

# Data of the environment in Catalonia 2019



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



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## 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 and Food

Ministry of Governance and Institutional Relations

Statistical Institute of Catalonia

Forest Ownership Centre

The data are from 31 December of the year indicated

Management and coordination

Directorate-General for Environmental Policy and Nature

Environmental Information Service



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DL: B. 42384-2012



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### 1.1 Grouping of municipalities by population intervals 2018

Intervals (inhabitants)	Number of municipalities		Town	
	Partial	Accumulated %	Partial	Accumulated %
0-1,000	490	51.7	195,131	2.6
1,001-5,000	246	77.7	575,510	10.1
5,001-10,000	90	87.2	635,766	18.5
10,001-20,000	57	93.2	820,190	29.3
20,001-50,000	41	97.6	1,278,123	46.1
50,001-100,000	12	98.8	846,217	57.2
over 100,000	11	100.0	3,249,128	100.0
<b>Total</b>	<b>947</b>		<b>7,600,065</b>	

Source: Ministry of Governance and Institutional Relations. Muncicat

### 1.2 Structure of economic activity 2018

Sectors of activity	GAV <sup>1</sup>	% of the total	% variation <sup>2</sup>	employed <sup>3</sup>	% of the total	% inter-annual variation
Agriculture	2,196	1.0	2.6	53.6	1.6	6.5
Industry and energy	45,889	20.7	1.1	619.9	18.3	6.1
Construction	11,863	5.4	4.7	217.1	6.4	1.9
Services	161,755	73.0	2.9	2,500.5	73.7	1.8
<b>Total</b>	<b>221,703</b>	<b>100.0</b>		<b>3,391.1</b>	<b>100.0</b>	

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

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

<sup>3</sup> Thousands.

Source: Statistical Institute of Catalonia, based on data from the Active Population Survey.

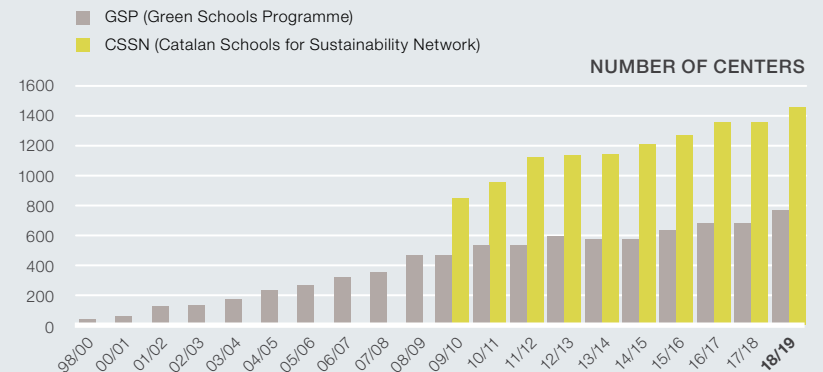
### 1.3 Number of vehicles (thousands of vehicles)

Type of vehicle	2013	2014	2015	2016	2017	2018
Motorbikes	706.1	723.3	748.9	782.6	807.1	834.7
Cars	3,326.9	3,309.6	3,360.9	3,436.3	3,481.3	3,527.5
Buses, lorries and other	950.7	940.6	942.7	952.8	934.4	953.3
<b>Total</b>	<b>4,983.7</b>	<b>4,973.5</b>	<b>5,052.5</b>	<b>5,171.7</b>	<b>5,222.8</b>	<b>5,315.6</b>
<b>Vehicles/1,000 inhabitants<sup>1</sup></b>	<b>659.6</b>	<b>658.2</b>	<b>668.7</b>	<b>684.5</b>	<b>691.2</b>	<b>699.4</b>

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

Source: Statistical Institute of Catalonia.

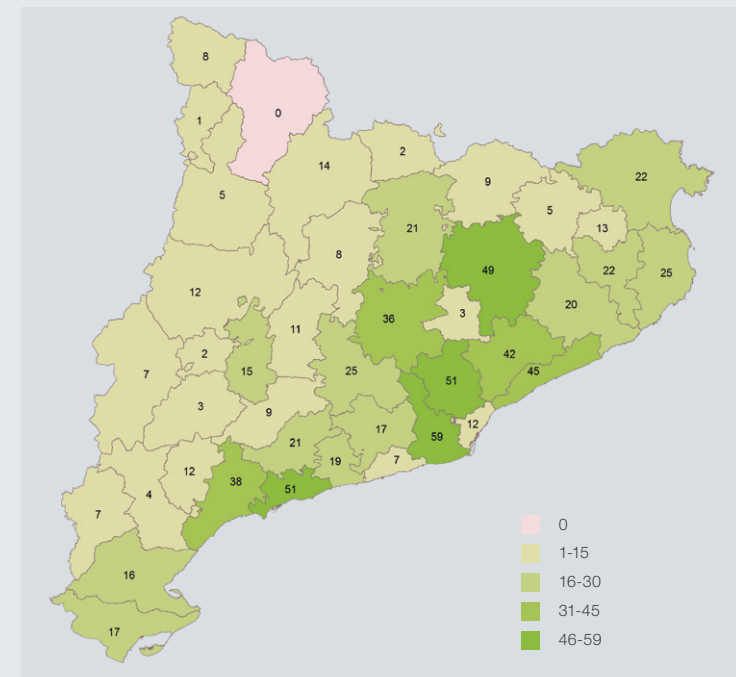
### 1.4 Education centers that belong to the Green Schools Programme



In 2009, the Catalan Schools for Sustainability Network (CSSN) was created. This network includes Green Schools and local networks that promote education programmes for sustainability, aimed at education centres in Catalonia.

Source: Environmental Education Service.

### 1.5 Regional distribution of education centres that belong to the Green Schools Programme. 2018-2019



Source: Environmental Education Service



## 2.1 Overall output of wastewater treatment plants in service

	2013	2014	2015	2016	2017	2018
Number of treatment plants in service	455	489	495	510	516	518
Number of treatment plants analysed	430	475	474	493	-	493
Treated flow (1000 m <sup>3</sup> /day) <sup>1</sup>	1,788	1,724	1,704	1,713	1,742	1,880
Overall average efficiency of removal of suspended matter (%)	93	94	95	94	94	94
Overall average efficiency of BOD <sub>5</sub> <sup>2</sup> removal (%)	94	95	95	96	96	96
Overall average efficiency of COD <sub>5</sub> <sup>3</sup> removal (%)	91	93	93	94	94	93

Note: Currently, over 97% of the population of Catalonia is connected to urban wastewater treatment plants.

<sup>1</sup> In thousands.

<sup>2</sup> Biochemical oxygen demand.

<sup>3</sup> Chemical oxygen demand.

Source: Catalan Water Agency (ACA)

## 2.2 Generation, treatment and destination of sludge generated in wastewater treatment plants

	2013	2014	2015	2016	2017	2018
<b>Sludge generated<sup>1</sup></b>						
El Besòs plant	133,606	122,927	130,595	143,045	140,978	133,134
El Prat plant	53,475	52,746	52,720	50,757	52,881	52,216
Other plants	340,843	345,170	358,285	358,820	352,743	330,064
<b>Total generated</b>	<b>527,924</b>	<b>520,843</b>	<b>541,599</b>	<b>552,623</b>	<b>546,602</b>	<b>515,414</b>

<sup>1</sup> Fresh matter.

	2013	2014	2015	2016	2017	2018
<b>Sludge treatment</b>						
Composting, Catalan Water Agency (ACA) <sup>1</sup>	24,525	31,268	37,360	40,603	39,722	40,817
External composting	170,125	209,406	218,477	225,527	213,573	219,423
Composting	194,651	240,674	255,837	266,130	253,295	260,239
Thermal drying	164,266	43,879	52,109	51,592	49,828	40,054
Other treatments <sup>2</sup>	20,916	49,653	42,899	26,362	39,790	11,388
Digestion with no post-treatment	146,803	185,934	190,227	197,451	203,370	202,712
<b>Total sludge treated</b>	<b>526,635</b>	<b>520,140</b>	<b>541,073</b>	<b>541,535</b>	<b>546,283</b>	<b>514,394</b>

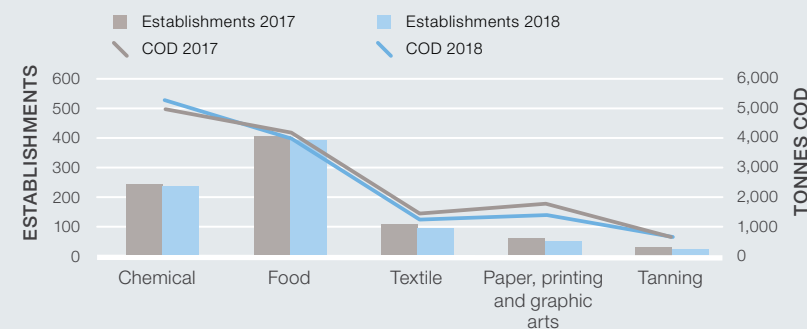
<sup>1</sup> Catalan Water Agency (ACA).

<sup>2</sup> Composting of contaminated material, hazardous treatment, etc.

	2013	2014	2015	2016	2017	2018
<b>Sludge disposed of by destination</b>						
Agriculture and gardening	343,794	412,363	444,765	455,715	462,991	436,191
Controlled landfill	18,159	25,330	20,671	6,538	3,439	7,204
Energy recovery	27,045	7,615	8,010	7,964	7,370	7,585
<b>Total sludge eliminated</b>	<b>388,999</b>	<b>445,307</b>	<b>473,466</b>	<b>470,216</b>	<b>473,799</b>	<b>450,981</b>

Source: Catalan Water Agency (ACA)

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



<sup>1</sup> Chemical Oxygen Demand.

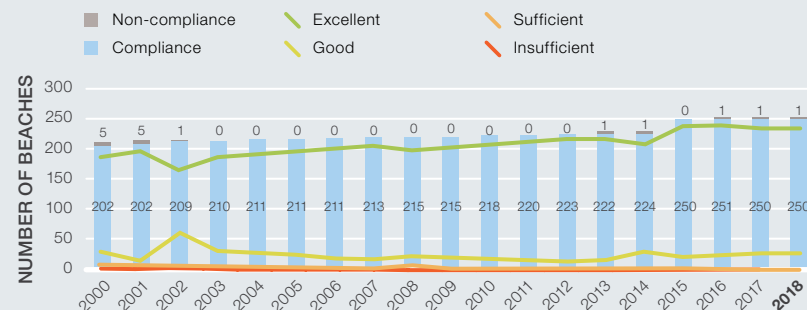
<sup>2</sup> Wastewater treatment plants.

	2017	2018	Number of establishments
Other production sectors	2,850	2,460	749

Note: 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)

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

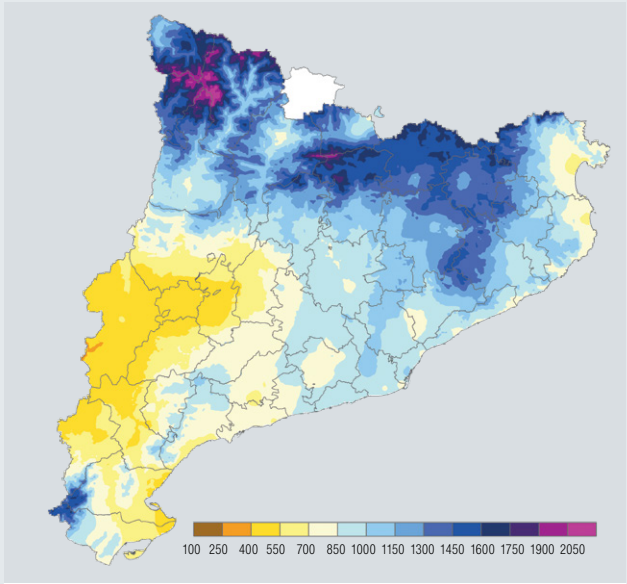


<sup>1</sup> According to European Directive 2006/7/EC, from 2008 the category of 'sufficient' is included, and the categories of 'poor' and 'very poor' are replaced by insufficient.

Source: Catalan Water Agency (ACA).

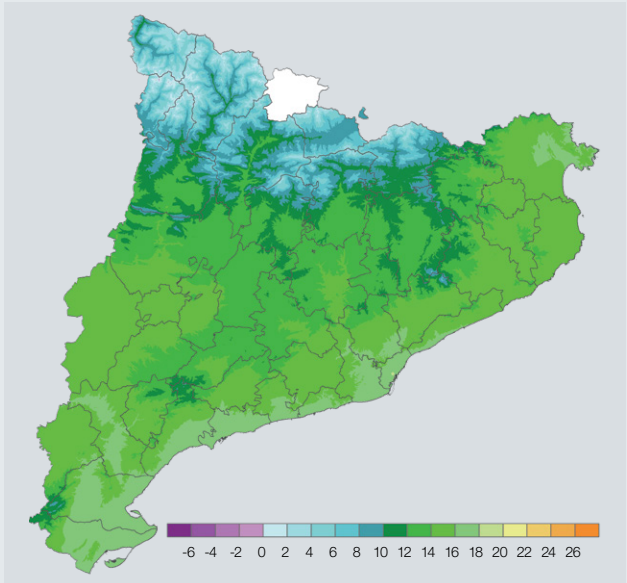


3.1 Map of precipitation in mm. 2018



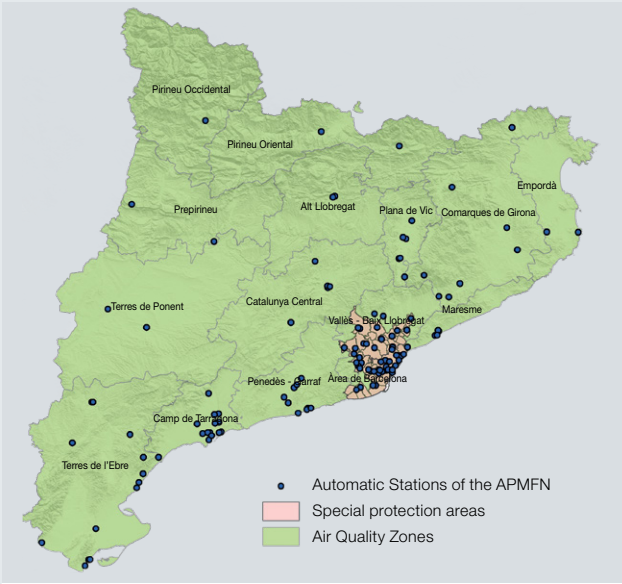
Source: Meteorological Service of Catalonia

Map of cumulative average temperature in C°. 2018



Source: Meteorological Service of Catalonia

3.3 Map of the 15 AQZ<sup>1</sup> in Catalonia and the APMFN<sup>2</sup>. Year 2018



<sup>1</sup> Air quality zones.  
<sup>2</sup> Air Pollution Monitoring and Forecasting Network.  
Source: Air Monitoring and Surveillance Service

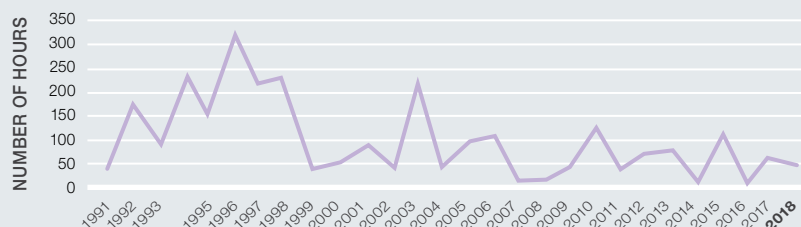
3.4 Compliance with current regulations for NO<sub>2</sub>, PM10 i O<sub>3</sub>

	2010	2013	2014	2015	2016	2017	2018
<b>Percentage of compliance with current regulations on NO<sub>2</sub></b>							
% of stations that comply with the ALV <sup>1</sup> of NO <sub>2</sub> in AQZ1 <sup>2</sup> and AQZ2	32	70	77	60	80	83	93
% of stations that comply with the ALV of NO <sub>2</sub> in the remaining zones (AQZ3 to AQZ15)	100	100	100	100	100	100	100
<b>Percentage of compliance with current regulations on PM10</b>							
% of XVPCA stations that exceed the annual PM10 LV <sup>3</sup>	0	0	0	0	2	0	0
% of XVPCA stations that exceed the daily PM10 LV	4	3	2	4	1	1	0
<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>	125	79	5	115	10	60	52
No. of days with exceedance of the information threshold for O <sub>3</sub>	28	19	4	28	5	13	16

<sup>1</sup> Annual limit value.  
<sup>2</sup> Air quality zone.  
<sup>3</sup> Limit value.  
Source: Air Monitoring and Surveillance Service



### 3.5 Graphs of the number of hours and days with exceedance of the information threshold for $O_3$ .

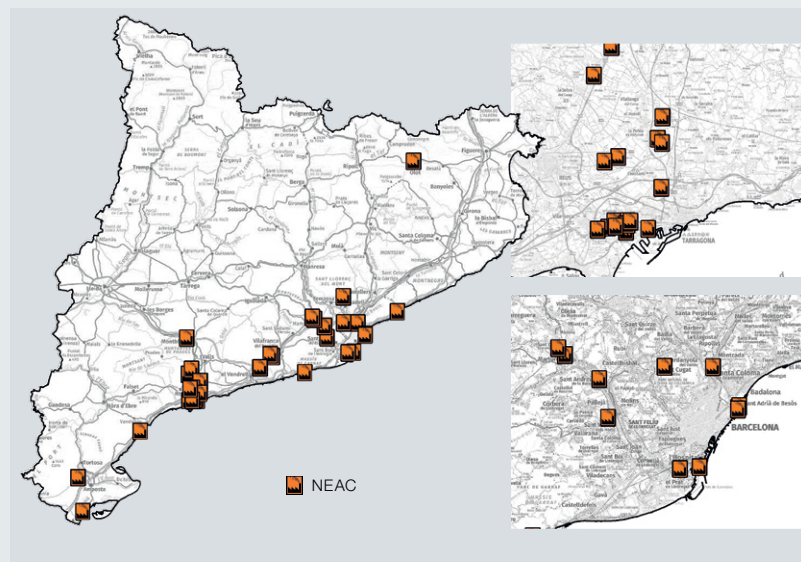


Source: Air Monitoring and Surveillance Service



Source: Air Monitoring and Surveillance Service

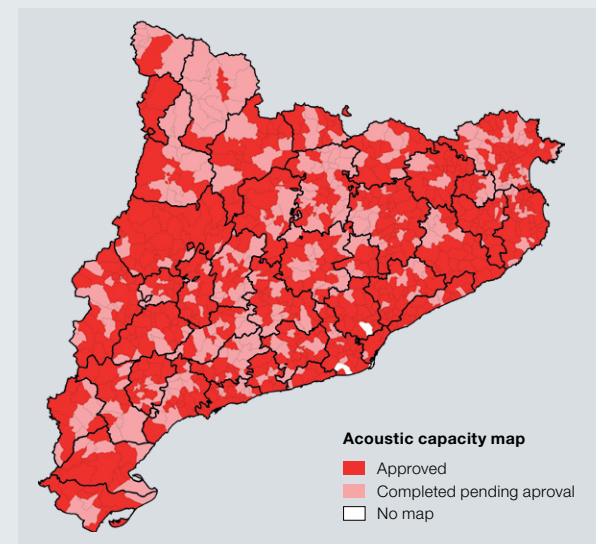
### 3.6 Location Map<sup>1</sup> of automatic sensors of the Network of Atmospheric Emissions of Catalonia (NAEC) for 2018



<sup>1</sup> NEAC sensors allow continuous and real-time monitoring of pollutants emitted by the focuses that have the highest impact on the atmosphere.

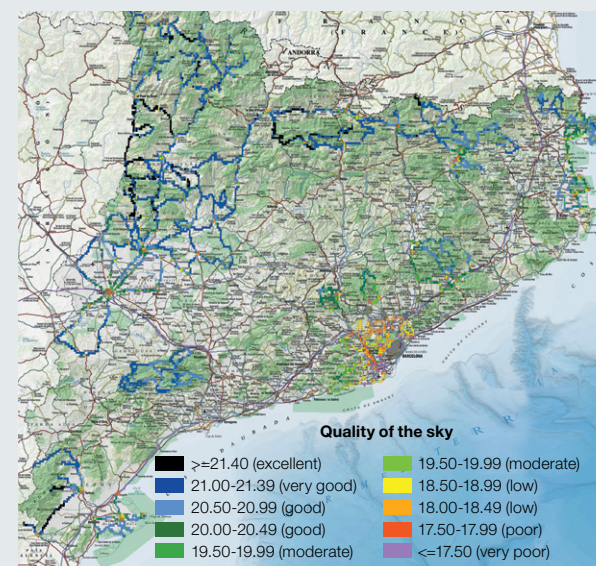
Source: Air Monitoring and Surveillance Service

### 3.7 Status of municipalities, regarding acoustic capacity maps. Year 2018



Source: Light and Noise Pollution Prevention and Control Service

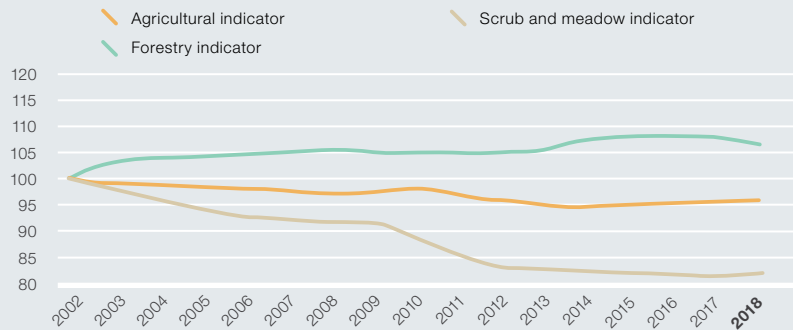
### 3.8 Night light impact on the environment. Map of the quality of sky background in Catalonia. 2018



Source: Light and Noise Pollution Prevention and Control Service



#### 4.1 Indicators for common bird



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

Catalonia (ha): 3,210,521.87		Situation as at 31.12.2018		
	Surface area¹			
	Number of areas	Hectares Land	Hectares Marine	Percentage compared to the total of Catalonia⁴
Plan for areas of Natural Interest (PEIN)	184	1,024,591	85,637	31.91
Specially Protected Natural Areas (ENPE)²	104	317,810	5,401	9.90
National Park	1	39,995	-	1.25
Natural Park	14	265,949	4,049	8.28
Natural Site of National Interest	7	12,011	-	0.37
Integral Nature Reserve	6	1,850	20	0.06
Partial Nature Reserve	58	13,814	933	0.43
Natural reserves of wildlife	14	2,187	-	0.07
Natura 2000 Network³	117	981,961	85,614	30.59
Special Areas of Conservation	115	958,594	85,614	29.86
Special Protection Areas for birds	73	836,675	76,715	26.06

Source: Natural Environment Planning Service.

<sup>1</sup> Surfaces calculated from the cartographic base maps of PEIN, ENPE and N2000 network of the Department of Territory and Sustainability.

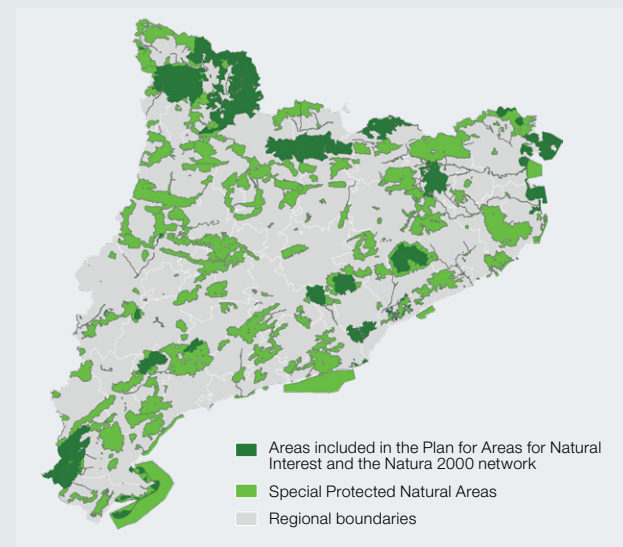
<sup>2</sup> The sum of all the ENPE has been done taking into account not duplicate those surfaces that present more than one ENPE. For this reason, the sum of the surfaces of National Park, Natural Park, PNIN, RNI, RNP and RNFS does not give the same value.

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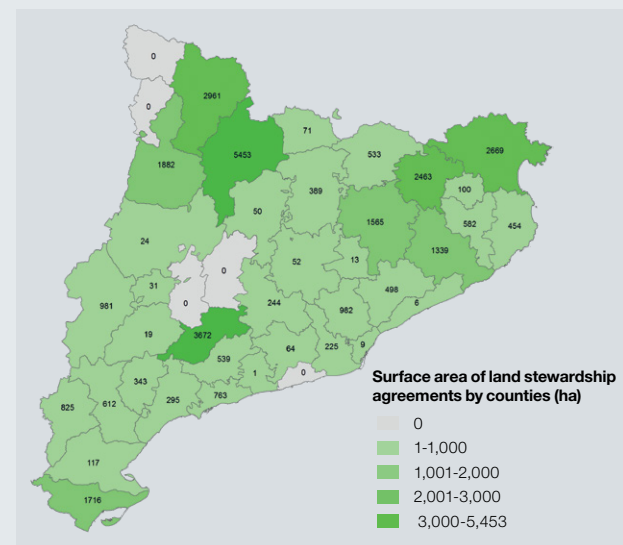
<sup>3</sup> 8 ecological typologies: the areas from Pyrenees, those from Pre-Pyrenees, the agricultural plain, the interior mountain, the continental waters, the coastal mountain, the coastal wetlands and the marine spaces.

<sup>4</sup> Total land extracted from the municipal base map 1: 5,000 from Cartographic and geological institute of Catalonia (ICGC) (01/01/2019 version).

#### 4.3 Plan for Areas of Natural Interest, Specially Protected Natural Areas and Natura 2000 network. Year 2018

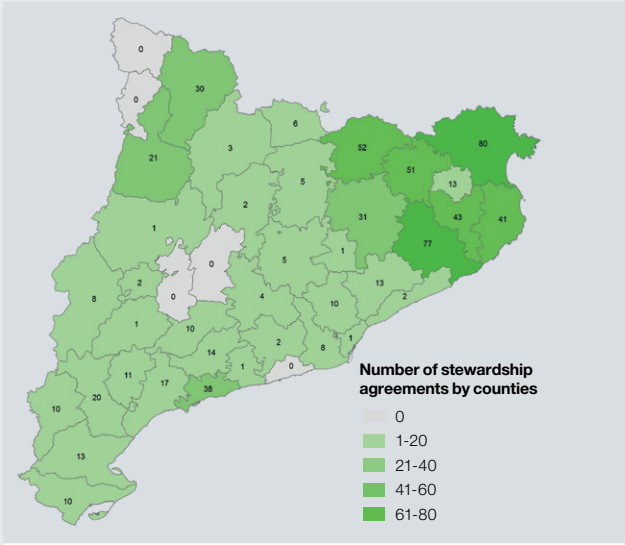


#### 4.4 Map of distribution by counties of the 32,105.4 hectares with land stewardship agreements. Year 2018





4.5 Map of distribution of the 657 land stewardship agreements. Year 2018



Source: Stewardship Agreements Network

4.6 Number of fires and affected surface area



Source: Ministry of Agriculture, Livestock, Fisheries and Food. Directorate-General for Forests. Forest Fire Prevention Service

4.7 Forest management of publicly owned forests

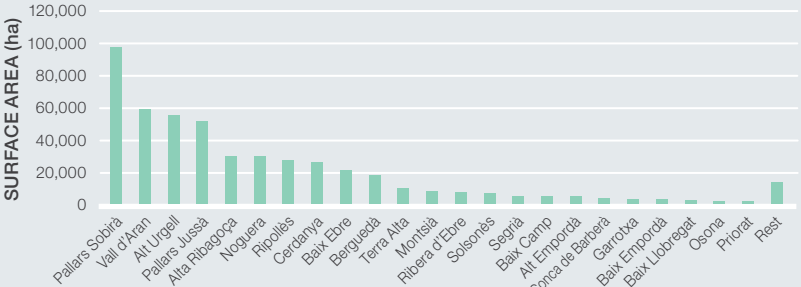
Any	Number of publicly owned forests managed per year	Publicly managed area per year (ha)
2001	24	7,269.69
2002	4	11,126.94
2003	29	18,335.36
2004	76	51,703.46
2005	126	64,493.52
2006	32	14,397.12
2007	56	38,549.89
2008	64	47,001.88
2009	71	34,762.29
2010	30	17,286.87
2011	36	12,429.60
2012	73	24,919.12
2013	24	10,296.00
2014	12	4,918.29
2015	17	7,001.00
2016	16	3,136.40
2017	11	5,201.44
2018	12	2,360.07

Note: The data are not cumulative.  
Source: Ministry of Agriculture, Livestock, Fisheries and Food. Directorate-General for Forests. Forestry Management Service.

Existing management 2018	473	228,074.43
Forests with PEFC certification*	73	41,503.05

\* Programme for Endorsement of Forest Certification.  
Source: Ministry of Agriculture, Livestock, Fisheries and Food. Directorate-General for Forests. Forestry Management Service.

4.8 Total publicly owned forest surface area by region. 2018



Source: Ministry of Agriculture, Livestock, Fisheries and Food. Directorate-General for Forests. Forestry Management Service.





#### 4.9 Forest management on private estates (Technical Forest Management and Improvement Plans (TFMIP), and Basic Forest Management Plans (BFMP))\*

Year	TFMIP in effect	Managed area (ha) with effective TFMIP	Number of TFMIP approved by year	Number of TFMIP approved by 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	419,339.7	207	28,293.3
2010	2,893	424,458.8	173	27,892.7
2011	2,884	424,327.0	148	23,067.0
2012	2,893	428,407.6	160	24,274.0
2013	2,974	444,896.0	285	43,412.0
2014	2,991	452,476.0	172	27,329.0
2015	2,984	446,205.0	167	20,115.0
2016	3,022	450,157.54	243	33,884.2
2017	3,107	455,923.3	229	32,251.5
<b>2018</b>	<b>3,070</b>	<b>450,653</b>	<b>253</b>	<b>39,015</b>

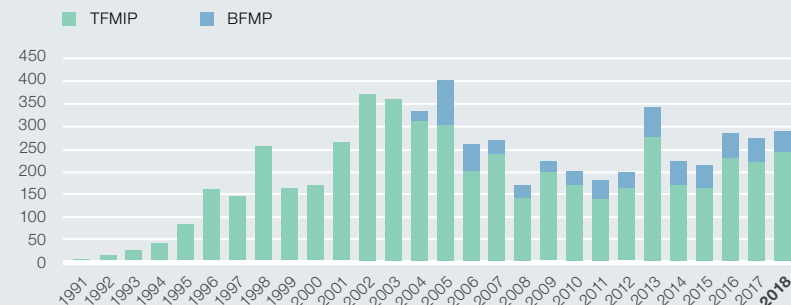
  

Year	BFMP in effect	Area managed (ha) with BFMP in effect	Number of BFMP approved per year	Area managed (ha) with BFMP per year
2004	18	255.1	18	255.1
2005	113	1,322.0	95	1,066.9
2006	180	2,061.6	67	739.6
2007	199	2,323.7	19	262.1
2008	218	2,567.0	19	243.3
2009	231	2,761.5	14	218.8
2010	260	3,154.2	29	392.7
2011	290	3,452.0	31	320.0
2012	331	3,941.4	41	496.0
2013	395	4,743.0	64	802.0
2014	450	5,529.0	56	796.0
2015	489	6,074.0	46	640.0
2016	498	6,313.0	53	685.0
2017	511	6,579.0	51	683.0
<b>2018</b>	<b>536</b>	<b>6,840.0</b>	<b>45</b>	<b>568.0</b>
<b>TOTAL TFMIP and BFMP 2018</b>	<b>3,606</b>	<b>457,493</b>	<b>298</b>	<b>39,583</b>

Note: The data are not cumulative; they show annual totals.

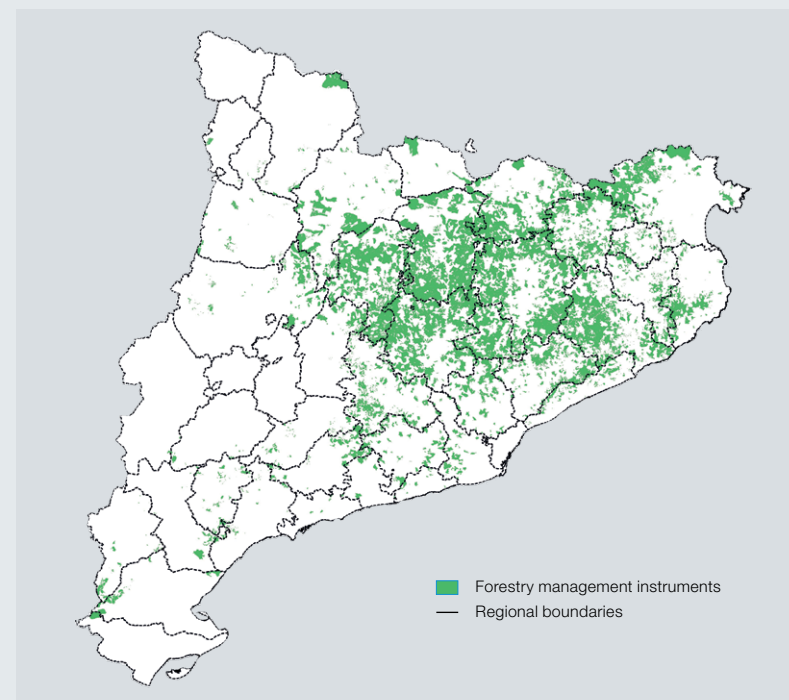
Source: Forest Ownership Centre

#### 4.10 Annual distribution of TFMIP and BFMP approved for 1991-2018



Source: Forest Ownership Centre

#### 4.11 Map of location of forest management on private estates. Year 2018



Source: Forest Ownership Centre



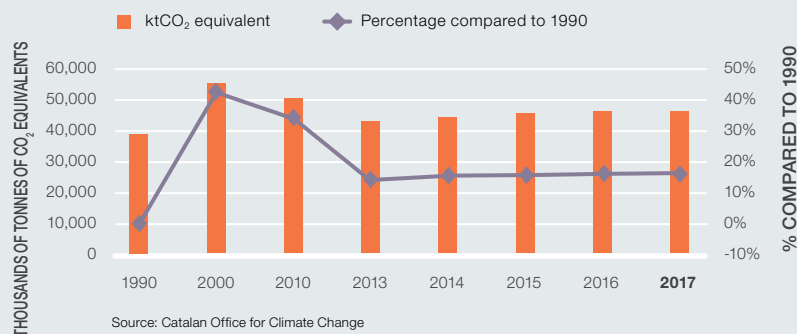
### 5.1 Total Greenhouse Gas (GHG) emissions in Catalonia since 1990 to 2017<sup>1</sup>. Thousands of tonnes of CO<sub>2</sub> equivalents.

Sectors	1990	2000	2010	2013	2014	2015	2016	2017
Energy processing	26,171	34,661	36,500	32,631	29,994	30,869	31,551	32,442
Industrial processes (non-energy)	7,120	13,501	7,029	3,589	5,302	6,303	6,843	6,181
Agriculture	4,024	4,645	4,165	4,107	4,126	3,939	3,593	3,950
Waste processing and disposal	1,842	2,437	3,227	2,586	3,346	2,421	2,541	2,499
<b>Total</b>	<b>39,157</b>	<b>55,245</b>	<b>50,922</b>	<b>42,912</b>	<b>42,768</b>	<b>43,532</b>	<b>43,528</b>	<b>45,072</b>
<b>Percentage compared to 1990</b>	<b>0%</b>	<b>42%</b>	<b>33%</b>	<b>12%</b>	<b>13%</b>	<b>12%</b>	<b>15%</b>	<b>16%</b>

<sup>1</sup> Emissions for 1990 CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O and emissions for 1995 HFCs, PFCs, SF<sub>6</sub>.

Source: Catalan Office for Climate Change

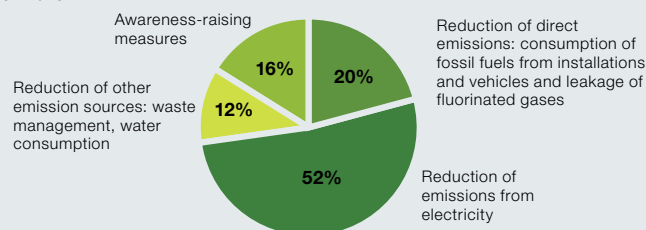
### 5.2 Trend of total GHG emissions in Catalonia



### 5.3 Voluntary Agreement Programme for the reduction of greenhouse gas (GHG) emissions. Year 2018

<b>Total adhered organizations</b>	159
<b>Total measures for the reduction of emissions of GHG planned (accumulated 2010 - 2018)</b>	2,002
<b>Total measures for the reduction of emissions of GHG implemented (2010-2018 accumulated)</b>	1,338

### 5.4 Distribution of the measures for the reduction of emissions of GHG implemented. Year 2018

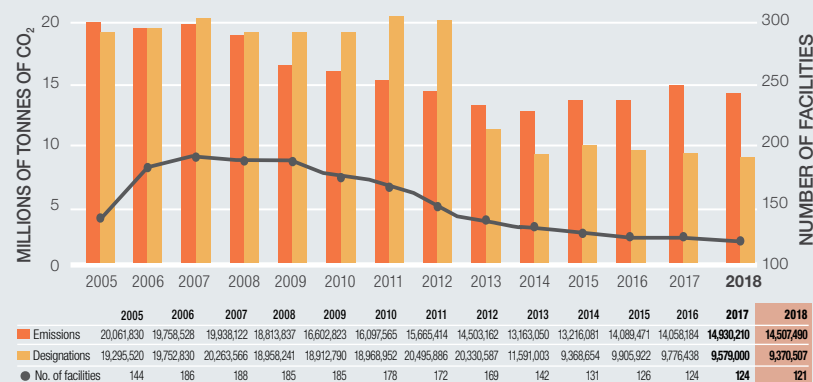


### 5.5 Distribution of GHG emissions by sector, assigned and validated in 2018

Type of activity by Law 1/2005	Number of facilities	Tonnes CO <sub>2</sub> eq		
		Emissions reported [E]	Rights assigneds [A]	Balance [A-E]
<b>Electricity generation sector</b>	<b>6</b>	<b>2,902,553</b>	<b>24,394</b>	<b>-2,878,159</b>
1a. Electrical energy	6	2,902,553	24,394	-2,878,159
<b>Combustion sector</b>	<b>61</b>	<b>2,243,353</b>	<b>886,007</b>	<b>-1,357,346</b>
1b. Cogeneration	32	1,823,522	432,335	-1,391,187
1c. Other combustion facilities	29	419,831	453,672	33,841
<b>Industrial sector</b>	<b>54</b>	<b>9,361,584</b>	<b>8,460,106</b>	<b>-901,478</b>
2. Refineries	2	2,358,810	1,607,763	-751,047
5. Cast iron/steel	1	193,602	241,761	48,159
6. Ferrous metals	1	20,694	28,638	7,944
9. Non-ferrous metals	1	33,500	21,679	-11,821
10. Cement	5	3,148,942	3,373,218	224,276
11. Lime	4	268,522	277,070	8,548
12. Glass	5	242,293	196,839	-45,454
13. Ceramics	8	64,650	124,035	59,385
15. Chalk	1	25,570	12,793	-12,777
16. Paper pulp	3	201,122	63,845	-137,277
17. Paper and packaging board	14	250,294	265,139	14,845
19. Nitric acid	1	24,054	7,626	-16,428
23. Crude organic materials	7	2,146,235	1,893,816	-252,419
24. Hydrogen and syngas	1	383,296	345,884	-37,412
<b>TOTAL</b>	<b>121</b>	<b>14,507,490</b>	<b>9,370,507</b>	<b>-5,136,983</b>

Source: Catalan Office for Climate Change

### 5.6 Emissions, designations and number of facilities. 2005-2018



Source: Catalan Office for Climate Change



### 6.1 Number of companies, products and services awarded with voluntary environmental protection systems

	2010	2013	2014	2015	2016	2017	2018
Number of companies with awards	243	182	199	199	204	209	218
Number of products or services with awards	1,203	822	823	877	837	680	882

#### Total of companies awarded. 2000-2018



Source: Environmental Certification Service

### 6.2 The evolution of the EMAS\* register

	2010	2013	2014	2015	2016	2017	2018
Number of organizations	255	289	285	275	255	234	232
Number of centres	355	417	369	365	399	408	455

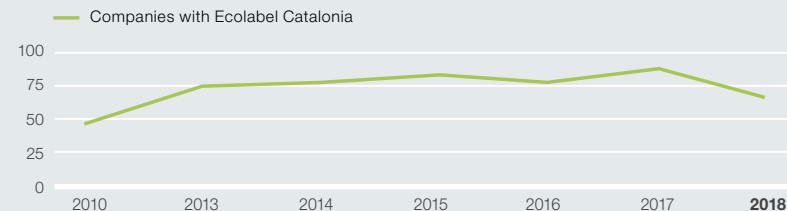
#### EMAS\* register for organizations and centres. 2000-2018



\* Eco-Management and Audit Scheme  
Source: Environmental Certification Service

### 6.3 The European Union Ecolabel

	2010	2013	2014	2015	2016	2017	2018
Empreses amb Etiqueta ecològica Catalunya	49	75	79	84	80	86	67



Note: The group of companies with an ecological label generated 14,282 products and 7 services. More than 13,000 of these products are paints and varnishes.

Source: Environmental Certification Service

### 6.4 Number of low emissions vehicles in Catalonia

	2016	2017	2018
Hybrid vehicles	23,882	35,165	45,926
Electric vehicles	6,188	9,252	13,573
Natural gas vehicles NGV	2,088	3,021	3,284
Liquefied petroleum gas LPG	1,487	2,122	5,800
<b>Total</b>	<b>33,645</b>	<b>49,560</b>	<b>68,583</b>

Source: Cerdà Institute from the data of the Directorate General of Traffic

### 6.5 Recharging points for electric vehicles (VE), compressed natural gas (CNG) and liquefied petroleum gas (LPG)

	2013	2014	2015	2016	2017	2018
Number of plugs in Catalonia	-	330	1,057	1,202	1,334	1,499
NGV recharging points in Catalonia	-	-	13	11	11	11
LPG recharge points in Catalonia	-	-	91	95	96	98

Source: Catalan Institute of Energy



**7.1 Number of impact assessment statements (IAS) issued<sup>1</sup>**

Actions	2013	2014	2015	2016	2017	2018
Ports	0	0	0	1	1	0
Linear infrastructure	5	7	0	3	3	4
Reservoirs and water infrastructure	2	2	0	0	2	0
Changes in the use of the land	2	1	1	3	2	1
Impact on areas of natural interest (PEIN)	1	2	1	4	2	4
<b>Total</b>	<b>10</b>	<b>12</b>	<b>2</b>	<b>11</b>	<b>10</b>	<b>9</b>
Nombre d'informes d'impacte ambiental emesos (IIA) <sup>2</sup>	2013	2014	2015	2016	2017	2018
Ordinary impact assessment required	-	-	-	6	11	14
Ordinary impact assessment not required	-	-	-	43	71	100
<b>Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>49</b>	<b>82</b>	<b>114</b>

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

<sup>2</sup> Upon review, the environmental impact is directly applied to large projects (Law 21/2013 Annex I), to smaller projects (Annex II) or those who are not in the annexes but are developed in protected areas (annex III).

Source: Subdirectorate-General for Intervention and Environmental Qualification. Projects Service. Projects Service

**7.2 Number of impact assessment statements of industrial activities issued\*. 2018**

Type of activity	2015	2016	2017	2018
Chemical/tèxtil/paper	3	5	9	4
Energy	0	1	0	0
Steel industry	0	1	1	2
Waste	9	3	4	5
Food	4	6	2	1
Cattle	79	88	74	81
Mining	17	8	8	10
Others	7	2	7	2
<b>Total</b>	<b>119</b>	<b>114</b>	<b>105</b>	<b>105</b>
Reports of environmental impact of industrial activities	2015	2016	2017	2018
Ordinary impact assessment required	5	7	4	4
Ordinary impact assessment not required	41	51	29	21
<b>Total</b>	<b>46</b>	<b>58</b>	<b>33</b>	<b>25</b>

\* According to the Law 20/2009, of December 4, on prevention and environmental control of activities, are subject to the process of evaluation of environmental impact, according to current regulations, and therefore to the corresponding Declaration of environmental impact or Report of environmental impact, according to they must be submitted to the procedure of Ordinary or Simplified Environmental Impact Assessment.

Source: Subdirectorate-General for Intervention and Environmental Qualification. Prevention Service and Environmental Assessment

Activity

**7.3 Number of decisions on environmental reports and strategic environmental statements**

	2013	2014	2015	2016	2017	2018
Partial territorial plans and territorial master plans	0	0	0	0	0	0
Urban master plans	0	2	3	3	1	1
Municipal urban development plans (POUM)	27	30	33	7	11	11
Changes to general urban development planning	26	26	28	12	16	18
Derived urban development planning	26	15	10	13	3	8
Mobility plans	5	7	7	3	8	8
Other sector plans and programmes	1	5	1	5	2	0
<b>Total</b>	<b>85</b>	<b>85</b>	<b>82</b>	<b>43</b>	<b>41</b>	<b>46</b>

Source: Subdirectorate-General for Intervention and Environmental Qualification. Plans and Programmes Service

**7.4 Resolutions of previous decision and strategic environmental reports**

	2013	2014	2015	2016	2017	2018
Total	14	18	72	109	114	144

Source: Subdirectorate-General for Intervention and Environmental Qualification. Plans and Programmes Service

**7.5 Reference documents and documents of scope of strategic environmental studies**

	2013	2014	2015	2016	2017	2018
Partial territorial plans and territorial master plans	0	0	0	0	0	0
Urban master plans	4	6	4	2	2	1
Municipal urban development plans (POUM)	22	21	12	11	11	7
Changes to general urban development planning	40	29	33	32	29	30
Derived urban development planning	27	26	22	10	27	22
Mobility plans	9	5	8	7	1	4
Other sector plans and programmes	2	9	1	0	4	1
<b>Total</b>	<b>104</b>	<b>96</b>	<b>80</b>	<b>62</b>	<b>74</b>	<b>65</b>

Source: Subdirectorate-General for Intervention and Environmental Qualification. Plans and Programmes Service

**7.6 Air emissions included in the European Pollutant Release and Transfer Register of Catalonia (PRTR-CAT). 2018**

Sector	Emissions to air in tonnes / year						
	Number of establishments with emissions to the air	Greenhouse gases (in CO <sub>2</sub> eq)	Other gases <sup>1</sup>	Particles PM10	Heavy metals	Organic chlorinated substances	Others subst. organics <sup>2</sup>
Combustion	18	3,346,650	15,763	25	1	0	0.2
Mineral	49	4,152,667	20,044	276	1.3	0	3.1
Chemistry	132	3,108,920	5,906	9	0.2	63.3	1.5
Waste management and sewage treatment plant	142	1,754,244	2,175	40	0.4	0	0
Metal	69	473,564	3,324	57	3.1	0	0.01
Livestock and food	921	1,450,578	23,078	26	0.1	0	0
Others	41	561,680	2,634	13	0	0	0
<b>Total</b>	<b>1,372</b>	<b>14,848,303</b>	<b>72,924</b>	<b>446</b>	<b>6.1</b>	<b>63.3</b>	<b>4.8</b>

The total number of establishments included in the PRTR-CAT Register in 2017 was 1446 (56% farms, 33% industrialists, 11% waste managers).

<sup>1</sup> Other g<sup>ases</sup>: m<sup>in</sup>ly CO, NO<sub>x</sub>, SO<sub>x</sub>, COVNM, NH<sub>3</sub>.

<sup>2</sup> Others subst. Organic: Benzene, Naphthalene, Ethylene Oxide, HAP

Source: Information Service, Inspection and Environmental Control of Activities.



## 7.7 Water emissions included in the European Pollutant Release and Transfer Register of Catalonia (PRTR-CAT). 2018

Sector	Emissions to water in tonnes / year					
	Number of establishments with emissions to the water	Inorganic substance <sup>1</sup>	Heavy metals	Organic chlorinated substances	Pesticides	Others subst. organic <sup>2</sup>
Combustion	12	3,483	0.2	1.2	0	434
Mineral	29	37	0.1	0.02	0	5
Chemistry	111	44,560	5.1	16.5	0.002	1,157
Waste management and sewage treatment plant	98	212,196	32.5	265	0.83	7,652
Metal	67	779	1.4	0.3	0	36
Livestock and food	91	7,119	0.1	0.02	0	454
Others	38	2,647	0.2	2	0	249
<b>Total</b>	<b>446</b>	<b>270,821</b>	<b>39.6</b>	<b>285</b>	<b>0.8</b>	<b>9,987</b>

<sup>1</sup> Organic substances: N, P, chlorides, fluorides, cyanides.

<sup>2</sup> Mainly COT and others (HAP, phenols, etc.).

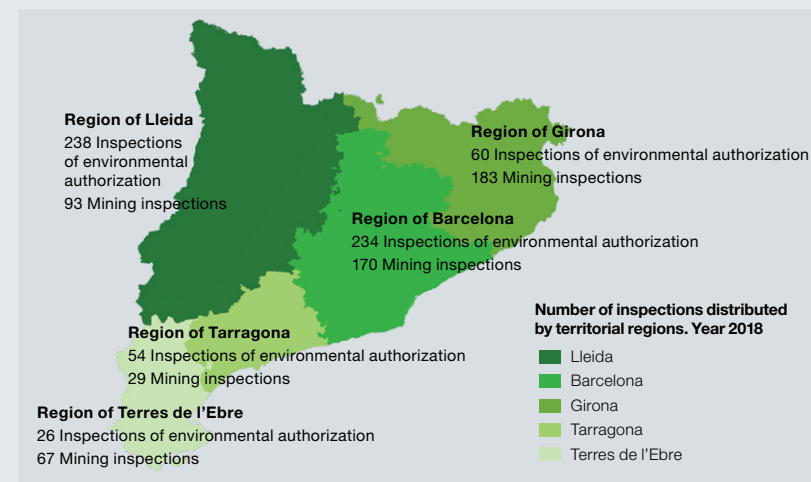
Source: Information Service, Inspection and Environmental Control of Activities.

## 7.8 Inspections of establishments subject to environmental authorization and mining activities

Year	Integrated environmental inspections of establishments with environmental authorization				Inspection of the Restoration Program		
	Industrial activities	Managers of waste and controlled deposits	Explotacions ramaderes	Total	Tracking of the restoration	Final visits of guarantee, denunciations and evaluation	Total
<b>2014</b>	231	62	249	542	337	81	418
<b>2015</b>	222	72	301	595	353	74	427
<b>2016</b>	234	67	310	611	444	52	496
<b>2017</b>	225	85	321	631	346	63	409
<b>2018</b>	216	85	331	<b>632</b>	445	75	<b>520</b>

Source: Information Service, Inspection and Environmental Control of Activities.

## 7.9 Territorial distribution of inspection activities of establishments subject to environmental authorization and mining activities



Source: Service of Information, Inspection and Environmental Control of Activities

## 7.10 Open cast mining activities according to their state of restoration. 2018

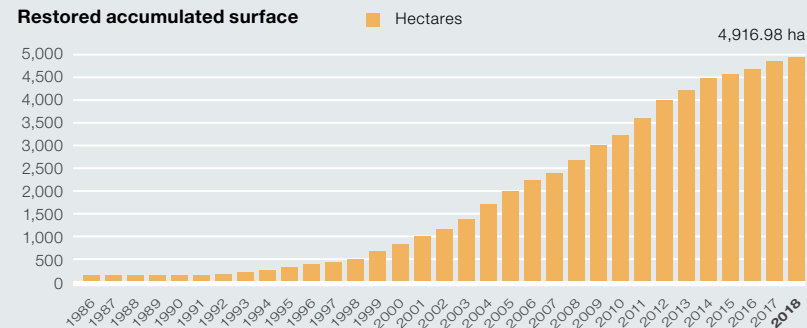
State of restoration	Files		Authorized Surface	
	Number	%	Hectares	%
Mining activities reported and / or authorized activities that do not appear to have begun operating	130	5%	1,115	8%
Mining activities in operation and with restoration not started	600	25%	4,886	37%
Mining activities in operation and with integrated restoration	259	11%	1,767	13%
Restored open cast mining in guarantee period	177	7%	978	7%
Mining activities restored with a returned deposit	861	36%	4,516	34%
Arid extractions* in HPD <sup>1</sup>	381	16%		
<b>Total</b>	<b>2,408</b>		<b>13,262</b>	

<sup>1</sup> HPD: Hydraulic Public Domain

\* The surface is not counted since there are no restoration works because it is extractions within the riverbeds

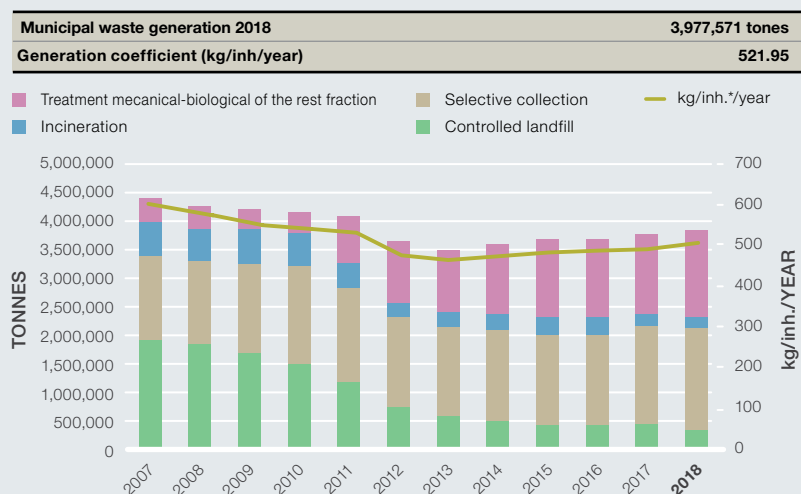
Source: Service of Information, Inspection and Environmental Control of Activities

## Restored accumulated surface





### 8.1 Final destination of municipal waste\*



\* 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

### 8.2 Selective collection.

Waste	Tonnes collection 2018	Tonnes collection 2017	% Total compared to MV <sup>1</sup>	Variation % compared to 2017
Home or community composting	6,806	6,843	0.18	-0.54
Organic fraction	407,812	378,943	10.61	7.62
Pruning-gardening	103,382	97,142	2.96	6.42
Paper and packaging board	314,428	295,200	8.18	6.51
Glass	192,085	180,690	5.00	6.31
Light packaging	159,170	145,250	4.14	9.58
Bulky and wood	248,979	226,085	6.48	10.13
RAEES <sup>2</sup>	44,822	39,818	1.17	12.57
Scrap metal	10,620	9,434	0.28	12.57
Vegetable oils	1,232	1,308	0.03	-5.81
Textile	21,675	9,680	0.56	123.92
Rubble	121,970	116,946	3.17	4.30
REPQ <sup>3</sup>	2,749	2,590	0.07	6.14
Other selective collection	25,347	23,025	0.66	10.08
<b>Total gross selective collection</b>	<b>1,661,077</b>	<b>1,532,954</b>	<b>43.49</b>	<b>8.36</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

### 8.3 Carbon footprint of municipal waste in Catalonia. Treatment and transport

	2013	2014	2015	2016	2017
<b>t CO<sub>2</sub> eq/year</b>					
Total emissions generated	1,440,861	1,561,571	1,604,538	1,692,241	1,717,449
Total emissions avoided	-730,369	-687,676	-756,492	-829,862	-902,643
<b>Total carbon footprint</b>	<b>710,492</b>	<b>873,895</b>	<b>848,046</b>	<b>862,378</b>	<b>814,806</b>
<b>kg CO<sub>2</sub> eq/inhabitant/year</b>					
Emissions generated per inhabitant	191	194	214	225	227
Emissions avoided per inhabitant	-97	-91	-101	-110	-119
<b>Carbon footprint per inhabitant</b>	<b>94</b>	<b>103</b>	<b>113</b>	<b>115</b>	<b>108</b>
<b>kg CO<sub>2</sub> eq/tonne/year</b>					
Emissions generated per inhabitant	401	428	433	454	446
Emissions avoided per inhabitant	-204	-188	-204	-223	-235
<b>Carbon footprint per inhabitant</b>	<b>197</b>	<b>239</b>	<b>229</b>	<b>231</b>	<b>212</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.

Source: Waste Agency of Catalonia

### 8.4 Industrial waste declaration by industrial activity (CCAIE), according to the 2017\* declaration

Type of treatment	Tonnes			%
	Hazardous	Non-hazardous	Total	
Agriculture, livestock, forestry and fishing	98	6,669	6,767	0.18
Extractive industries	440	8,798	9,238	0.24
Food, drink and tobacco industries	21,175	917,230	938,405	24.74
Textile, footwear and leather	3,362	67,578	70,940	1.87
Wood and cork industry, except furniture; basketwork and sparto workshop	712	26,135	26,847	0.71
Paper industry, publishing, graphic arts and reproduction of registered supports	8,687	418,110	426,797	11.25
Manufacture of coke and refined petroleum	4,524	7,022	11,546	0.30
Chemical industries, pharmaceutical products, rubber and plastic products	290,458	354,909	645,367	17.01
Manufacture of other non-metallic mineral products	807	147,414	148,221	3.91
Metallurgy; manufacture of basic iron, steel, ferroalloy and other metal products	75,996	742,094	818,090	21.57
Manufacture of machinery, computer, electrical, electronic and transport equipment	16,581	365,273	381,854	10.07
Manufacture of furniture, other manufacturing industries; Repair and installation fixing	8,167	42,431	50,598	1.33
Distribution of electrical energy, gas, steam and air conditioning	2,907	16,527	19,434	0.51
Wastewater treatment plants and decontamination activities	2,594	85,210	87,804	2.31
Waste collection, treatment and disposal activities; valorization activities	1,815	20,823	22,638	0.60
Construction	1,475	9,661	11,136	0.29
Services (except wholesale scrap and waste products)	17,641	99,875	117,516	3.10
Wholesale scrap and waste products	0	151	151	0.00
<b>Total</b>	<b>457,439</b>	<b>3,335,910</b>	<b>3,793,349</b>	<b>100</b>

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

Source: Waste Agency of Catalonia



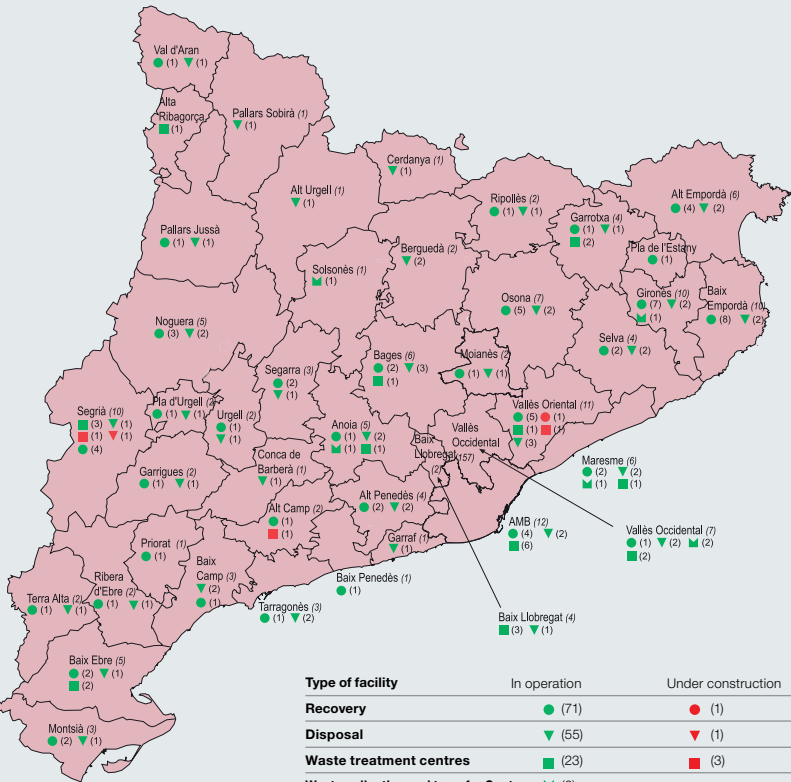


8.5 Types of treatment of industrial waste declared in 2017\*

Type of treatment	Hazardous	Non-hazardous	Total	%
Recovery energy	8,017	15,000	23,017	1
Recovery at source	46,765	97,276	144,041	4
Recovery external	172,067	2,475,304	2,647,371	70
Recovery by-products	8,233	133,085	141,318	4
Storage	1,768	21,863	23,631	1
Physicochemical treatment	121,723	97,186	218,909	6
Controlled disposal	65,034	486,450	551,484	15
Incineration	33,696	3,192	36,888	1
Others	134	6,554	6,688	0
<b>Total</b>	<b>457,437</b>	<b>3,335,910</b>	<b>3,793,347</b>	<b>100</b>

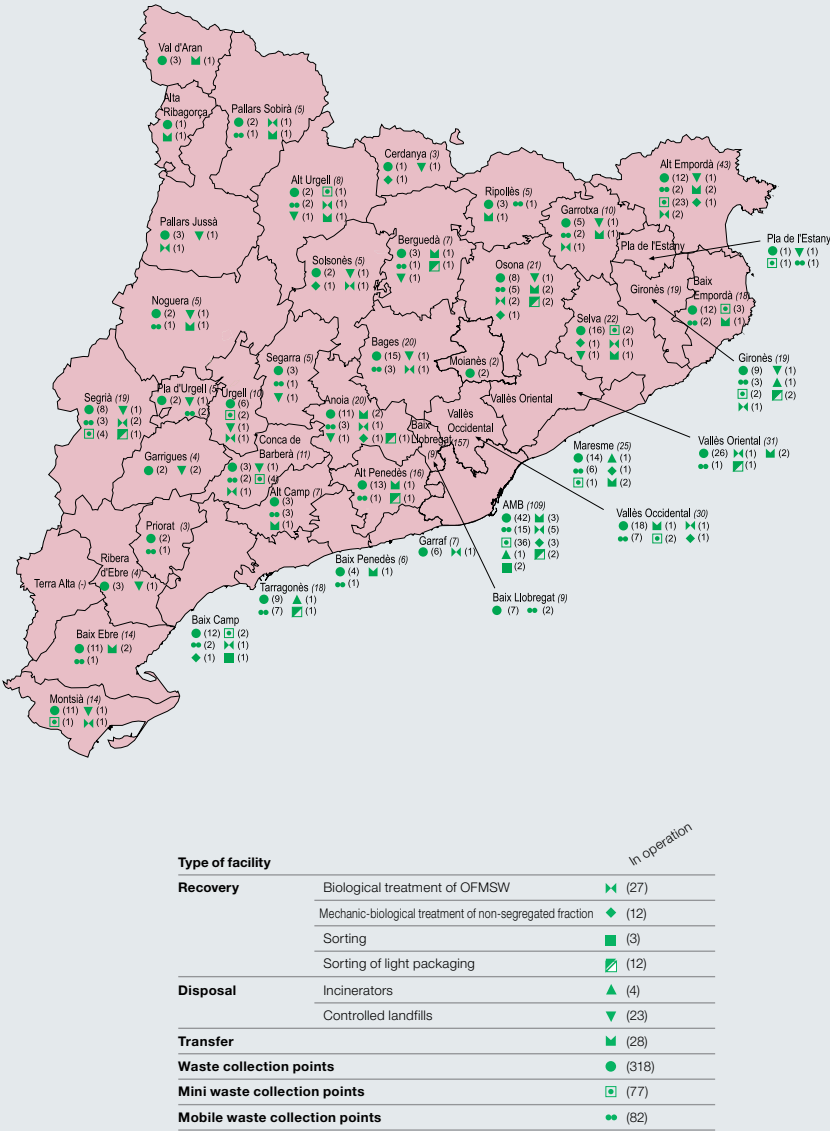
\* The data may be slightly skewed due to the use of rounded-up decimals in calculations.  
Source: Waste Agency of Catalonia.

8.6 Facilities in operation for the management of rubble and other construction waste in Catalonia. 2018



(n) Number of authorised facilities

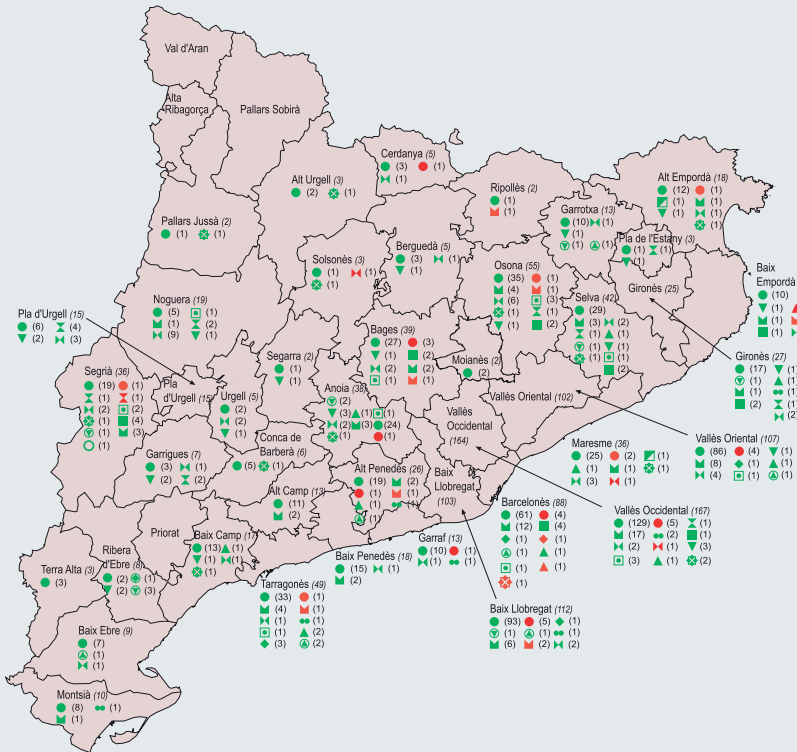
8.7 Facilities in operation and under construction for the management of municipal waste in Catalonia. 2018



(n) Number of facilities



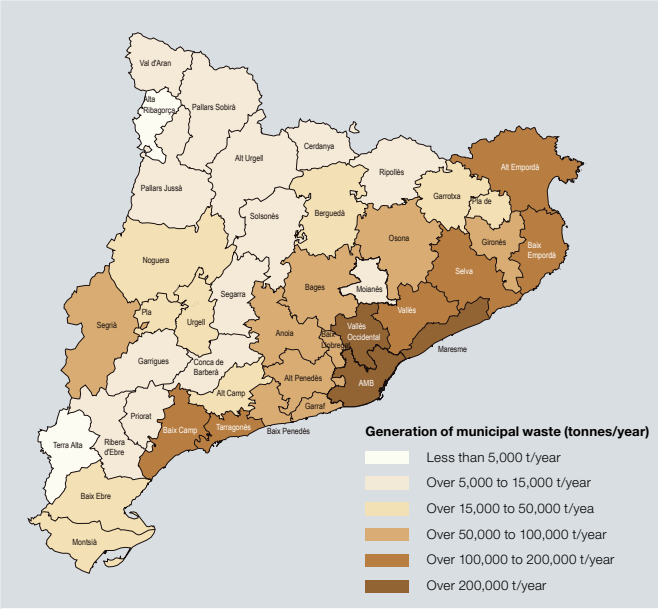
8.8 Facilities in operation and on trial for the management of industrial waste in Catalonia. 2017



Type of facility		Management at source	Trial management at source	External management	Trial external management
Recovery	Agricultural use	■ (2)		■ (18)	
	Composting		■ (53)		■ (4)
	Anaerobic digestion	■ (14)		■ (1)	
	Waste recovery centre	○ (1)		● (734)	● (32)
	Energy recovery centre			● (8)	
Disposal	Controlled landfill	▼ (10)		▼ (25)	
	Incinerators	▲ (8)		▲ (12)	▲ (1)
Treatment	Physicochemical	◆ (1)		◆ (6)	◆ (1)
	Waste treatment			■ (15)	
Waste treatment centres		■ (13)		■ (1)	
Waste collection and transfer Centres		■ (73)		■ (9)	

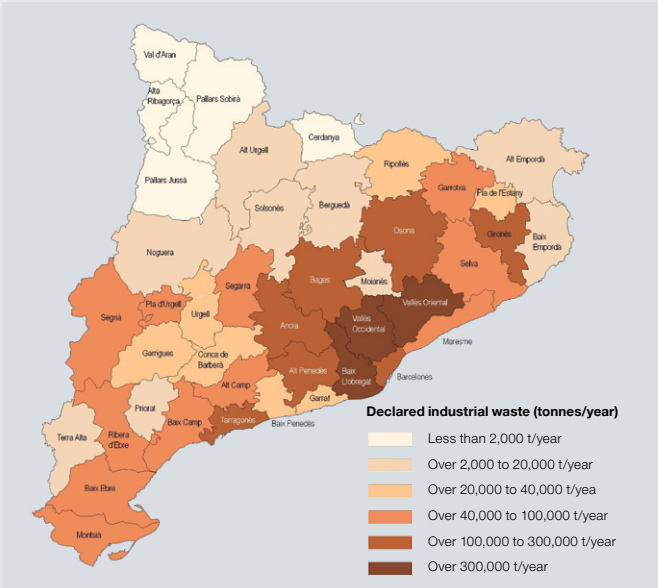
(n) Number of authorised facilities

8.9 Generation of municipal waste by region. 2018



Source: Waste Agency of Catalonia (ARC)

8.10 Industrial waste declared by region. 2017



Source: Waste Agency of Catalonia (ARC)



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