

1. Waste collection in the Port of Genoa (2008-2018).

The classification of waste at European level is based on the European List of Waste (Commission Decision 2000/532/EC – consolidated version) and Annex III to Directive 2008/98/EC (consolidated version). The List of Waste (LoW) provides an EU-wide common terminology for waste classification to ease waste management, including for hazardous waste. The assignment of LoW codes serves in a broad variety of activities, including the transport of waste, installation permits (which often refer also to specific waste codes), or as a basis for waste statistics. According to Decision 2000/532/EC, the LoW should be revised regularly on the basis of new knowledge and, in particular, of research results. The last amendment is Commission Decision 2014/955/EU, which followed a specific study on the review of the European LoW.

(see <https://ec.europa.eu/environment/waste/framework/list.htm> for details).

Numbers related to the waste collection in the Port of Genoa 2008-2018 in tonnes according to EU Directive 2008/98/EC “at a glance”, follows. Please note that EWC (European Waste Code) is translated with CER (Codice Europeo Rifiuto) in Italian language.

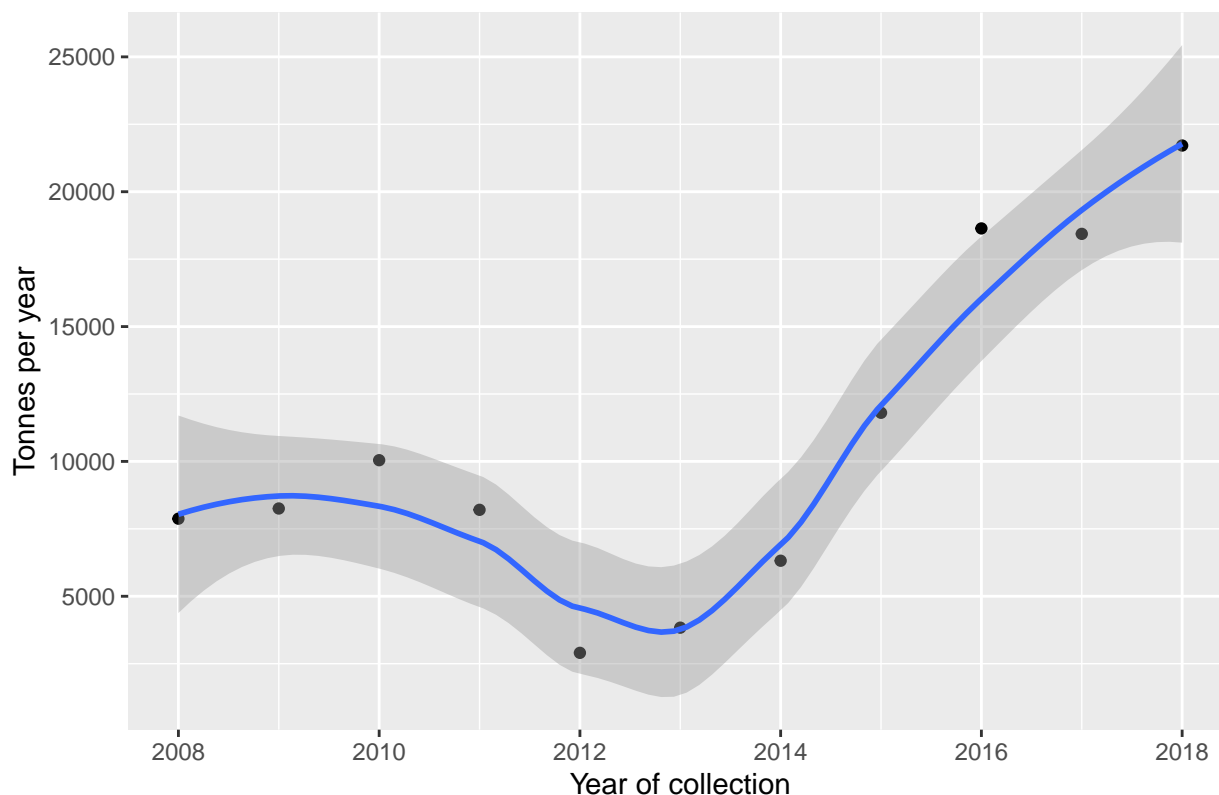
The dataset organized by CER codes is publicly provided by the Ports of Genoa (<https://www.portsofgenoa.com/it/comunicazione-marketing/news/2560-nuovo-piano-gestione-rifiuti.html>)/

Total in tonnes per year (data)

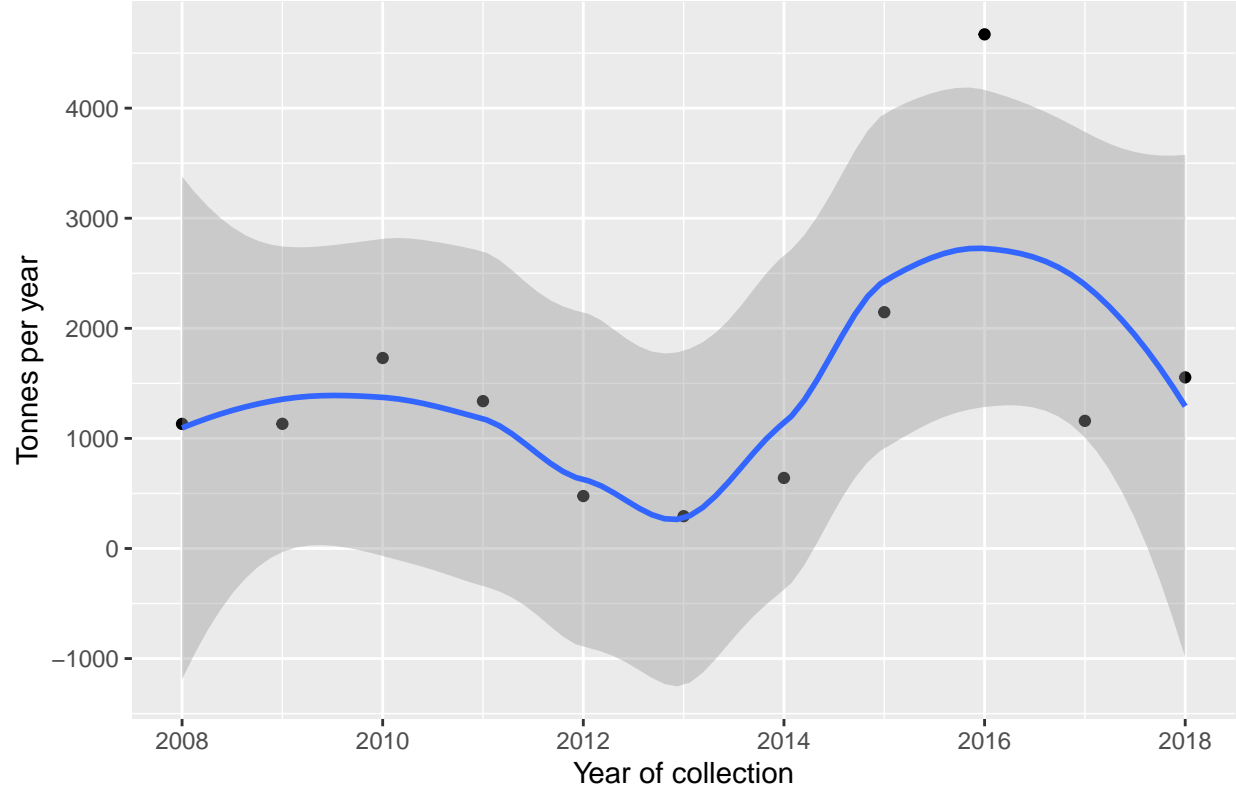
2008	2009	2010	2011	2012	2013	2014	2015
7877.45	8254.98	10045.51	8205.40	2902.87	3836.52	6317.80	11803.54
2016	2017	2018					
18638.33	18436.98	21712.13					

Total in tonnes per year (chart)

Waste collection in the Port of Genoa (t per year, 2008–2018)



Dangerous waste collection in the Port of Genoa (t per year, 2008–2018)



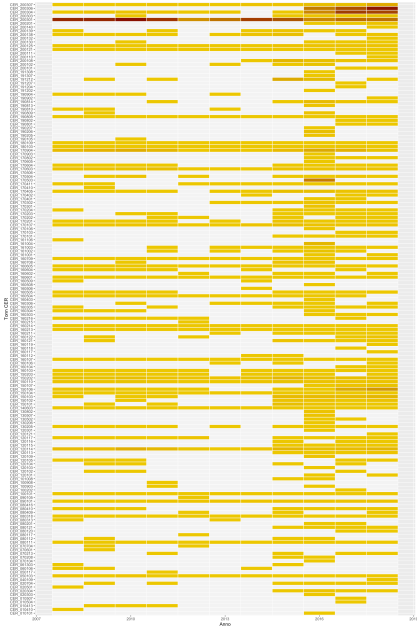
3. Dataset analysis.

Dataset dimension: 11, 164 (observations of variables)

Exploratory Data analysis:

Dataset contains **1073 missing records** (NA).

EDA reveals that the amount of Missing Values may impact the dataset heavily. Visually, is reported below a heatmap showing evidence of the dataset status (see annexes for bigger image).



ANNEX - SUMMARY OF DATASET

What follows is the summary of the dataset for waste collection in the Port of Genoa 2008-2018 in tonnes. Information is summarized for each CER code, including min and max values, median, mean, 1st and 3rd quartile, and the number of missing values (NAs).

CER_010101	CER_010410	CER_010413	CER_010504	CER_010507
Min. :5.96	Min. :12.44	Min. :16.30	Min. :1.14	Min. :1.24
1st Qu.:5.96	1st Qu.:12.44	1st Qu.:23.86	1st Qu.:1.14	1st Qu.:1.24
Median :5.96	Median :12.44	Median :31.42	Median :1.14	Median :1.24
Mean :5.96	Mean :12.44	Mean :27.47	Mean :1.14	Mean :1.24
3rd Qu.:5.96	3rd Qu.:12.44	3rd Qu.:33.06	3rd Qu.:1.14	3rd Qu.:1.24
Max. :5.96	Max. :12.44	Max. :34.70	Max. :1.14	Max. :1.24
NA's :10	NA's :10	NA's :8	NA's :10	NA's :10
CER_020303	CER_020304	CER_020501	CER_020704	CER_040109
Min. :30.9	Min. : 5.750	Min. :6.7	Min. : 0.2000	Min. :1.34
1st Qu.:30.9	1st Qu.: 7.737	1st Qu.:6.7	1st Qu.: 0.8525	1st Qu.:1.34
Median :30.9	Median :14.810	Median :6.7	Median : 3.6450	Median :1.34
Mean :30.9	Mean :24.430	Mean :6.7	Mean : 5.1417	Mean :1.34
3rd Qu.:30.9	3rd Qu.:31.503	3rd Qu.:6.7	3rd Qu.: 7.1500	3rd Qu.:1.34
Max. :30.9	Max. :62.350	Max. :6.7	Max. :15.1200	Max. :1.34
NA's :10	NA's :7	NA's :10	NA's :5	NA's :10
CER_050103	CER_050117	CER_060106	CER_061303	CER_070104
Min. :14.20	Min. :11.7	Min. :0.180	Min. :0.44	Min. :0.4
1st Qu.:22.62	1st Qu.:11.7	1st Qu.:0.605	1st Qu.:0.56	1st Qu.:0.4
Median :38.01	Median :11.7	Median :1.030	Median :0.68	Median :0.4
Mean :40.40	Mean :11.7	Mean :2.437	Mean :0.68	Mean :0.4
3rd Qu.:44.12	3rd Qu.:11.7	3rd Qu.:3.565	3rd Qu.:0.80	3rd Qu.:0.4
Max. :95.37	Max. :11.7	Max. :6.100	Max. :0.92	Max. :0.4
	NA's :10	NA's :8	NA's :9	NA's :10
CER_070208	CER_070213	CER_070601	CER_070704	
Min. :11.44	Min. : 0.510	Min. :0.38	Min. :0.3800	
1st Qu.:11.53	1st Qu.: 7.718	1st Qu.:0.38	1st Qu.:0.7775	
Median :11.62	Median :10.960	Median :0.38	Median :1.1750	
Mean :11.62	Mean :10.027	Mean :0.38	Mean :1.1750	
3rd Qu.:11.71	3rd Qu.:13.270	3rd Qu.:0.38	3rd Qu.:1.5725	
Max. :11.80	Max. :17.680	Max. :0.38	Max. :1.9700	
NA's :9	NA's :7	NA's :10	NA's :9	
CER_080111	CER_080117	CER_080112	CER_080120	
Min. : 3.21	Min. :13.68	Min. :1.520	Min. :19.54	
1st Qu.: 8.27	1st Qu.:13.68	1st Qu.:2.320	1st Qu.:27.43	
Median :22.85	Median :13.68	Median :3.120	Median :35.33	
Mean :19.65	Mean :13.68	Mean :3.087	Mean :35.33	
3rd Qu.:25.41	3rd Qu.:13.68	3rd Qu.:3.870	3rd Qu.:43.23	
Max. :39.80	Max. :13.68	Max. :4.620	Max. :51.12	
	NA's :10	NA's :8	NA's :9	
CER_080121	CER_080201	CER_080313	CER_080318	
Min. : 0.300	Min. :0.0400	Min. :0.0000	Min. :0.1200	
1st Qu.: 3.112	1st Qu.:0.0475	1st Qu.:0.0225	1st Qu.:0.3650	
Median : 7.795	Median :0.0550	Median :0.0450	Median :0.4300	
Mean : 7.230	Mean :0.0550	Mean :0.0450	Mean :0.5264	
3rd Qu.:11.912	3rd Qu.:0.0625	3rd Qu.:0.0675	3rd Qu.:0.6500	

Max. :13.030	Max. :0.0700	Max. :0.0900	Max. :1.1900	
NA's :7	NA's :9	NA's :9		
CER_080409	CER_080410	CER_080416	CER_090101	CER_090105
Min. :0.10	Min. :0.080	Min. : NA	Min. : 4.46	Min. :0.62
1st Qu.:1.02	1st Qu.:0.135	1st Qu.: NA	1st Qu.: 56.82	1st Qu.:0.62
Median :1.94	Median :0.440	Median : NA	Median : 68.65	Median :0.62
Mean :2.76	Mean :2.546	Mean :NaN	Mean : 66.27	Mean :0.62
3rd Qu.:4.09	3rd Qu.:5.020	3rd Qu.: NA	3rd Qu.: 78.37	3rd Qu.:0.62
Max. :6.24	Max. :6.990	Max. : NA	Max. :139.98	Max. :0.62
NA's :8	NA's :4	NA's :11		NA's :10
CER_100101	CER_100202	CER_100903	CER_100908	CER_101008
Min. : 2.950	Min. :6.72	Min. :0.580	Min. :0.14	Min. :1.130
1st Qu.: 4.350	1st Qu.:6.72	1st Qu.:1.005	1st Qu.:0.14	1st Qu.:1.268
Median : 6.600	Median :6.72	Median :1.430	Median :0.14	Median :1.405
Mean : 8.515	Mean :6.72	Mean :1.430	Mean :0.14	Mean :1.405
3rd Qu.:10.060	3rd Qu.:6.72	3rd Qu.:1.855	3rd Qu.:0.14	3rd Qu.:1.542
Max. :25.450	Max. :6.72	Max. :2.280	Max. :0.14	Max. :1.680
	NA's :10	NA's :9	NA's :10	NA's :9
CER_120101	CER_120102	CER_120103	CER_120104	
Min. :0.500	Min. :0.190	Min. :0.71	Min. :0.0400	
1st Qu.:1.135	1st Qu.:0.195	1st Qu.:0.71	1st Qu.:0.0775	
Median :1.770	Median :0.200	Median :0.71	Median :0.1450	
Mean :1.770	Mean :0.980	Mean :0.71	Mean :0.7200	
3rd Qu.:2.405	3rd Qu.:1.375	3rd Qu.:0.71	3rd Qu.:0.7875	
Max. :3.040	Max. :2.550	Max. :0.71	Max. :2.5500	
NA's :9	NA's :8	NA's :10	NA's :7	
CER_120105	CER_120109	CER_120113	CER_120114	
Min. : 0.01	Min. :65.54	Min. : 0.2200	Min. : 50.03	
1st Qu.: 0.05	1st Qu.:65.54	1st Qu.: 0.6025	1st Qu.:287.27	
Median : 8.74	Median :65.54	Median :14.4950	Median :476.17	
Mean :11.75	Mean :65.54	Mean :31.7225	Mean :444.02	
3rd Qu.:23.21	3rd Qu.:65.54	3rd Qu.:45.6150	3rd Qu.:587.10	
Max. :26.72	Max. :65.54	Max. :97.6800	Max. :884.92	
NA's :6	NA's :10	NA's :7		
CER_120115	CER_120116	CER_120117	CER_120121	CER_120301
Min. :2.760	Min. :0.020	Min. : 0.01	Min. :0.04	Min. :17.52
1st Qu.:2.797	1st Qu.:0.035	1st Qu.: 0.84	1st Qu.:0.04	1st Qu.:17.52
Median :3.005	Median :0.050	Median : 3.76	Median :0.04	Median :17.52
Mean :3.765	Mean :0.770	Mean :16.59	Mean :0.04	Mean :17.52
3rd Qu.:3.973	3rd Qu.:1.145	3rd Qu.:13.57	3rd Qu.:0.04	3rd Qu.:17.52
Max. :6.290	Max. :2.240	Max. :68.84	Max. :0.04	Max. :17.52
NA's :7	NA's :8	NA's :2	NA's :10	NA's :10
CER_130205	CER_130206	CER_130502	CER_130507	CER_130802
Min. :0.030	Min. :2.34	Min. :0.200	Min. :57.88	Min. :140.9
1st Qu.:0.460	1st Qu.:2.34	1st Qu.:0.495	1st Qu.:57.88	1st Qu.:140.9
Median :1.170	Median :2.34	Median :0.790	Median :57.88	Median :140.9
Mean :1.463	Mean :2.34	Mean :0.790	Mean :57.88	Mean :140.9
3rd Qu.:1.280	3rd Qu.:2.34	3rd Qu.:1.085	3rd Qu.:57.88	3rd Qu.:140.9
Max. :5.610	Max. :2.34	Max. :1.380	Max. :57.88	Max. :140.9
NA's :2	NA's :10	NA's :9	NA's :10	NA's :10
CER_140603	CER_150101	CER_150102	CER_150103	
Min. :0.180	Min. : 0.40	Min. : 3.74	Min. : 0.600	

1st Qu.:0.410	1st Qu.: 34.85	1st Qu.: 51.02	1st Qu.: 3.285	
Median :1.060	Median : 49.23	Median : 57.71	Median :413.950	
Mean :2.572	Mean :100.12	Mean : 65.65	Mean :274.849	
3rd Qu.:4.055	3rd Qu.:121.74	3rd Qu.: 79.54	3rd Qu.:466.735	
Max. :8.420	Max. :325.91	Max. :136.26	Max. :569.350	
	NA's :5	NA's :6	NA's :4	
CER_150104	CER_150106	CER_150107	CER_150110	
Min. : 7.30	Min. : 3.28	Min. : 25.93	Min. : 29.64	
1st Qu.:15.83	1st Qu.: 14.38	1st Qu.: 50.39	1st Qu.: 88.27	
Median :20.70	Median : 40.76	Median : 74.85	Median :133.48	
Mean :24.61	Mean : 372.86	Mean : 99.69	Mean :125.19	
3rd Qu.:34.22	3rd Qu.: 114.22	3rd Qu.:136.56	3rd Qu.:155.25	
Max. :49.17	Max. :1873.99	Max. :198.28	Max. :236.43	
	NA's :2	NA's :8		
CER_150202	CER_150203	CER_160103	CER_160104	
Min. : 73.54	Min. : 0.090	Min. : 1.32	Min. : 2.42	
1st Qu.:191.91	1st Qu.: 0.820	1st Qu.: 3.63	1st Qu.:10.46	
Median :231.77	Median : 1.600	Median : 8.09	Median :18.50	
Mean :261.58	Mean : 3.291	Mean :10.96	Mean :18.50	
3rd Qu.:303.12	3rd Qu.: 2.720	3rd Qu.:14.74	3rd Qu.:26.54	
Max. :649.25	Max. :12.780	Max. :28.47	Max. :34.58	
	NA's :2	NA's :1	NA's :9	
CER_160106	CER_160107	CER_160112	CER_160117	CER_160118
Min. :0.50	Min. :0.700	Min. :0.04	Min. :1.62	Min. :0.06
1st Qu.:3.87	1st Qu.:0.885	1st Qu.:0.10	1st Qu.:1.62	1st Qu.:0.06
Median :7.24	Median :1.700	Median :0.16	Median :1.62	Median :0.06
Mean :5.22	Mean :2.119	Mean :0.16	Mean :1.62	Mean :0.06
3rd Qu.:7.58	3rd Qu.:2.295	3rd Qu.:0.22	3rd Qu.:1.62	3rd Qu.:0.06
Max. :7.92	Max. :6.800	Max. :0.28	Max. :1.62	Max. :0.06
NA's :8		NA's :9	NA's :10	NA's :10
CER_160119	CER_160121	CER_160122	CER_160211	
Min. :0.34	Min. : 0.28	Min. : 0.280	Min. :0.07	
1st Qu.:0.34	1st Qu.: 1.96	1st Qu.: 0.685	1st Qu.:0.67	
Median :0.34	Median : 6.23	Median : 6.235	Median :1.09	
Mean :0.34	Mean : 32.24	Mean :22.970	Mean :2.53	
3rd Qu.:0.34	3rd Qu.: 37.55	3rd Qu.:28.520	3rd Qu.:2.33	
Max. :0.34	Max. :115.19	Max. :79.130	Max. :8.49	
NA's :10	NA's :6	NA's :7	NA's :6	
CER_160213	CER_160214	CER_160215	CER_160216	
Min. : 0.80	Min. : 0.880	Min. :0.06	Min. :0.0100	
1st Qu.: 6.02	1st Qu.: 6.465	1st Qu.:0.06	1st Qu.:0.1050	
Median : 7.90	Median :10.220	Median :0.06	Median :0.2850	
Mean :11.81	Mean :12.735	Mean :0.06	Mean :0.4017	
3rd Qu.:16.36	3rd Qu.:18.565	3rd Qu.:0.06	3rd Qu.:0.3750	
Max. :31.27	Max. :32.430	Max. :0.06	Max. :1.3800	
		NA's :10	NA's :5	
CER_160303	CER_160304	CER_160305	CER_160306	
Min. : 0.260	Min. : 0.980	Min. : 0.040	Min. :0.140	
1st Qu.: 0.980	1st Qu.: 1.670	1st Qu.: 0.120	1st Qu.:0.265	
Median : 1.700	Median : 2.720	Median : 0.420	Median :0.615	
Mean : 7.607	Mean : 7.555	Mean : 3.655	Mean :1.737	
3rd Qu.:11.280	3rd Qu.: 8.605	3rd Qu.: 7.740	3rd Qu.:1.093	

Max. :20.860	Max. :23.800	Max. :10.850	Max. :7.650	
NA's :8	NA's :7	NA's :5	NA's :5	
CER_160403	CER_160504	CER_160505	CER_160506	CER_160508
Min. :0.05	Min. :0.0200	Min. :0.0200	Min. :0.02	Min. :3.55
1st Qu.:0.05	1st Qu.:0.0925	1st Qu.:0.3525	1st Qu.:0.02	1st Qu.:3.55
Median :0.05	Median :0.1450	Median :1.8450	Median :0.02	Median :3.55
Mean :0.05	Mean :0.7990	Mean :2.1738	Mean :0.02	Mean :3.55
3rd Qu.:0.05	3rd Qu.:0.5475	3rd Qu.:3.0250	3rd Qu.:0.02	3rd Qu.:3.55
Max. :0.05	Max. :5.8800	Max. :6.5700	Max. :0.02	Max. :3.55
NA's :10	NA's :1	NA's :3	NA's :10	NA's :10
CER_160509	CER_160601	CER_160602	CER_160604	
Min. :0.3300	Min. : 3.100	Min. :0.160	Min. :0.00000	
1st Qu.:0.3375	1st Qu.: 6.070	1st Qu.:1.645	1st Qu.:0.00250	
Median :0.3450	Median : 9.420	Median :2.455	Median :0.08500	
Mean :0.3450	Mean : 9.845	Mean :2.085	Mean :0.09333	
3rd Qu.:0.3525	3rd Qu.:11.860	3rd Qu.:2.895	3rd Qu.:0.18250	
Max. :0.3600	Max. :19.710	Max. :3.270	Max. :0.20000	
NA's :9		NA's :7	NA's :5	
CER_160605	CER_160708	CER_160709	CER_161001	
Min. :0.3500	Min. : 0.78	Min. : 0.700	Min. : 6.150	
1st Qu.:0.4900	1st Qu.: 35.90	1st Qu.: 1.355	1st Qu.: 8.947	
Median :0.7500	Median : 71.02	Median : 1.900	Median :11.745	
Mean :0.8764	Mean : 72.85	Mean : 4.310	Mean :11.745	
3rd Qu.:1.1150	3rd Qu.:108.88	3rd Qu.: 4.745	3rd Qu.:14.543	
Max. :2.2300	Max. :146.74	Max. :18.860	Max. :17.340	
	NA's :8		NA's :9	
CER_161002	CER_161003	CER_161004	CER_161106	
Min. : 0.06	Min. : 0.240	Min. :576.3	Min. :4.52	
1st Qu.: 0.76	1st Qu.: 2.760	1st Qu.:576.3	1st Qu.:4.52	
Median : 10.71	Median : 4.930	Median :576.3	Median :4.52	
Mean : 49.04	Mean : 5.766	Mean :576.3	Mean :4.52	
3rd Qu.: 40.06	3rd Qu.: 8.235	3rd Qu.:576.3	3rd Qu.:4.52	
Max. :193.62	Max. :13.200	Max. :576.3	Max. :4.52	
NA's :6	NA's :4	NA's :10	NA's :10	
CER_170101	CER_170103	CER_170106	CER_170107	
Min. : 7.100	Min. :5.340	Min. :15.64	Min. : 0.40	
1st Qu.: 7.295	1st Qu.:5.455	1st Qu.:15.64	1st Qu.: 50.47	
Median :18.290	Median :5.570	Median :15.64	Median : 73.75	
Mean :22.930	Mean :5.570	Mean :15.64	Mean :108.16	
3rd Qu.:33.925	3rd Qu.:5.685	3rd Qu.:15.64	3rd Qu.:134.65	
Max. :48.040	Max. :5.800	Max. :15.64	Max. :365.38	
NA's :7	NA's :9	NA's :10		
CER_170201	CER_170202	CER_170203	CER_170204	
Min. : 2.32	Min. :0.260	Min. : 1.130	Min. : 0.620	
1st Qu.: 4.10	1st Qu.:1.020	1st Qu.: 1.945	1st Qu.: 1.350	
Median : 20.09	Median :1.960	Median : 5.300	Median : 3.770	
Mean : 33.71	Mean :3.008	Mean : 7.573	Mean : 9.562	
3rd Qu.: 27.05	3rd Qu.:5.140	3rd Qu.: 8.453	3rd Qu.:20.130	
Max. :169.27	Max. :6.660	Max. :23.380	Max. :21.940	
NA's :2	NA's :6	NA's :5	NA's :6	
CER_170301	CER_170302	CER_170401	CER_170402	
Min. :61.85	Min. : 1.480	Min. :0.770	Min. :0.0200	

1st Qu.:61.85	1st Qu.: 3.933	1st Qu.:1.028	1st Qu.:0.4550	
Median :61.85	Median : 9.910	Median :1.285	Median :0.8900	
Mean :61.85	Mean : 26.110	Mean :1.285	Mean :0.8433	
3rd Qu.:61.85	3rd Qu.: 14.500	3rd Qu.:1.542	3rd Qu.:1.2550	
Max. :61.85	Max. :117.390	Max. :1.800	Max. :1.6200	
NA's :10	NA's :5	NA's :9	NA's :8	
CER_170405	CER_170410	CER_170411	CER_170503	
Min. : 7.87	Min. :0.46	Min. : 0.020	Min. :2792	
1st Qu.: 19.99	1st Qu.:0.46	1st Qu.: 0.090	1st Qu.:2792	
Median : 32.28	Median :0.46	Median : 0.240	Median :2792	
Mean :106.66	Mean :0.46	Mean : 3.831	Mean :2792	
3rd Qu.: 91.61	3rd Qu.:0.46	3rd Qu.: 0.400	3rd Qu.:2792	
Max. :387.64	Max. :0.46	Max. :32.380	Max. :2792	
NA's :1	NA's :10	NA's :2	NA's :10	
CER_170504	CER_170506	CER_170603	CER_170604	
Min. : 0.28	Min. : NA	Min. : 12.83	Min. : 1.120	
1st Qu.: 1.55	1st Qu.: NA	1st Qu.: 58.51	1st Qu.: 4.633	
Median : 9.02	Median : NA	Median :108.61	Median :16.010	
Mean : 32.56	Mean :NaN	Mean :121.68	Mean :12.535	
3rd Qu.: 37.82	3rd Qu.: NA	3rd Qu.:146.31	3rd Qu.:18.760	
Max. :139.89	Max. : NA	Max. :342.86	Max. :20.570	
NA's :4	NA's :11		NA's :3	
CER_170605	CER_170802	CER_170903	CER_170904	
Min. :6.13	Min. : 2.220	Min. :34.4	Min. : 0.18	
1st Qu.:6.13	1st Qu.: 2.780	1st Qu.:34.4	1st Qu.: 173.47	
Median :6.13	Median : 3.340	Median :34.4	Median : 466.16	
Mean :6.13	Mean : 5.393	Mean :34.4	Mean : 509.50	
3rd Qu.:6.13	3rd Qu.: 6.980	3rd Qu.:34.4	3rd Qu.: 711.62	
Max. :6.13	Max. :10.620	Max. :34.4	Max. :1196.71	
NA's :10	NA's :8	NA's :10		
CER_180103	CER_180109	CER_190105	CER_190205	CER_190206
Min. :0.020	Min. :0.3000	Min. :2.18	Min. :84	Min. :290.2
1st Qu.:0.045	1st Qu.:0.3600	1st Qu.:2.18	1st Qu.:84	1st Qu.:290.2
Median :0.080	Median :0.4600	Median :2.18	Median :84	Median :290.2
Mean :0.210	Mean :0.5882	Mean :2.18	Mean :84	Mean :290.2
3rd Qu.:0.110	3rd Qu.:0.6150	3rd Qu.:2.18	3rd Qu.:84	3rd Qu.:290.2
Max. :1.490	Max. :1.6600	Max. :2.18	Max. :84	Max. :290.2
		NA's :10	NA's :10	NA's :10
CER_190207	CER_190801	CER_190802	CER_190805	CER_190809
Min. :8.3	Min. :13.50	Min. : 2.90	Min. : 0.02	Min. : 0.02
1st Qu.:8.3	1st Qu.:16.16	1st Qu.: 7.67	1st Qu.: 1.07	1st Qu.:19.53
Median :8.3	Median :18.82	Median :12.44	Median : 7.51	Median :39.04
Mean :8.3	Mean :18.82	Mean :12.44	Mean :10.67	Mean :39.04
3rd Qu.:8.3	3rd Qu.:21.49	3rd Qu.:17.21	3rd Qu.:19.92	3rd Qu.:58.55
Max. :8.3	Max. :24.15	Max. :21.98	Max. :26.23	Max. :78.06
NA's :10	NA's :9	NA's :9		NA's :9
CER_190810	CER_190813	CER_190814	CER_190902	CER_190904
Min. :0.020	Min. :81.25	Min. : 1.02	Min. :6.1	Min. :0.02
1st Qu.:0.250	1st Qu.:81.25	1st Qu.: 1.85	1st Qu.:6.1	1st Qu.:0.02
Median :0.480	Median :81.25	Median : 8.36	Median :6.1	Median :0.02
Mean :1.507	Mean :81.25	Mean :111.07	Mean :6.1	Mean :0.04
3rd Qu.:2.250	3rd Qu.:81.25	3rd Qu.: 87.12	3rd Qu.:6.1	3rd Qu.:0.04

Max. :4.020	Max. :81.25	Max. :457.01	Max. :6.1	Max. :0.10
NA's :8	NA's :10	NA's :6	NA's :10	NA's :7
CER_191202	CER_191204	CER_191207	CER_191212	
Min. :12.02	Min. :25.18	Min. :6.02	Min. : 0.02	
1st Qu.:12.02	1st Qu.:25.18	1st Qu.:6.02	1st Qu.: 0.37	
Median :12.02	Median :25.18	Median :6.02	Median : 5.51	
Mean :12.02	Mean :25.18	Mean :6.02	Mean : 338.49	
3rd Qu.:12.02	3rd Qu.:25.18	3rd Qu.:6.02	3rd Qu.: 550.32	
Max. :12.02	Max. :25.18	Max. :6.02	Max. :1136.22	
NA's :10	NA's :10	NA's :10	NA's :6	
CER_191307	CER_191308	CER_200101	CER_200102	
Min. :17.24	Min. :22.58	Min. : 4.290	Min. : 0.010	
1st Qu.:17.24	1st Qu.:22.58	1st Qu.: 8.988	1st Qu.: 9.107	
Median :17.24	Median :22.58	Median :13.685	Median : 30.010	
Mean :17.24	Mean :22.58	Mean :13.685	Mean : 66.873	
3rd Qu.:17.24	3rd Qu.:22.58	3rd Qu.:18.383	3rd Qu.: 87.775	
Max. :17.24	Max. :22.58	Max. :23.080	Max. :207.460	
NA's :10	NA's :10	NA's :9	NA's :7	
CER_200108	CER_200110	CER_200111	CER_200121	CER_200125
Min. : 40.28	Min. :3.8	Min. : 6.46	Min. :1.100	Min. : 1.53
1st Qu.:114.76	1st Qu.:3.8	1st Qu.:10.71	1st Qu.:1.785	1st Qu.: 9.32
Median :176.28	Median :3.8	Median :14.96	Median :2.780	Median :29.52
Mean :259.80	Mean :3.8	Mean :14.96	Mean :3.033	Mean :36.46
3rd Qu.:281.86	3rd Qu.:3.8	3rd Qu.:19.21	3rd Qu.:3.710	3rd Qu.:62.46
Max. :685.82	Max. :3.8	Max. :23.46	Max. :6.650	Max. :80.66
NA's :6	NA's :10	NA's :9		
CER_200130	CER_200132	CER_200138	CER_200139	
Min. :0.0100	Min. :2.1	Min. : 4.20	Min. : 0.270	
1st Qu.:0.2275	1st Qu.:2.1	1st Qu.: 15.62	1st Qu.: 1.167	
Median :0.4300	Median :2.1	Median : 20.08	Median : 6.875	
Mean :0.6250	Mean :2.1	Mean : 78.20	Mean : 29.308	
3rd Qu.:0.8275	3rd Qu.:2.1	3rd Qu.: 87.86	3rd Qu.: 12.762	
Max. :1.6300	Max. :2.1	Max. :376.66	Max. :147.840	
NA's :7	NA's :10	NA's :2	NA's :5	
CER_200140	CER_200201	CER_200301	CER_200303	
Min. :0.02	Min. : 8.71	Min. :2240	Min. : 0.01	
1st Qu.:0.02	1st Qu.:19.61	1st Qu.:3196	1st Qu.: 34.41	
Median :0.02	Median :30.52	Median :4415	Median : 55.52	
Mean :0.02	Mean :38.14	Mean :4401	Mean : 69.75	
3rd Qu.:0.02	3rd Qu.:52.85	3rd Qu.:5699	3rd Qu.: 68.05	
Max. :0.02	Max. :75.18	Max. :6781	Max. :190.78	
NA's :10	NA's :8		NA's :6	
CER_200304	CER_200306	CER_200307		
Min. : 4.35	Min. :2916	Min. : 21.77		
1st Qu.: 28.79	1st Qu.:3716	1st Qu.: 35.07		
Median : 88.75	Median :4517	Median : 77.50		
Mean :1312.91	Mean :4626	Mean : 200.04		
3rd Qu.:1862.67	3rd Qu.:5481	3rd Qu.: 213.00		
Max. :5305.39	Max. :6445	Max. :1067.22		
NA's :1	NA's :8			

ANNEX - DATASET HEATMAP

