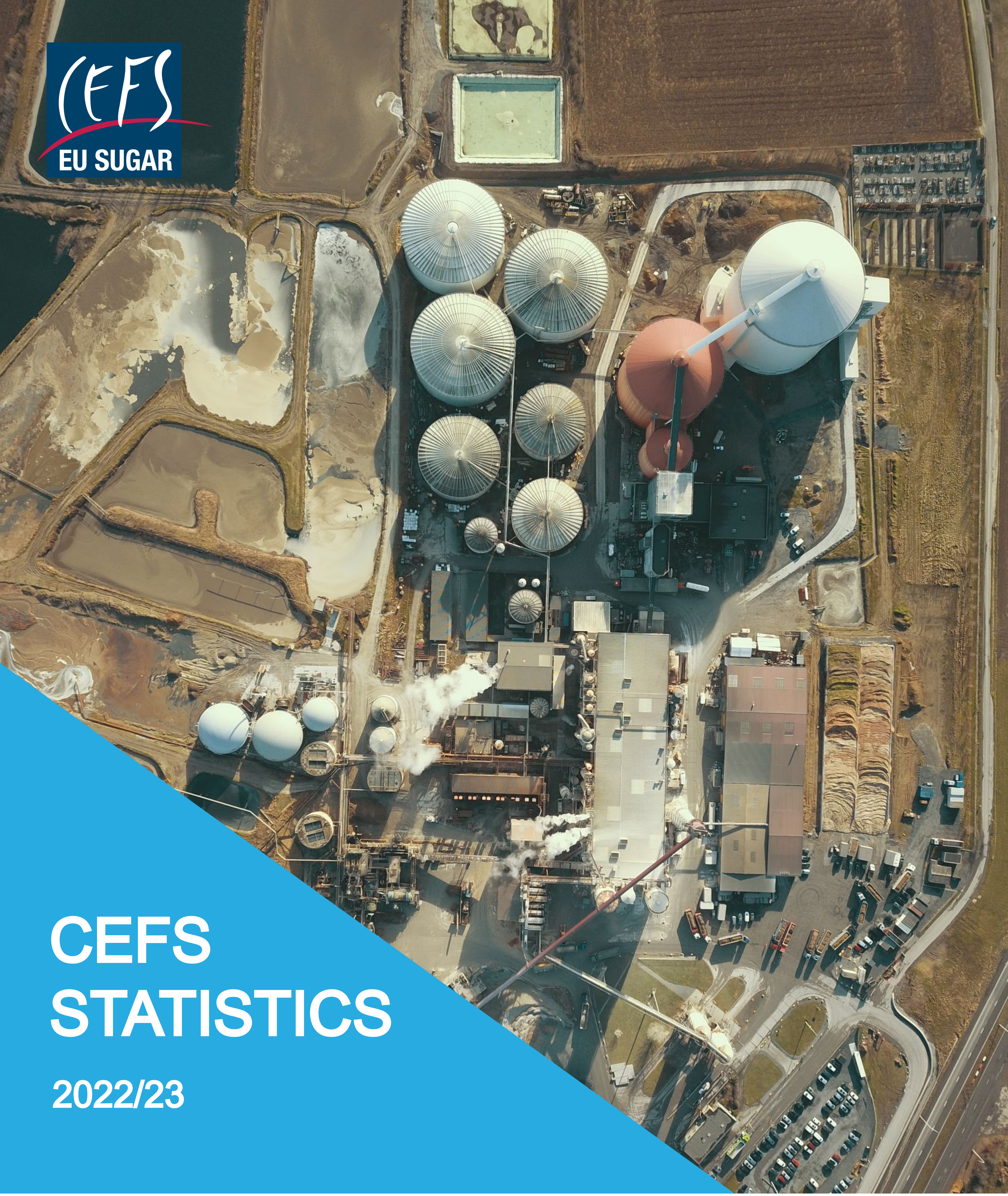


CEFS STATISTICS

2022/23

Photo credit: Iscal Sugar

March 2024

EXECUTIVE SUMMARY

- 2022/23 was a particularly challenging campaign, with extreme climatic conditions in some regions and a spike in energy prices forcing operators to adopt mitigating measures.

- The EU produced almost 14.4 million tonnes of beet sugar during the 2022/23 campaign, down 11.5% on the previous year.

- Lower sugar production was due to a sharp drop in EU sugar yields, which in 2022/23 averaged just 10.5 tonnes of sugar per hectare – down 11.6% on 2021/22 and the lowest level since EU27 figures have been available (2010/11).

- In 2022/23 the EU average sugar content in beets decreased marginally, from 17.36% in 2021/22 to 17.20% in 2022/23.

- The length of an average EU sugar production campaign in 2022/23 was 117 days, down from 119 days in 2021/22.

- 88 factories took part in the 2022/23 beet sugar production campaign, down from 89 in 2021/22 with the closure of one factory in Romania.

- Employment in the EU beet sugar industry remained relatively stable in 2022/23, with approximately 24,000 workers directly employed by the industry (both permanently and seasonally).

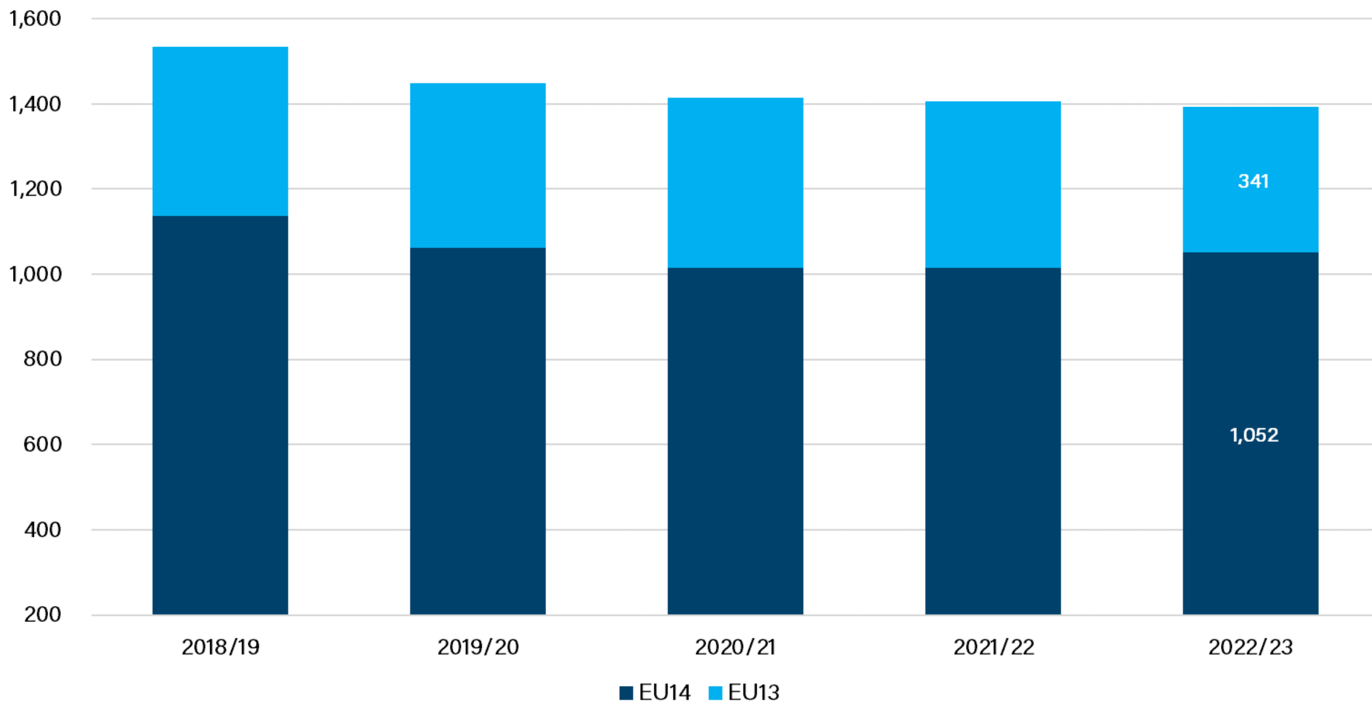
- The number of EU sugar beet growers supplying sugar factories during the 2022/23 campaign declined to 98,000, falling below 100,000 for the first time.

Photo credit: visme stock imagery

1. AREAS

Contracted sugar beet areas in the EU experienced a marginal decrease of 0.8% in the 2022/23 period, marking the fifth consecutive year of decline. This trend persisted despite the uptick in beet prices, attributable to the resurgence of the EU market price for white sugar.

Figure 1: Beet areas (thousand ha) in the EU27 (EU14+EU13)

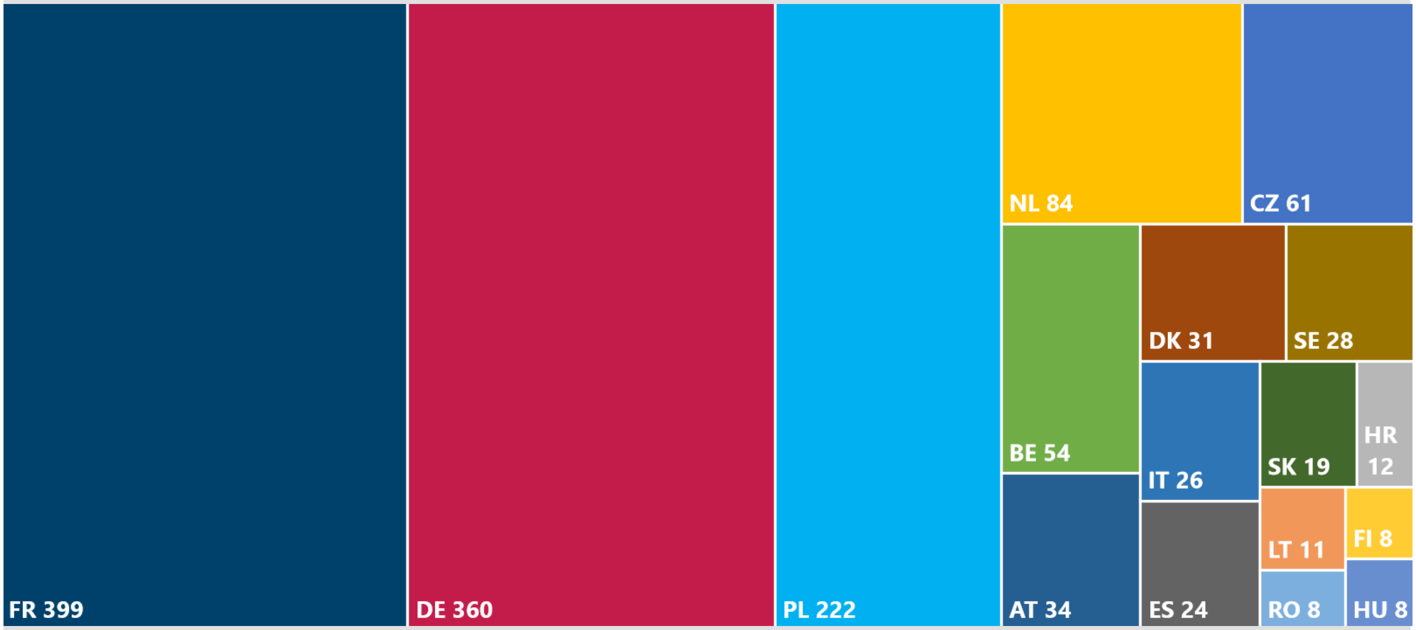


	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
EU27	1,417	1,402	1,453	1,239	1,344	1,567	1,533	1,449	1,413	1,405	1,393
EU14	1,060	1,048	1,077	925	987	1,175	1,137	1,063	1,016	1,015	1,052
EU13	356	354	377	314	357	392	395	386	397	390	341

1.4 million ha

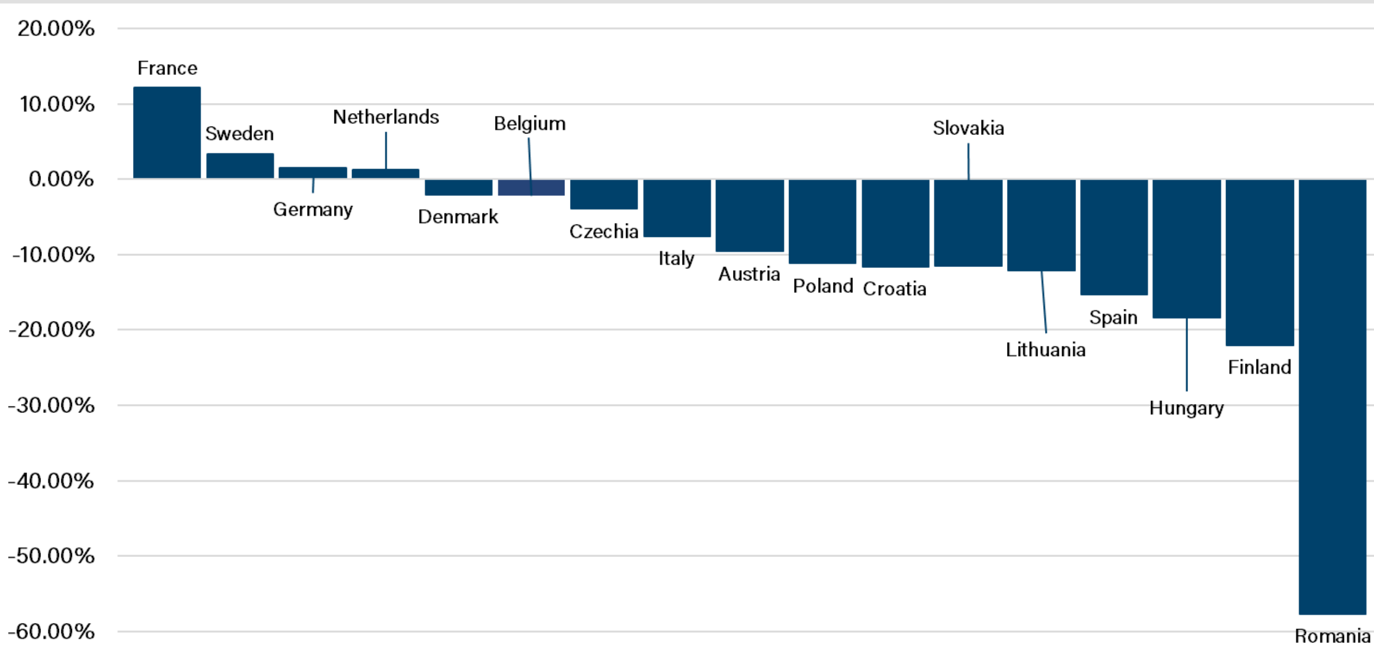
EU average sugar beet areas over the past five years

Figure 2: EU sugar beet areas 2022/23 (000 ha), by Member State

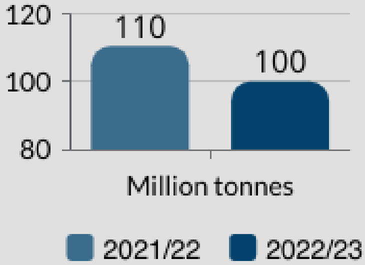


Regarding EU sugar beet areas by Member State, Romania saw the most substantial reduction in contracted areas, decreasing by 58% compared to 2021/22, in part due to the closure of one factory. Finland followed with a reduction of 22%. Conversely, France and Sweden expanded their contracted areas, with increases of 12% and 4%, respectively, compared to the previous period.

Figure 3: EU sugar beet area variation (%), 2022/2023 vs 2022/2021, by Member State



2. PAID BEET

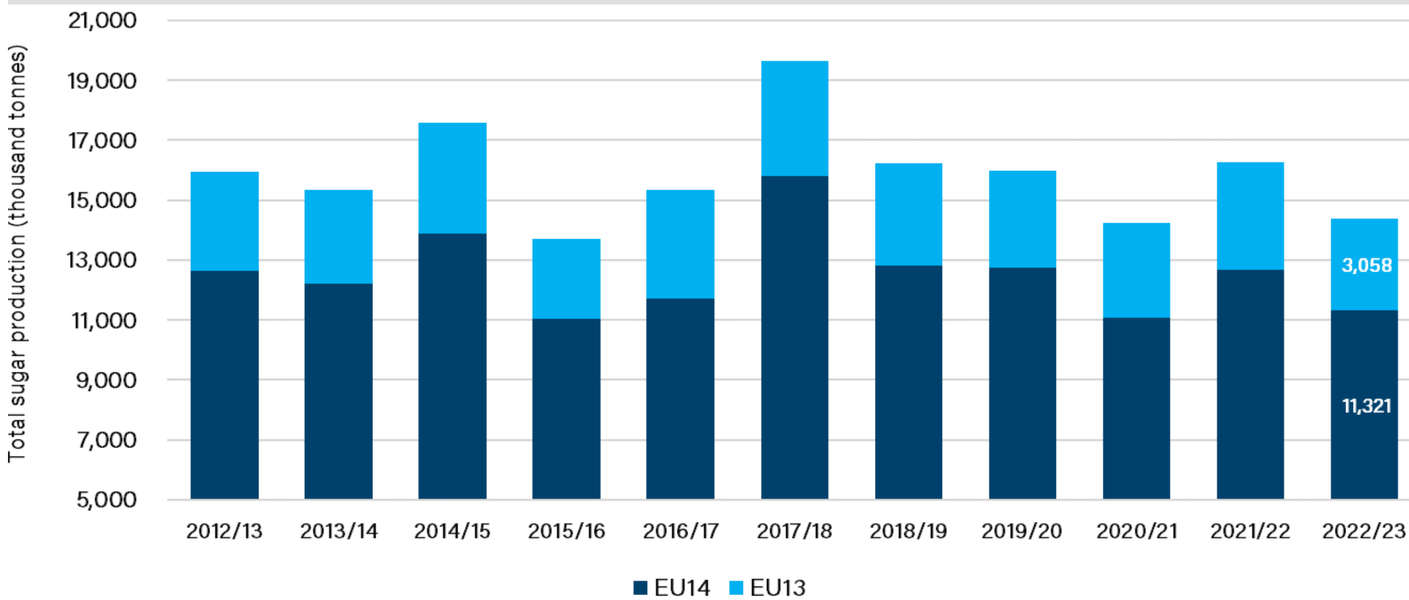


The total EU paid beet for 2022/23 was 100 million tonnes – 10 million tonnes less than 2021/22.

3. PRODUCTION

Total EU beet sugar production fell to 14.4 million tonnes during the 2022/23 campaign. This is a decrease of 11.5% compared to 2021/22 production. The decline in production can largely be explained by poor climactic conditions, leading to lower sugar yields (see below). Production may also have been negatively affected by the spike in energy prices, which caused operators to adopt mitigation measures such as earlier start and finish to production campaigns in order to avoid the months of peak energy demand; and transport of beets to factories less vulnerable to energy price shocks.

Figure 4: Total sugar production (thousand tonnes) in the EU27 (EU14 + EU13)

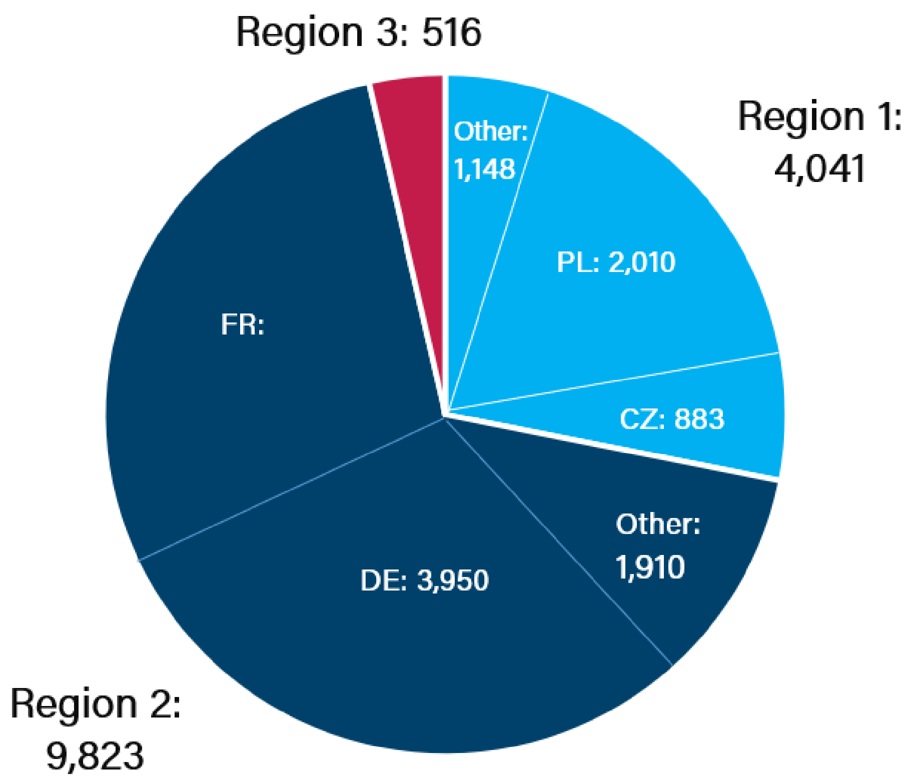


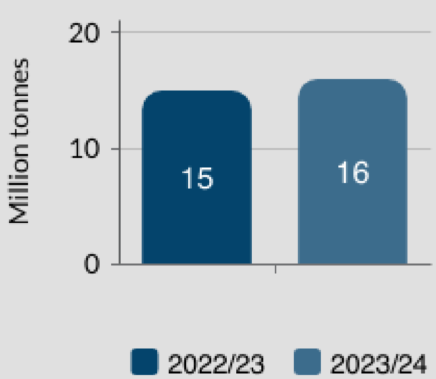
	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
EU27	15,952	15,356	17,588	13,709	15,358	19,638	16,230	15,988	14,230	16,255	14,379
EU14	12,652	12,200	13,877	11,048	11,717	15,796	12,820	12,743	11,086	12,685	11,321
EU13	3,300	3,155	3,711	2,661	3,641	3,842	3,410	3,245	3,143	3,570	3,058

Among EU Member States, France saw its sugar production fall by 12% but remained the largest sugar producer in the EU. Germany, the EU's second largest sugar producer, experienced a decrease of 13% in production, while Poland and Czechia saw reductions of 12% and 5% respectively.

As for the other EU member states, production data can only be presented by region in accordance with new EU regulations.

Figure 5: Total sugar production by region (thousand tonnes rounded)





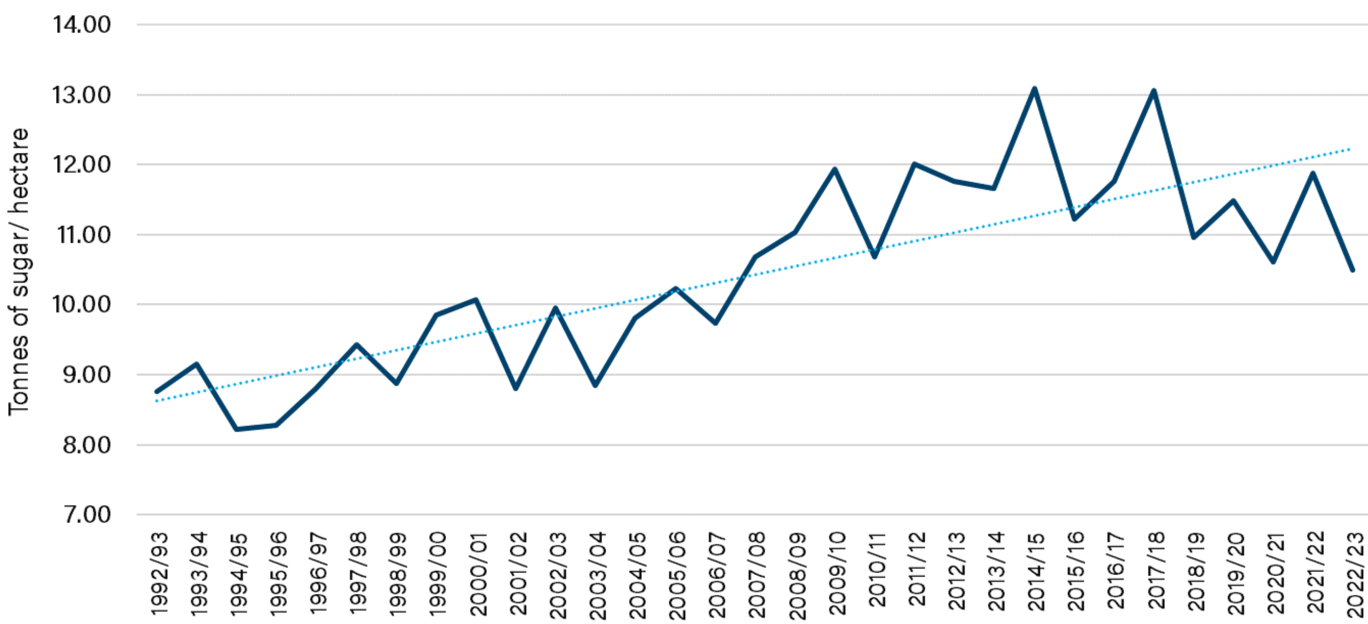
Production in 2023/24 is expected to be around 16 million tonnes.

4. SUGAR YIELDS

Sugar yield is a function of sugar production divided by contracted beet areas. Although EU sugar beet areas remain among the highest in the world, boosting yields has proven increasingly complex over the past ten years due to the decreasing availability of plant protection products and increasingly volatile and unpredictable weather conditions.

In 2022/23 average EU sugar yields stood at just 10.5 tonnes of sugar per hectare. This was down 11.6% on 2021/22 and the lowest level since EU27 figures have been available (2010/11). Looking at the chart below it can be seen that sugar yields have stagnated over the past decade or more.

Figure 6: Sugar yields EU27, tonnes/ha



	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
EU27	11.76	11.66	13.10	11.23	11.76	13.05	10.96	11.49	10.61	11.87	10.50
EU14	11.93	11.83	13.28	11.58	11.98	13.66	11.45	12.15	11.14	12.62	10.92
EU13	9.38	9.04	10.04	8.46	10.26	9.91	8.74	8.49	8.05	9.23	8.95

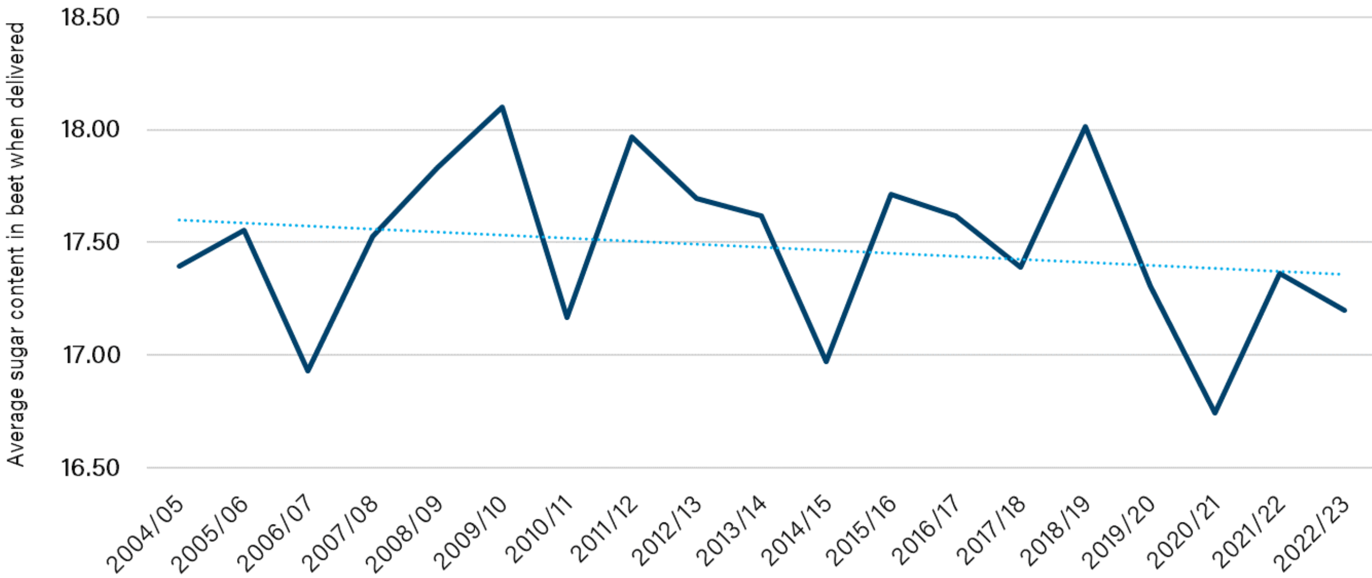
11.1 t/ ha

Average sugar yield in EU over the past 5 years

5. SUGAR CONTENT

Sugar content is highly dependent on the weather. Sunshine increases the sugar content in beets. In 2022/23, EU average sugar content in beets decreased by 0.16 percentage points, from 17.36% in 2021/22 to 17.2% in 2022/23. Sugar content in beets has been stagnant since 2004/05.

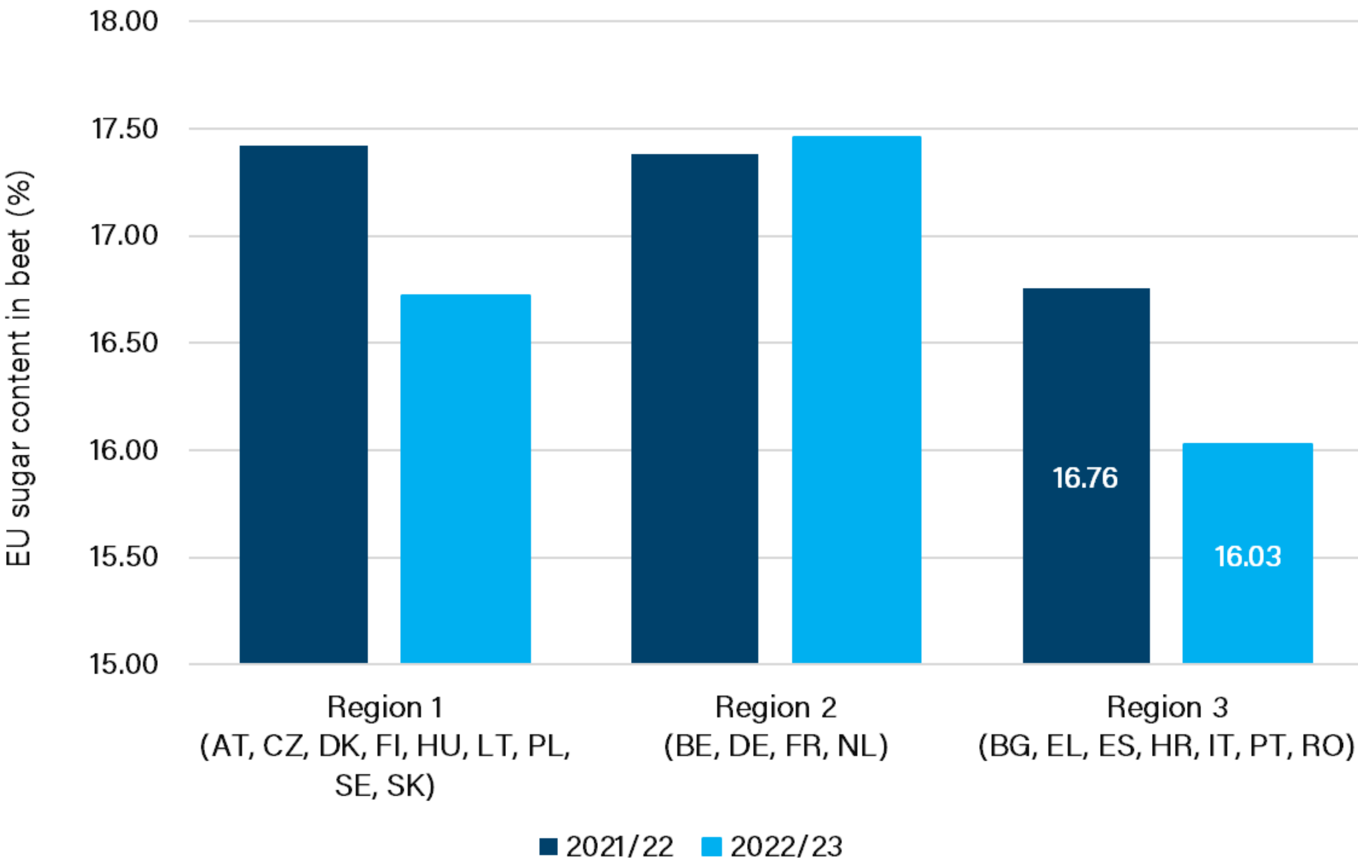
Figure 7: Average sugar content in beet when delivered (%) in EU27



	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
EU27	17.70	17.62	16.97	17.71	17.62	17.39	18.01	17.31	16.74	17.36	17.20
EU14	17.02	17.30	16.36	17.19	16.99	17.02	17.33	16.72	15.59	17.32	16.49
EU13	17.88	17.70	17.15	17.84	17.83	17.48	18.21	17.47	17.11	17.37	17.39

Sugar content fell in two of the three sugar production regions defined by the European Commission. Only in region 2 (the “core” region comprising Belgium, Germany, France and the Netherlands) did sugar content increase in 2022/23 year over year.

Figure 8: EU sugar content in beet (%), 2022/2023 and 2021/2022, by region



17%

Average sugar content in beet when delivered over the past 5 years (EU27)

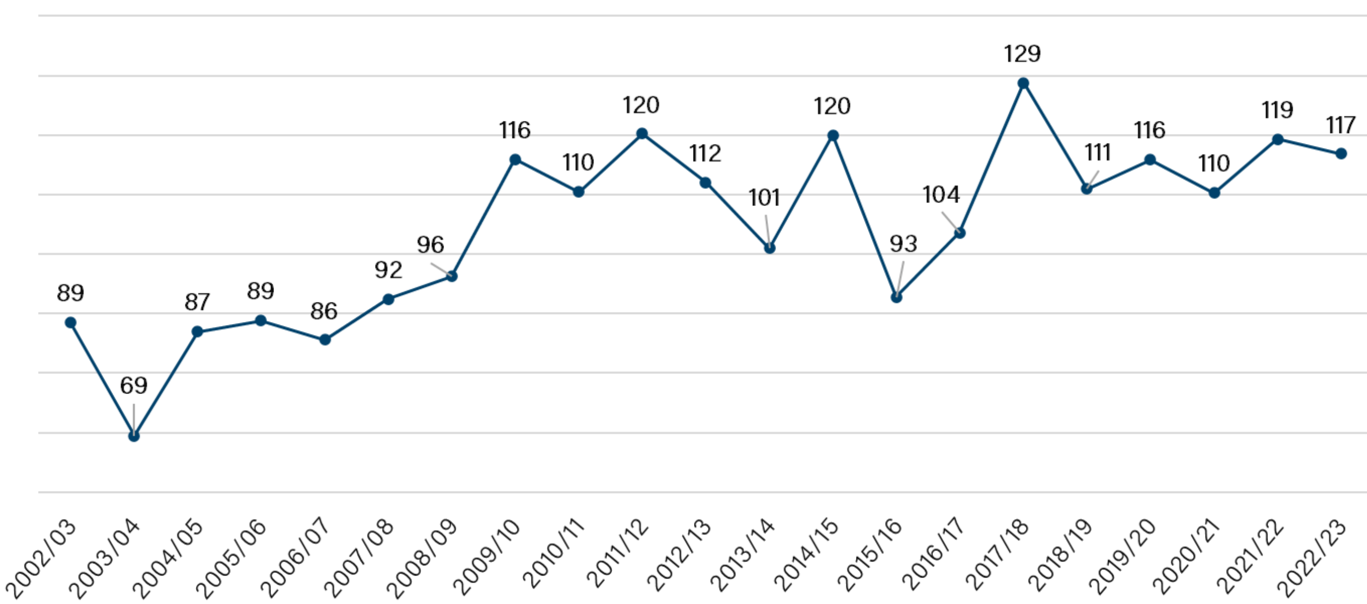
6. CAMPAIGN LENGTH

Sugar production is seasonal and takes place during processing campaigns of around 90-150 days. Since it is not possible to store sugar beet for long periods, year-round production of beet sugar is not possible.

Longer campaigns allow for more efficient factory capacity utilisation, leading to better distribution of fixed costs per tonne of sugar produced. Campaign lengths have increased substantially over the past twenty years as European sugar producers have worked to increase their competitiveness.

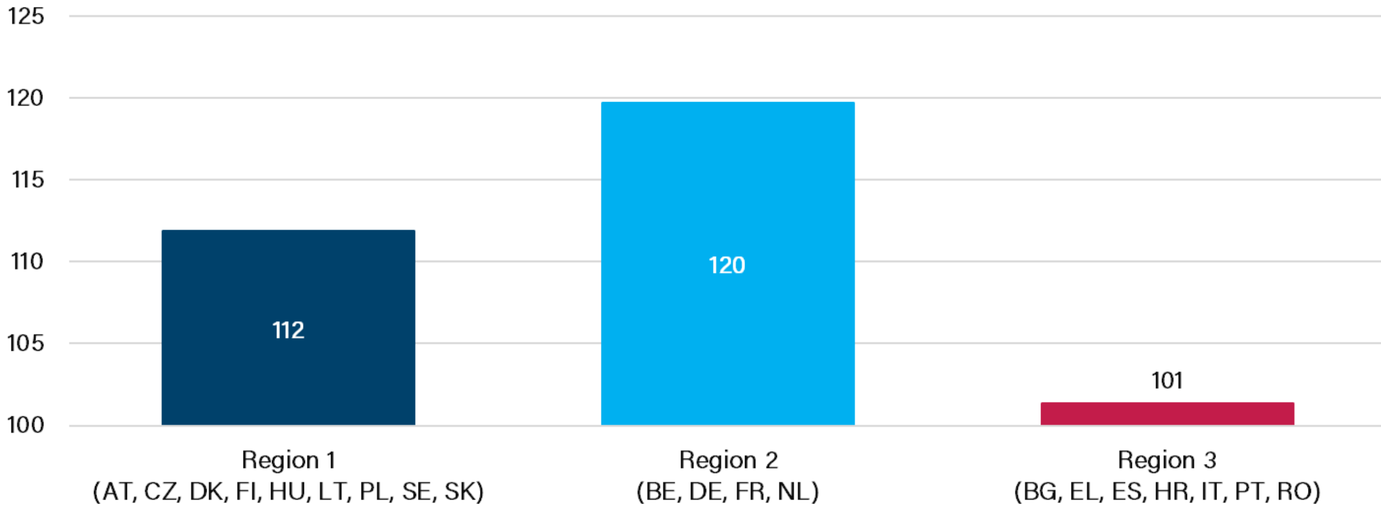
The length of an average EU sugar production campaign in 2022/23 was 117 days, slightly down on the 119 days in 2021/22 (see chart below).

Figure 9: Average campaign length in the EU27 over the last 20 years (days)



The shortest campaigns in the EU can be found in Southern Europe (Region 3), with an average of 101 days in 2022/23. Campaigns averaged 112 days in region 1 and 120 days in region 2.

Figure 10: Average campaign length in EU regions in 2021/22 (days)



115 days

Average campaign length across EU27 over the past 5 years (visual)

7. FACTORIES

In 2022/23 the total number of beet sugar factories in the EU fell for the fifth consecutive year. With the closure of one beet sugar factory in Romania during the 2022/23 campaign, 88 factories were operational across the EU. Most EU beet sugar factories are located in three countries – namely France, Germany and Poland.

Figure 11: Number of EU beet sugar factories over the last ten years

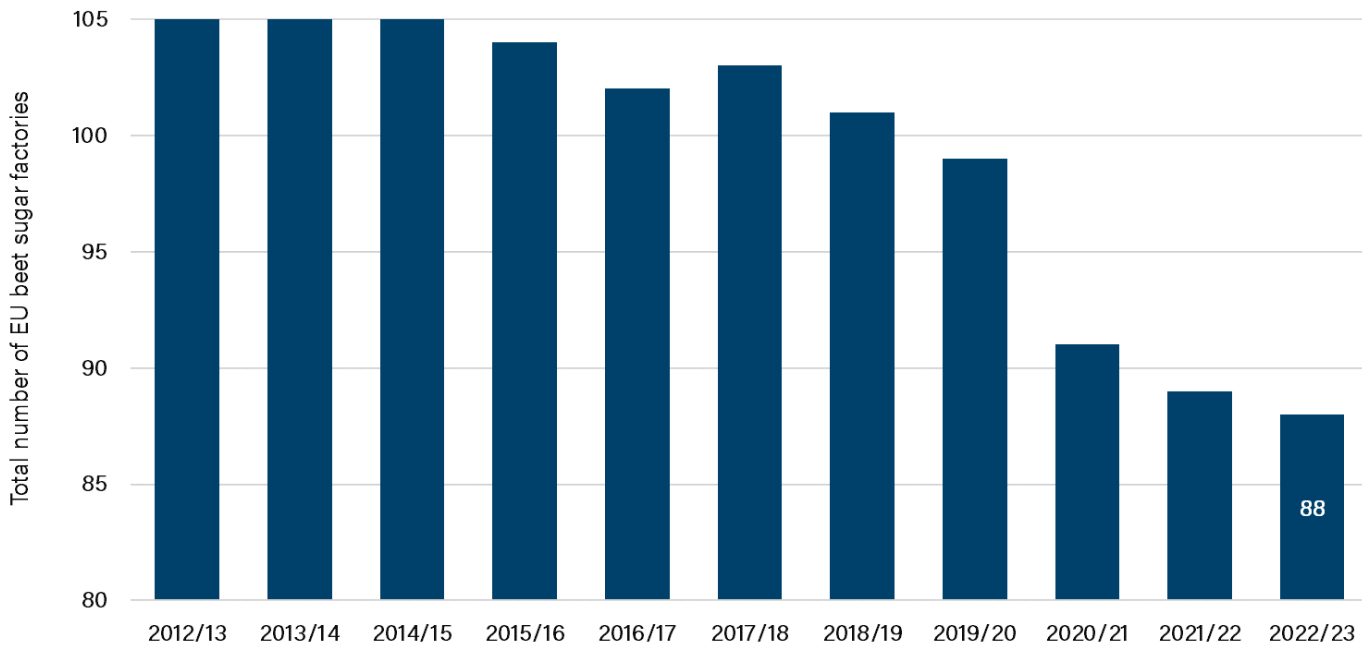
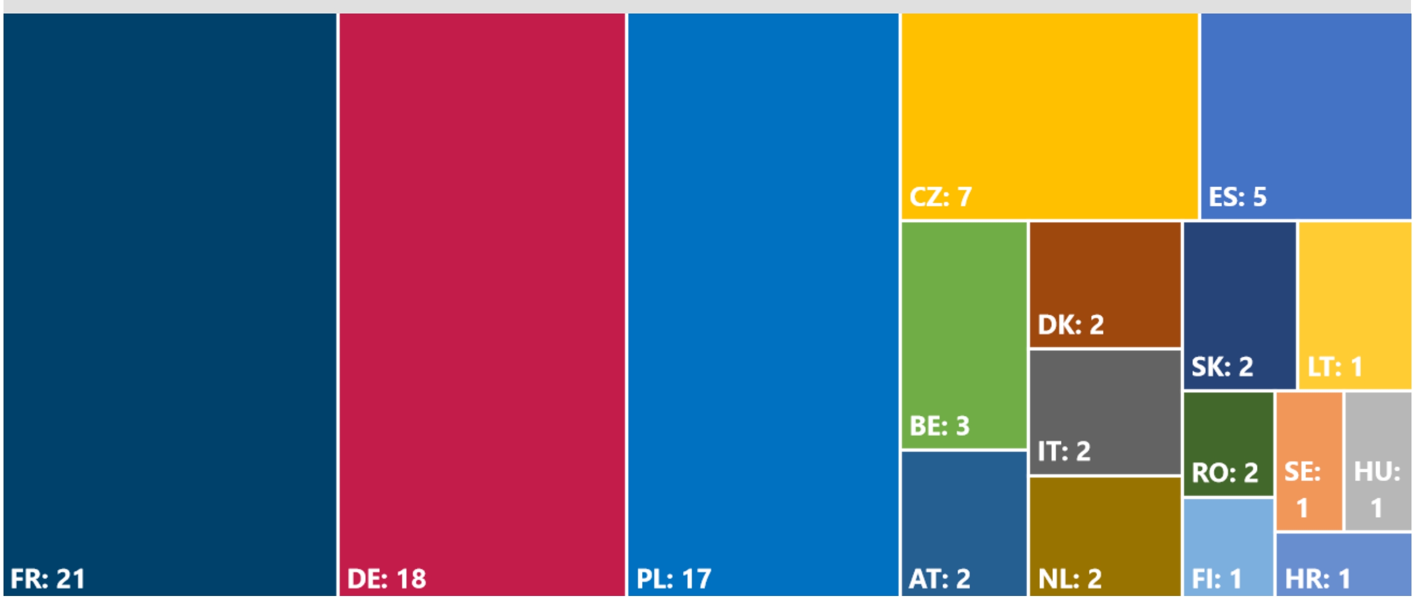


Figure 12: Number of EU beet sugar factories per Member State



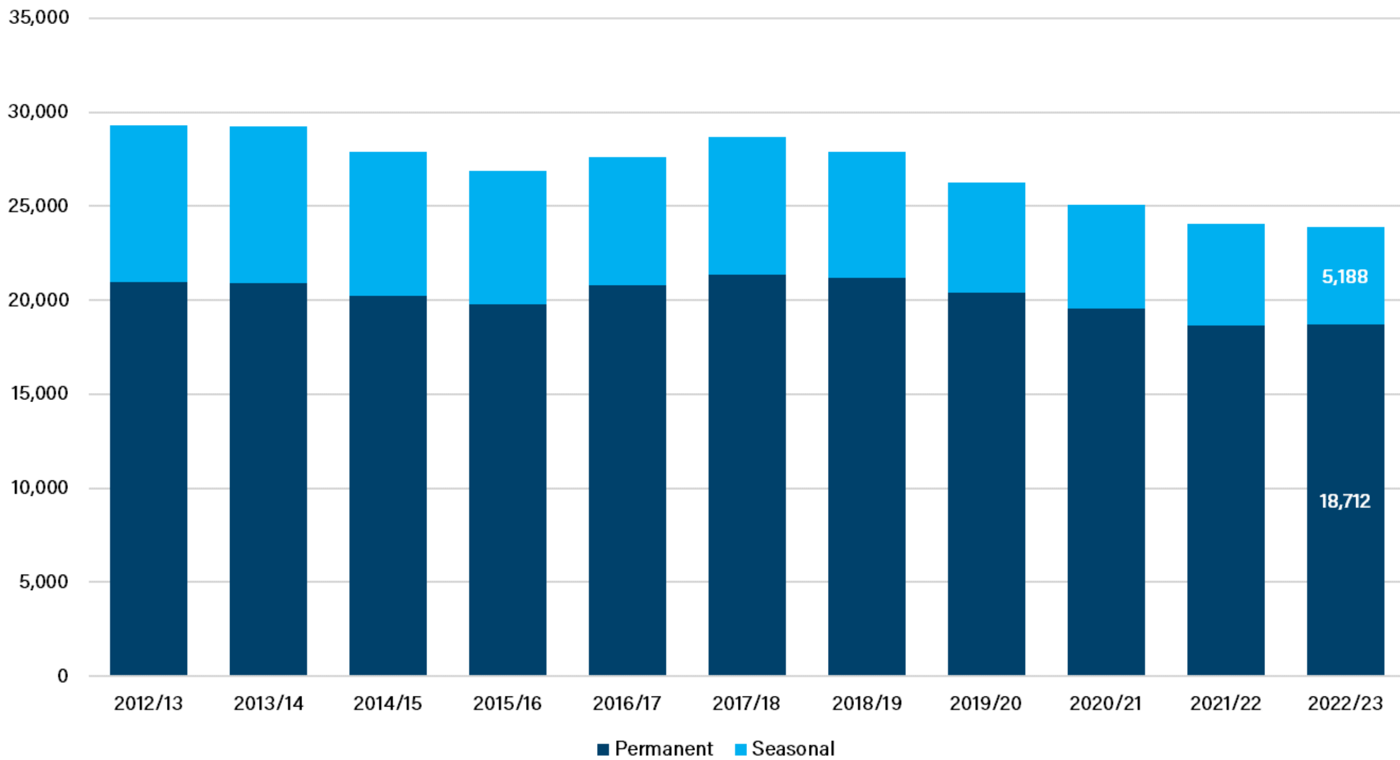
8. EMPLOYMENT

Because of the campaign-based nature of sugar production, a substantial proportion of employment is seasonal.

During the 2022/23 campaign almost 23,900 workers were directly employed in sugar production, of which 18,712 permanent and 5,188 seasonal. Total employment was rather stable year over year, down slightly from 24,083.

Since 2017/18 4,775 fewer people have been directly employed by the EU beet sugar industry.

Figure 13: Sugar industry employment during the beet processing campaign



	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Permanent	20,968	20,922	20,243	19,808	20,797	21,368	21,174	20,399	19,560	18,635	18,712
Seasonal	8,348	8,334	7,637	7,095	6,840	7,307	6,714	5,838	5,533	5,448	5,188
Total	29,316	29,256	27,880	26,904	27,637	28,675	27,888	26,237	25,093	24,083	23,900

Figure 14: Sugar industry employment during the beet processing campaign by region

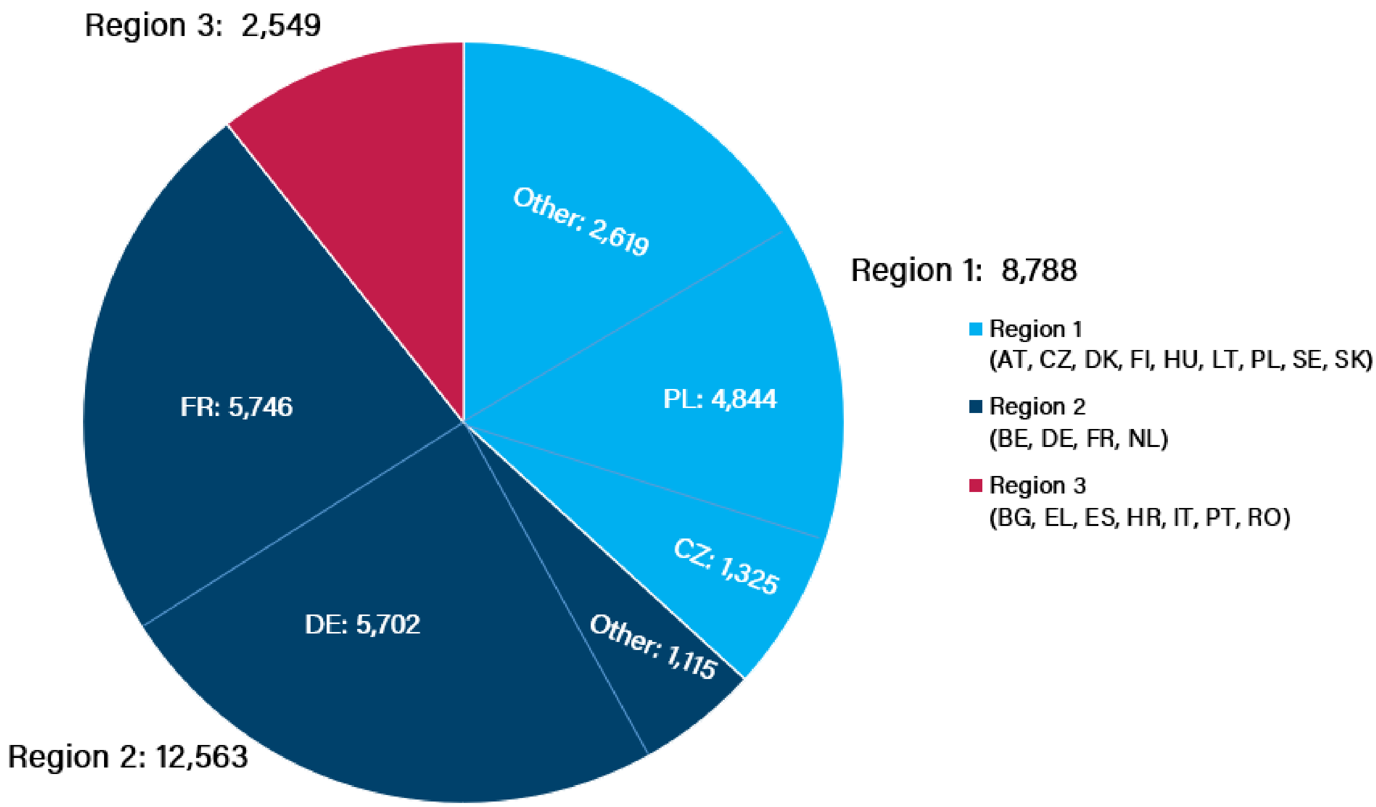
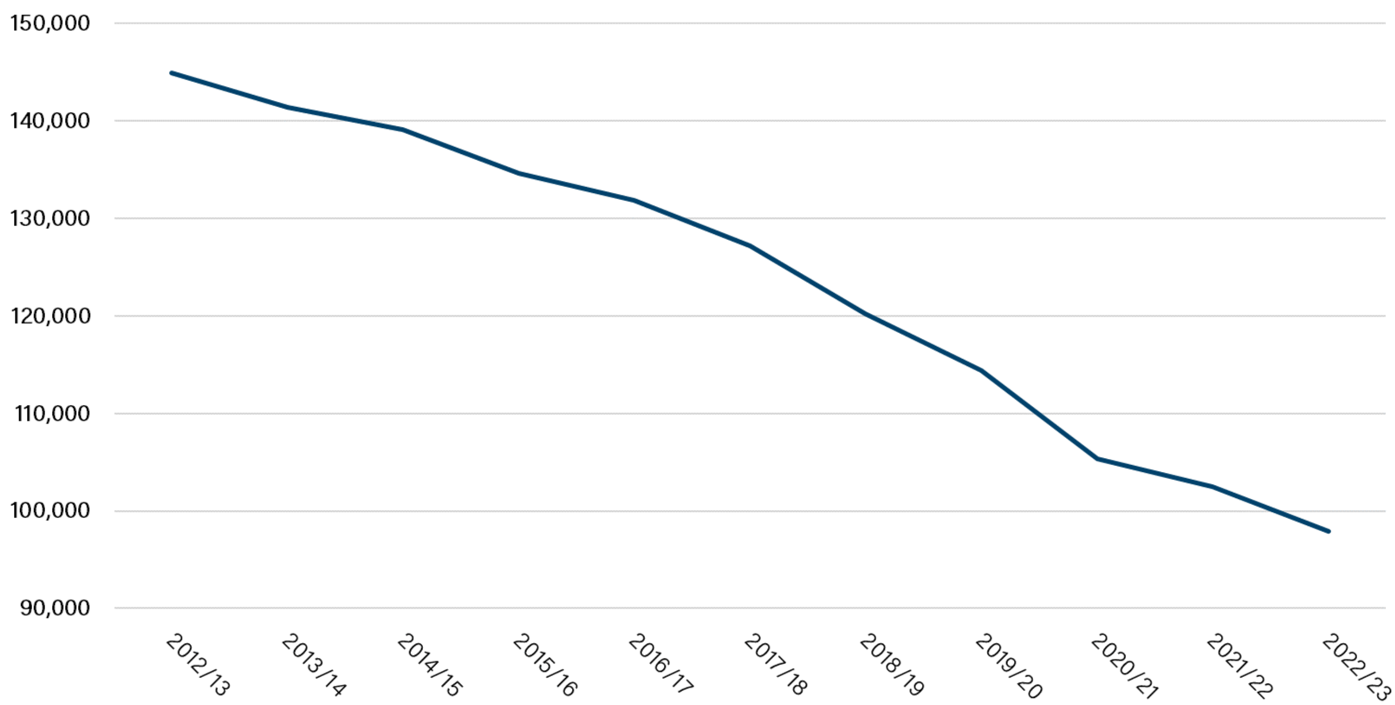


Photo credit: istock

9. BEET GROWERS

In 2022/23 97,909 growers supplied beets to EU sugar factories. This marks the first year in which the number of EU beet growers supplying sugar factories has fallen below 100,000. Compared to 2021/22, the number of sugar beet growers in the EU fell by 4.5%.

Figure 15: Number of beet growers in the EU over the last 10 years



	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
EU27	144,899	141,405	139,067	134,601	131,864	127,147	120,179	114,393	105,374	102,528	97,909
EU14	105,169	101,945	100,514	96,825	94,514	89,382	83,841	80,919	73,429	72,723	71,466
EU13	39730	39,460	38,553	37,776	37,350	37,765	36,338	33,474	31,945	29,805	26,443

98,000

Growers supplied beets to EU sugar factories in 2022/23

11. METHODOLOGY

- The information contained in this report is collected from CEFS members on a confidential basis.
- ‘EU’ refers to the 27 current Member States of the European Union. This grouping is used as a consistent basis for the historical EU data series in the annex.
- ‘EU14’ refers to the following EU Member States: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, Spain and Sweden.
- ‘EU13’ refers to the following EU Member States: Bulgaria, Croatia, Czechia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia.
- ‘Region 1’ covers the following EU Member States: Austria, Czechia, Denmark, Finland, Hungary, Lithuania, Poland, Slovakia and Sweden.
- ‘Region 2’ covers the following EU Member States: Belgium, France, Germany and the Netherlands.
- ‘Region 3’ covers the following EU Member States: Bulgaria, Croatia, Greece, Italy, Portugal, Romania and Spain (please note that Bulgaria, Portugal and Greece are not sugar producing countries).
- A sensitivity analysis is conducted on the basis of the final production and areas figures published by the European Commission: where member areas/production data are found to diverge by more than 5% from the final figures of the European Commission, the Commission’s figures are used.
- Aggregated averages for sugar content are weighted by paid beet production.
- Aggregated averages for campaign length and sugar yield are weighted by sugar production.

Photo credit: CEFS

ANNEX

ANNEX

Harvested areas for beet sugar production (ha)	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Variation	5 year Average
EU27	1,416,624	1,401,642	1,453,207	1,238,650	1,344,092	1,567,115	1,532,860	1,449,111	1,413,127	1,405,373	1,392,756	-0.90%	1,438,645
EU14	1,060,295	1,047,823	1,076,698	925,147	986,777	1,175,223	1,137,409	1,062,810	1,015,820	1,015,325	1,051,721	3.58%	1,056,617
EU13	356,329	353,819	376,509	313,503	357,315	391,892	395,451	386,301	397,307	390,048	341,035	-12.57%	382,028
Region 1 (AT, CZ, DK, FI, HU, LT, PL, SE, SK)	441,643	436,273	446,614	376,443	423,581	461,715	463,235	444,233	462,518	468,533	426,344	-9.00%	452,973
Region 2 (BE, DE, FR, NL)	822,546	830,387	845,414	744,570	797,826	975,861	962,120	905,046	861,599	849,413	898,094	5.73%	895,254
Region 3 (BG, EL, ES, HR, IT, PT, RO)	143,126	129,183	154,179	112,752	117,385	123,322	106,205	98,232	89,010	87,427	68,318	-21.86%	89,838

Paid beet (tonnes, milllions)	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
EU27	99.1	94.4	116.5	85.0	98.4	126.6	102.0	104.1	95.8	110.4	99.9

Total sugar production (tonnes)	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Variation	5 year Average
EU27	15,952,207	15,355,515	17,587,793	13,709,367	15,357,728	19,638,010	16,230,297	15,988,249	14,229,739	16,255,141	14,379,152	-11.54%	15,416,516
EU14	12,651,763	12,200,405	13,876,709	11,048,152	11,716,743	15,796,225	12,820,419	12,743,037	11,086,288	12,684,917	11,321,152	-10.75%	12,131,163
EU13	3,300,444	3,155,110	3,711,084	2,661,215	3,640,985	3,841,785	3,409,878	3,245,212	3,143,451	3,570,224	3,057,999	-14.35%	3,285,353
Region 1 (AT, CZ, DK, FI, HU, LT, PL, SE, SK)	4,355,423	4,102,558	4,562,553	3,465,245	4,528,535	4,672,156	4,175,477	4,016,317	4,015,268	4,544,712	4,040,622	-11.09%	4,158,479
Region 2 (BE, DE, FR, NL)	9,959,711	9,697,323	11,027,404	8,766,692	9,300,046	13,695,054	11,212,790	11,099,294	9,376,680	10,919,609	9,823,021	-10.04%	10,486,279
Region 3 (BG, EL, ES, HR, IT, PT, RO)	1,637,073	1,555,634	1,997,836	1,477,430	1,529,147	1,270,801	842,030	872,638	837,791	790,820	515,508	-34.81%	771,757

Sugar yield (t/ha)	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Variation	5 year Average
EU27	11.76	11.66	13.10	11.23	11.76	13.05	10.96	11.49	10.61	11.97	10.50	-11.57%	11.09
EU14	11.93	11.83	13.28	11.58	11.98	13.66	11.45	12.15	11.14	12.62	10.92	-13.46%	11.65
EU13	9.38	9.04	10.04	8.46	10.26	9.91	8.74	8.49	8.05	9.23	8.95	-3.08%	8.69
Region 1 (AT, CZ, DK, FI, HU, LT, PL, SE, SK)	8.41	8.45	9.04	7.93	9.54	9.23	8.22	8.13	7.67	8.81	8.51	-3.42%	8.27
Region 2 (BE, DE, FR, NL)	12.26	12.02	13.65	11.90	12.28	14.06	11.71	12.32	11.08	12.87	11.02	-14.38%	11.80
Region 3 (BG, EL, ES, HR, IT, PT, RO)	10.73	10.21	11.69	9.95	10.11	10.75	8.72	9.89	10.48	9.74	8.12	-16.66%	9.39

Sugar content (%)	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Variation	5 year Average
EU27	17.70	17.62	16.97	17.71	17.62	17.39	18.01	17.31	16.74	17.36	17.20	-0.95%	17.33
EU14	17.88	17.70	17.15	17.84	17.83	17.48	18.21	17.47	17.11	17.37	17.39	0.10%	17.51
EU13	17.02	17.30	16.36	17.19	16.99	17.02	17.33	16.72	15.59	17.32	16.49	-4.77%	16.69
Region 1 (AT, CZ, DK, FI, HU, LT, PL, SE, SK)	17.13	17.58	16.59	17.51	17.34	17.13	17.53	16.76	15.93	17.42	16.72	-4.01%	16.87
Region 2 (BE, DE, FR, NL)	18.05	17.78	17.43	18.04	18.01	17.67	18.49	17.68	17.19	17.38	17.46	0.43%	17.64
Region 3 (BG, EL, ES, HR, IT, PT, RO)	16.86	16.26	15.13	15.89	15.74	15.49	14.93	15.58	16.01	16.76	16.03	-4.35%	15.86

Campaign length (days)	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Variation	5 year Average
EU27	112	101	120	93	104	129	111	116	110	119	117	-2.11%	115
EU14	115	105	122	95	102	132	111	120	111	120	120	0.23%	117
EU13	108	88	118	90	113	123	114	108	115	120	108	-9.76%	113
Region 1 (AT, CZ, DK, FI, HU, LT, PL, SE, SK)	114	107	125	92	115	123	112	109	117	120	112	-6.68%	114
Region 2 (BE, DE, FR, NL)	115	106	122	96	101	134	113	120	109	120	120	-0.49%	116
Region 3 (BG, EL, ES, HR, IT, PT, RO)	90	54	99	74	83	89	79	90	95	104	101	-2.14%	94

Factories	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
EU27	105	105	105	104	102	103	101	99	91	88	88
EU14	68	68	68	67	65	66	65	64	57	57	57
EU13	37	37	37	37	37	37	36	35	34	31	31
Region 1 (AT, CZ, DK, FI, HU, LT, PL, SE, SK)	36	36	36	36	36	36	36	35	35	34	35
Region 2 (BE, DE, FR, NL)	50	50	50	50	50	50	50	50	44	44	44
Region 3 (BG, EL, ES, HR, IT, PT, RO)	19	19	19	18	16	17	15	14	12	10	9

Growers	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Variation
EU27	144,899	141,405	139,067	134,601	131,864	127,147	120,179	114,393	105,374	105,374	97,909	-4.51%
EU14	105,169	101,945	100,514	96,825	94,514	89,382	83,841	80,919	73,429	72,723	71,466	-1.73%
EU13	39,730	39,460	38,553	37,776	37,350	37,765	36,338	33,474	31,945	29,805	26,443	-11.28%
Region 1 (AT, CZ, DK, FI, HU, LT, PL, SE, SK)	48,656	48,254	47,076	46,319	45,504	44,898	42,203	39,129	37,242	36,120	32,585	-9.79%
Region 2 (BE, DE, FR, NL)	73,415	72,428	72,017	70,078	69,715	67,907	67,057	65,927	60,920	59,697	59,469	-0.38%
Region 3 (BG, EL, ES, HR, IT, PT, RO)	22,426	20,342	19,603	17,843	16,292	13,989	10,670	9,119	7,041	6,558	5,716	-12.84%

Employment during the processing campaign	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Variation
EU27	29,316	29,256	27,880	26,904	27,637	28,675	27,888	26,237	25,093	24,083	23,900	-0.76%
EU14	19,166	19,377	18,829	18,306	18,165	19,114	18,407	17,776	16,689	16,171	16,049	-0.75%
EU13	10,150	9,879	9,052	8,598	9,472	9,561	9,481	8,461	8,404	7,912	7,851	-0.77%
Region 1 (AT, CZ, DK, FI, HU, LT, PL, SE, SK)	9,986	9,859	9,642	9,046	8,980	9,151	9,126	8,337	8,469	8,433	8,788	4.21%
Region 2 (BE, DE, FR, NL)	13,249	13,322	13,404	12,958	12,783	13,939	13,936	13,644	12,848	12,555	12,563	0.06%
Region 3 (BG, EL, ES, HR, IT, PT, RO)	6,081	6,075	4,835	4,900	5,874	5,585	4,826	4,256	3,776	3,095	2,549	-17.64%

Employment between processing campaign	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Variation
EU27	20,968	20,922	20,243	19,808	20,797	21,368	21,174	20,399	19,560	18,635	18,712	0.41%
EU14	14,526	14,546	14,088	13,732	13,812	14,338	14,125	13,764	13,026	12,452	12,633	1.45%
EU13	6,442	6,375	6,156	6,077	6,985	7,030	7,049	6,635	6,534	6,183	6,079	-1.68%
Region 1 (AT, CZ, DK, FI, HU, LT, PL, SE, SK)	6,926	6,927	6,843	6,714	6,750	6,903	6,946	6,680	6,693	6,691	7,028	5.04%
Region 2 (BE, DE, FR, NL)	11,000	11,033	10,992	10,706	10,875	11,147	11,015	10,734	10,412	9,859	9,922	0.64%
Region 3 (BG, EL, ES, HR, IT, PT, RO)	3,042	2,961	2,409	2,389	3,172	3,318	3,213	2,985	2,455	2,085	1,762	-15.49%