industries, graphic arts and reproduction of recorded media	488,251.80	13.5%
Manufacture of machinery, computer, electrical, electronic and transport equipment	345,348.89	9.5%
Manufacture of other non-metallic mineral products	149,719.45	4.1%
Other services	97,059.59	2.7%
Textiles, footwear and hide	61,800.92	1.7%
Supply of electricity, gas, steam and air-conditioning	59,145.69	1.6%
Other < 1,5 %	151,761.76	4.2%
<b>Total</b>	<b>3,628,751</b>	<b>100</b>

\*All data are in tonnes. The data may be slightly skewed due to the use of rounded-up decimals in calculations.  
Source: Waste Agency of Catalonia (ARC)

**Types of treatment of industrial waste declared<sup>1</sup> in 2013\***

(tonnes)

Type of treatment	Hazardous	Non-hazardous	Total
Recovery <sup>2</sup>	210,888	2,652,780	2,863,669
Physicochemical treatment	97,750	51,841	149,591
Controlled disposal	54,321	507,480	561,800
Incineration	30,155	2,002	32,157
Storage	129	11,020	11,149
Insufficient management	0	1,009	1,009
Unspecified management	244	9,130	9,375
<b>Total*</b>	<b>393,488</b>	<b>3,235,262</b>	<b>3,628,751</b>

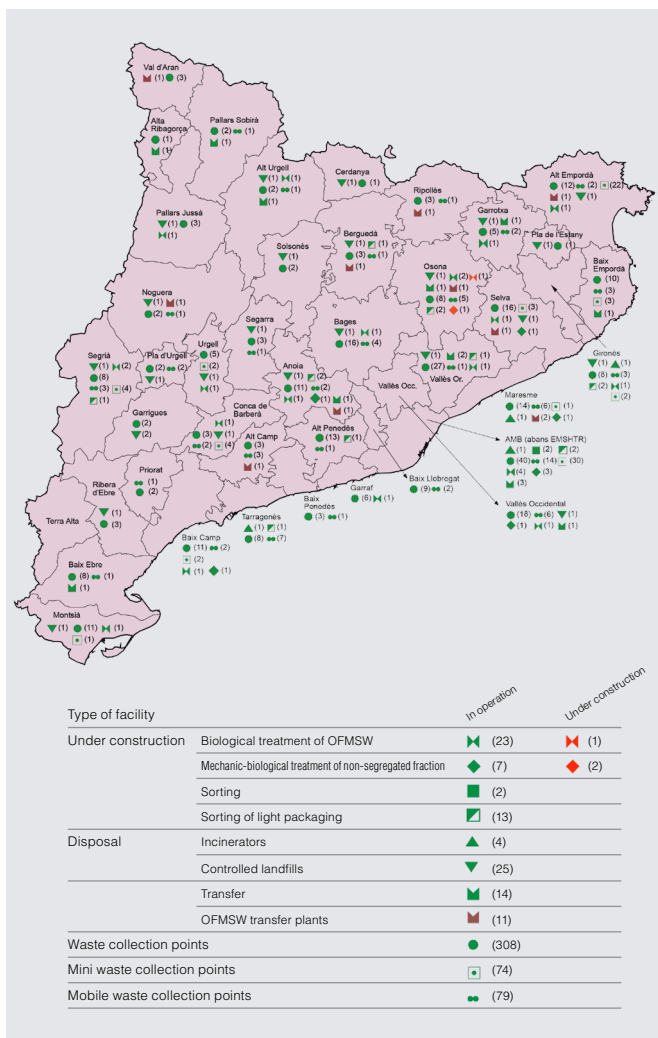
<sup>1</sup> Does not include WWTP sludge

<sup>2</sup> Includes recovery at source, by-products, external and energy

\* The data may be slightly skewed due to the use of rounded-up decimals in calculations.

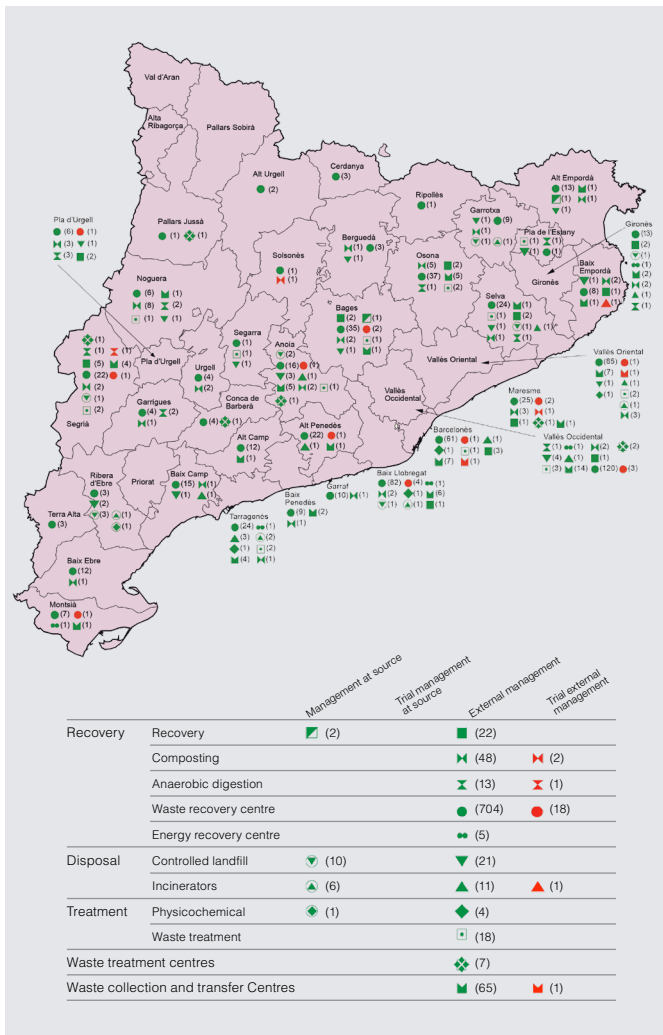
Source: Waste Agency of Catalonia (ARC)

## Facilities in operation and under construction for the management of municipal waste in Catalonia. 2013

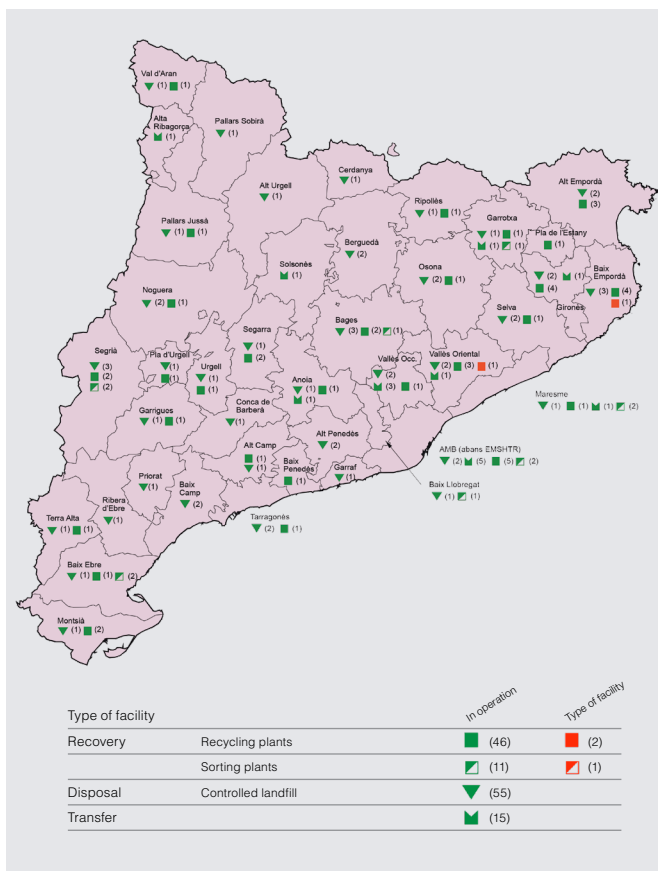


Source: Waste Agency of Catalonia (ARC)

Source: Waste Agency of Catalonia (ARC)



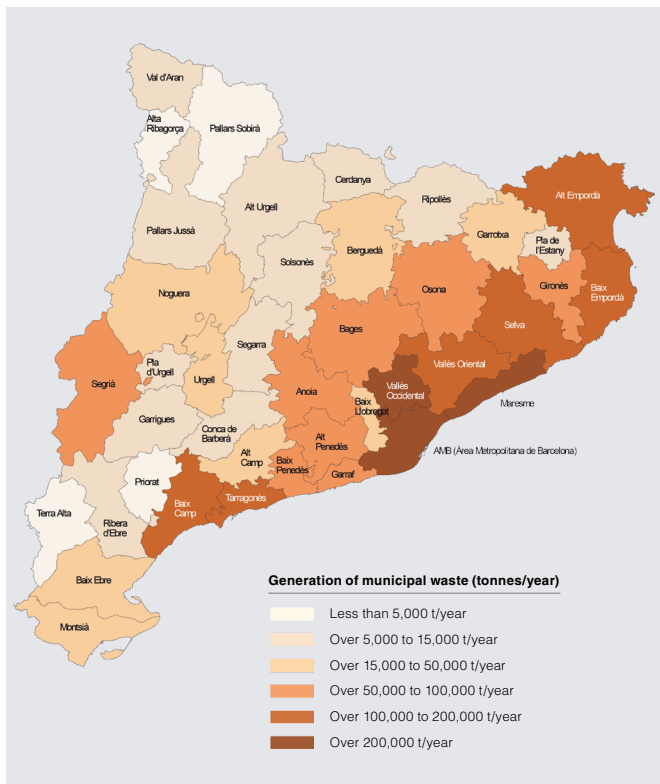
## Facilities in operation for the management of rubble and other construction waste in Catalonia. 2013



Source: Waste Agency of Catalonia (ARC)

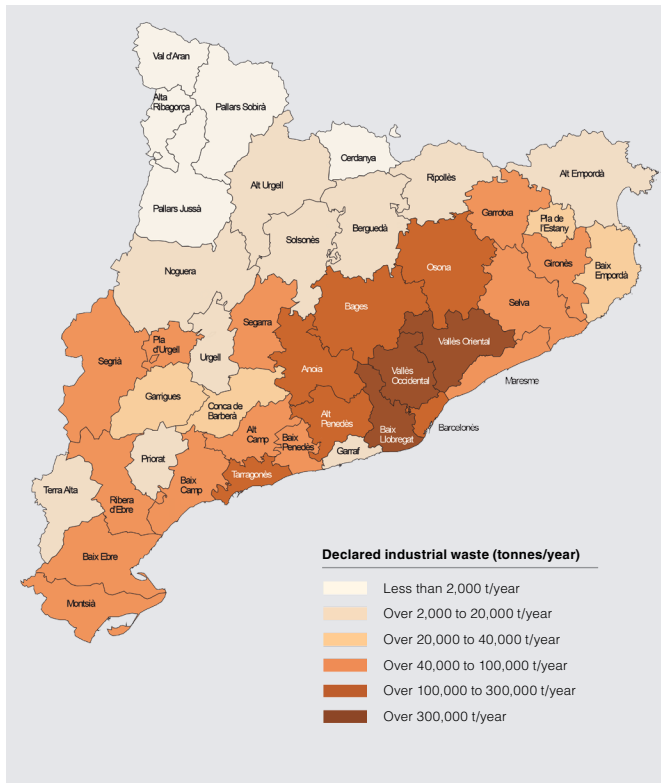


## Generation of municipal waste by region. 2013



Source: Waste Agency of Catalonia (ARC)

## Industrial waste declared by region - 2013



Source: Waste Agency of Catalonia (ARC)



<http://gencat.cat/territori>  
<http://gencat.cat/mediambient>