bvse market report: plastics, July 2023

1 General economy and reference to the plastics industry

ifo business climate index: The results of the ifo economic survey in June 2023 show that the business climate index in Germany is falling, see <u>https://www.ifo.de/fakten/2023-06-26/ifo-geschaeftsklimaindex-sinkt-juni-2023</u>. The mood in German board rooms has deteriorated markedly. It fell to 88.5 points in June, following on from 91.5 points in May. Expectations were much more pessimistic. Companies also assess their current business situation as worse. It is mainly weaknesses in industry that are taking the German economy into stormy waters.

The business climate has greatly deteriorated in the manufacturing sector. Expectations fell sharply and were at their lowest level since November 2022. Hardly any sector was able to escape this development. The current situation was also assessed as not good. In the mean-time, many companies judge their order volumes to be low.

Plastics Europe Deutschland has published the Q1 2023 Report of the Plastics Industry in Germany. Production in the plastics manufacturing industry recovered in Q1 2023 after the four last falling quarters. It rose by 3 % in comparison to the previous quarter. However, in spite of this recovery, production was still 22.9 % below the previous year's level. Rising production but falling manufacturers' prices led to a drop of 1.9 % in turnover in the sector in comparison to the previous quarter. In Q1, turnover amounted to Euro 7.6 billion. More economic data can be found in Tab. 1.

	Vorquartal Vorjahr		
Produktion*	3,0	-22,9	
Erzeugerpreise	-2,4	5,2	
Umsatz (Mrd. €)*	-1,9	-17,1	
Exporte (Mrd. €)	5,9	-19,9	
Importe (Mrd. €)	-0,1	-15,7	
Beschäftigte (Tsd.)	1,4	-0,5	

Table 1:Q1 2023, the change in percent in comparison to the previous quarter and the previous
year, respectively. Source Destatis. *Seasonally adjusted, Index 2015=100 for Production
and Manufacturers' Prices. [Translation below]

	Q1/2023	Q1/2022
Production*	3.0	-22.9
Manufacturers' prices	-2.4	5.2
Turnover (Bn €)*	-1.9	-17.1
Exports (Bn €)	5.9	-19.9
Imports (Bn. €)	-0.1	-15.7
Employees (Th)	1.4	-0.5

2 Primary markets - standard plastics

Inflation is leading to a lack of consumption. There is an enormous drop in demand among private and commercial consumers. Consumers are hardly in a position any longer to bear the price rises that are being demanded. And, for this reason, demand for plastics is low in almost all areas of processing. The supply of plastics to processors is good; there is a good

supply of cheap virgin grade on the markets. Plastics production in Germany is being supplemented by low-cost imported goods. Low freight costs favour imports. Occasionally demand spots form that are quickly served by the plastics processors.

In June 2023 the EUWID average price of $1,397 \notin t$ was therefore $123 \notin t$ lower than in the previous month $(1,520 \notin t)$. The price drop for standard plastics continues – in fact, it even speeded up, see Tab. 2. The average current mean value from June 2023 $(1,397 \notin t)$ has reached the long-term mean value $(1,294\pm146 \notin t)$ from 01/2012 to 12/2020 if we take standard deviation $(\pm 146 \notin t)$ into account. Or, to put it another way, we may have reached a stable price level for standard plastics at the long-term mean value $(1,294 \notin t)$.

In a year-on-year comparison, it can be seen that the average quotes from June 2023 $(1,397 \in t)$ were 694 $\in t$ lower than those of the previous year $(2,091 \in t)$. The quotes for plastics fell on average by 150 $\in t$ for LDPE, 110 $\in t$ for LLDPE, 90 $\in t$ for HDPE, 90 $\in t$ for PP, 140 $\in t$ for PS and 160 $\in t$ for PVC. The situation for standard plastics is portrayed in EUWID, see <u>www.euwid-recycling.de</u>, and PIE – Plastic Information Europe, see <u>https://pieweb.plasteurope.com/</u>.

Prices in €/t	June 2023	May 2023	April 2023	March 2023	Feb. 2023
LDPE film grade	1230- 1310	1370- 1470	1410- 1520	1460- 1570	1450- 1570
LLDPE film grade	1200- 1310	1300- 1430	1340- 1480	1370- 1520	1350- 1520
HDPE injection moulding	1210- 1290	1290- 1390	1300- 1410	1320- 1450	1320- 1450
HDPE blow mould- ing	1190- 1300	1270- 1400	1280- 1420	1300- 1460	1300- 1460
PS crystal clear	1640- 1720	1770- 1870	1720- 1850	1720- 1850	1800- 1900
PS high impact	1770- 1820	1900- 1970	1850- 1950	1850- 1950	1900- 2000
PP homopolymer	1360- 1520	1460- 1620	1470- 1640	1510- 1680	1500- 1680
PP copolymer	1430- 1570	1510- 1670	1520- 1690	1560- 1730	1550- 1730
PVC tube grade	1150- 1250	1310- 1410	1380- 1480	1410- 1510	1410- 1510
PVC film/cables	1280- 1380	1440- 1540	1500- 1600	1530- 1630	1530- 1630
Average Price	1397 ± 206	1520 ± 213	1541 ± 190	1569 ± 180	1578 ± 200

Table 2: Standard plastics prices according to EUWID over the past five months, listed in €/t.

PET: In Germany, demand for packaging PET did not improve in June. In spite of the warm weather, demand is low and bottle PET readily available. Processors have recourse to well-stocked warehouses. July is much hotter than June. And there are therefore hopes for better demand in July. However, experts are anticipating only a small revival in the beverages sector in Germany because purchase demand is still low due to the recession.

Packaging PET was quoted at an average price of 1,180 €/t in June 2023, and thus 60 €/t lower than in the previous month, see . PIE – Plastic Information Europe https://pieweb.plasteurope.com/.

3 Secondary plastics markets in the plasticker price index

The plasticker internet platform, see <u>http://plasticker.de</u>, publishes quotes on an hourly basis. The present market report indicates the final monthly prices. It is only possible to represent the preliminary prices for July 2023; they will not become definitive until early August 2023. The two quotes stated for July 2023 below indicate only an interim situation, see the left-hand column in Table 3 and Table 4.

3.1 plasticker: Standard plastics

The standard plastics were quoted at an average $619 \notin t$ in June 2023 and were thus $82 \notin t$ lower than the average quote for May 2023 of 701 $\notin t$, see Tab. 3. The average price for June 2023 ($619 \notin t$) was 207 $\notin t$ below that of the previous year ($826 \notin t$).

There were significant price changes of greater than $\pm 40 \notin/t$ for: HDPE regranulates -180 \notin/t , LDPE bale goods +70 \notin/t , LDPE regranulates -110 \notin/t , PS regranulates -80 \notin/t and PET regrind -90 \notin/t . Considerations of price changes with supply figures that are too low are not included here. The June price index is characterised by low demand.

The probable average price in July 2023 (641 \in /t) is thus 22 \in /t higher than in the previous month (619 \in /t), see Tab. 3. And this indicates price stability. The price index of 14.07.2023, shows subdued demand for plastic.

	July ⁶ 23	June 23	May 23	April 23	March 23	June 22
HDPE regrind ¹	650	670	640	660	730	1010
HDPE regranu- lates⁵	970	880	1060	990	1020	1250
LDPE bale goods ²	360	370*	300	190*	200*	160*
LDPE regrind ¹	300*	180*	730*	410*	390*	790*
LDPE regranu- lates ⁵	920	800	910	870	900	1220
PP bale goods ³	310*	230*	220	280	320*	180*
PP regrind ¹	710	740	740	750	740	860*
PP regranulates ⁵	1060	1020	1030	1000	1050	1550
PS regrind ⁴	710*	710*	910*	810*	780*	1090*
PS regranulates ⁵	1190	1130	1210	1250*	1220	1720
PVC_P regrind ¹	460*	570*	680*	760*	800*	900*
PVC_U regrind ¹	640*	580*	500*	730*	740*	0*
PET bale goods	280*	300*	310*	230*	220*	10*
PET regrind mixed colours	420	480	570	550	550	820
Average Price	(641)	619	701	677	690	826

Table 3: Standard plastics price according to plasticker; listed in €/t.

*: Supply figure too low to attain statistical significance; ¹: equivalent to the grade "post-industrial mixed colours"; ²: equivalent to K49; ³: equivalent to K59; ⁴: equivalent to "standard, mixed colours"; ⁵: equivalent to the grade "regranulates, black"; ⁶: preview (may be amended by additional quotes)

3.2 plasticker: Technical plastics

The quotes have been falling continuously in small stages since February 2023. For June 2023, there was an average price of $1,761 \in /t$, which was $87 \in /t$ lower than that of the previous month (1,848 \in /t), see Table 4. The average price for June 2023 (1,761 \in /t) was 252 \in /t below that of the previous year (2,013 \in /t).

There were significant price changes of greater than $\pm 70 \notin /t$ for: PC regrind -130 \notin /t , PC regranulates -360 \notin /t , PBT regranulates -380 \notin /t , PA 6 regranulates -260 \notin /t PA 6.6 regrind +80 \notin /t , POM regrind -90 \notin /t and POM regranulates +80 \notin /t . The price index for June 2023 is characterised by subdued demand for plastic.

The probable average price in July 2023 (1,829 \in /t) is thus 68 \in /t higher than in the previous month (1,761 \in /t). The price index of 14.07.2023 shows subdued demand for plastic.

	July ⁶ 23	June 23	May 23	April 23	March 23	June 22
ABS regrind	870	870	910	930	1040	1450
ABS regranu- lates⁵	1620	1570	1530	1640	1780	2280
PC regrind	1190	1210	1340	1410	1320	1110*
PC regranulates ⁵	2640	2120	2480	2620	2980	2680
PBT regrind	790*	750*	750	760	860*	980*
PBT regranulates	2450	2200	2580	2620	3290	2350
PA 6 regrind	1060	1050*	1100*	1080*	960	1130
PA 6 regranu- lates⁵	2480	2630	2890	2860	2930	2880
PA 6.6 regrind	1320	1390	1310	1310	1350	980*
PA 6.6 regranu- lates⁵	3720	3570	3520	3620	3780	3760
POM regrind	760*	760	850*	1020*	970*	1190*
POM regranu- lates ⁵	3060	3010	2920	2720	2930	3360
Average Price	(1829)	1761	1848	1883	2016	2013

Table 4: Technical plastics price according to plasticker; listed in €/t.

*: Supply figure too low to attain statistical significance; ^{5.} equivalent to the grade "regranulates, black"; ^{6.} preview (may be amended by additional quotes)

4 Secondary plastics markets

The new price level: the price spiral for primary plastics is pushing the secondary plastics down. And where will the prices for secondary plastics find their mean quotes? It is becoming apparent that the pre-crisis level (coronavirus and the war in Ukraine) will be key. Or, put another way, the average prices from 2018 to 2020 could form the price level to which the secondary plastics will fall.

The demand: depending on a stable price level in the amount of the pre-crisis level, the demand for recyclates should also stablise itself. Stabilisation of the recyclate demand will also go hand in hand with their grades. Or, to put it another way, it can be seen that good recyclate grades will find a market in Europe. New recovery structures that are being set up all over Europe, whether for mechanical or chemical recycling, will definitely consolidate demand for plastic wastes and plastic regrind.

Exports and imports: trends for German exports and imports of waste plastics are still negative. On average, per month from 01/2023 to 04/2023 Germany expored only 55,000 t of waste plastics. By way of comparison: in the pre-crisis years of 2019 and 2020, this value was 90,000 t. And in 2013, with the enhanced Green Fence conditions in the People's Republic of China, the monthly exports were as high as 125,000 t. The current quantities for imports and exports can be found in EUWID RE, 23, p. 23, 2023 and in EUWID RE, 28, p. 21, 2023.

4.1 Standard plastics and technical plastics

Standard plastics: There is hardly any demand for plastic wastes from recyclers these days. In June, EUWID continues to report falling prices for waste plastics. plasticker also shows just low demand for standard plastics with average price falls of 82 €/t.

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EUWID regrinds: regrinds from PE production wastes fell by around 49 \in /t, PP production wastes by 78 \in /t, PS production wastes by 53 \in /t and PVC production wastes together with PVC window grades by 61 \in /t.

EUWID films: films from production wastes: for PE these are an average 45 €/t lower and for PP 68 €/t. The PE post user films fell by an average 24 €/t.

Technical plastics: In plasticker, the quotes have been falling continuously and in small stages since February 2023 (2,158 \in /t). For June 2023, there was an average price of 1,761 \in /t, which was 87 \in /t lower than that of the previous month (1,848 \in /t). In PIE – Plastic Information Europe, the regranulates prices fell by between 20 \in /t and 100 \in /t. As far as technical plastics are concerned, pieweb reported improved demand from motor manufacturing. But the situation remains difficult. Demand is described as subdued both by pieweb and plasticker.

4.2 PET Recycling

The difficulties with PET recycling persisted in June. The markets for recycled PET are in upheaval. The price spiral for the virgin grade is pushing rPET, i.e., the prices for flakes and regranulates, down. And what's more, there is a good supply of virgin grade. The recycling structures that have been established can barely sustain themselves. In spite of summer temperatures and the associated increased demand for rPET, no increase in demand is being felt by the recyclers.

The low demand in the plastics processing industry for rPET results in PET recyclers purchasing hardly any used beverage bottles. In June, the prices for used PET single-use bottles fell further. The relative price changes in comparison to the previous month were: PET transparent -120 \notin /t, PET mixed -100 \notin /t and PET coloured -100 \notin /t.

The oversupply of used drinks bottles continues. Processing input is becoming even cheaper as a result. The hopes of the recyclers lie in the plastics processors warehouses emptying. Detailed monthly reports on the PET prices for virgin grade and used beverage bottles can be found in EUWID and PIE - Plastics Information Europe.

5 Explanation on the price quotes

A detailed discussion with information of price indices for virgin grades and waste plastics as well as precursor products can be found in EUWID Recycling and Disposal see <u>www.euwid.de</u>. EUWID: No guarantee for any of the prices here; prices ex station. As a rule, the prices quoted refer to quantities in excess of 20 tons.

The quotes for secondary prices, which are updated on an hourly basis, can be calculated using the price lists that are derived from the quotations published in the raw material exchange plasticker, see <u>www.plasticker.de</u>. The prices listed in this index are quoted without reservation - as the majority of the quotes submitted are not necessarily equivalent to the sales prices. Plasticker offers the quality grades regrind and regranulates both as virgin materials and as secondary goods. The term 'bale goods' refers to waste plastics only. Furthermore, plasticker does not distinguish between the following grades: transparent, mixed colours or colour-separated. Therefore, the information provided by plasticker may indicate different market behaviour than the prices quoted by EUWID

A detailed discussion with information of price indices for virgin grades and waste plastics as well as precursor products can be found in PIE – Plastics Information Europe, see <u>www.kiweb.de</u>. For virgin grades, the indices for standard plastics (Plastixx ST) and technical plastics (Plastixx TT) provide a good overview of the price trends. Pieweb quotes the monthly regranulates prices for standard plastics and technical plastics in the secondary markets. For

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secondary plastics, there are also details on PET, in this case flakes (flakes transparent, flakes mixed colours) as well as transparent regranulates.

Bonn, Friday, 8. September 2023

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