



Polish Construction Companies 2023

- Major Players, Key Growth Drivers, and
Development Prospects

November 2023



PORR S.A.: A18 motorway

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TRAKCJA GROUP: Skarżysko Kamienna's ring road

Introduction

Ladies and Gentlemen,

I am very pleased to present you with this 11th edition of the report **“Polish Construction Companies 2023 - Major Players, Key Growth Drivers, and Development Prospects.”**

In 2022, revenues of the fifteen largest construction companies reached almost PLN 44.5 billion, an increase of 22.5% compared with the previous year. This increase in revenue, despite the high base in the previous year, reflects the scale of the market, but it also results from macroeconomic factors, such as in particular, high inflation. This dip in results in certain segments of the building sector (housing market) were offset by ongoing implementations of large infrastructure projects and specialised construction, especially on the warehouse market.

Amid an economic slowdown caused by macroeconomic factors, infrastructure projects funded by public money gained higher importance. A crisis caused by the conflict in Ukraine, disruptions to supply chains or rising inflation are just some of the factors that investors on the construction market will have to consider. Unfortunately, due to the macroeconomic situation, the sector is presented with major challenges. In addition, contract margins will come under great pressure too. In the short term, the order book (“backlog”) is likely to shrink, causing increased competitiveness in the sector, which may bring about situations we have already seen in the past (e.g. highly competitive market, contracts executed at a loss, claims). Given the above, it is crucial to ensure the continuity of contracts from both the public and private sectors. Furthermore, the implementation of long-term plans and critical infrastructure projects helps eliminate a cyclical pattern in the construction segment.

The growing significance of environmental and social aspects will undoubtedly play its part in the future too. The construction industry is increasingly being

called upon to adapt to newly emerging standards and requirements related to ESG (Environmental, Social, Governance). The requirements, implemented on the European as well as global level, concerning the construction of buildings, decarbonisation of existing and future assets, carbon footprint analysis and water consumption are becoming an inherent part of construction companies’ activities. The importance of ESG as well as new technologies is bound to increase every year, and it will significantly change the approach to the way buildings are constructed and operated.

As in previous years, the report **“Polish Construction Companies 2023 - Major Players, Key Growth Drivers, and Development Prospects”** consists of three parts.

In the first chapter, we present a financial analysis of the fifteen largest construction companies in Poland, which recorded the highest revenues in 2022. The ranking was built on the analysis of their revenue, operating income, net profit/loss, debt, and revenue structure by type and location. In the second chapter, we describe the development prospects of construction companies in Poland over the next several months. This part of the report presents the main determinants of the Polish construction market, complemented with an analysis of the current condition of individual sectors of the construction industry. In addition, we discuss the current and future challenges that the companies in the sector are or will be dealing with. The last part of the report is entirely dedicated to the companies included in our ranking. It presents key information about their activities, ownership structure, and financial data derived from their annual reports.

The report was prepared based on publicly available financial data and information provided to us directly by the entities described herein. We did not include

here special-purpose entities or project companies as it was not feasible to indicate consolidated data for Poland, as well as entities whose data were not available or did not agree to their publication. There are two annexes to this report. The first one includes the results of a survey we conduct among construction companies. Respondents in this year’s survey provided answers to questions concerning, among others, the current condition of their companies and the construction market as a whole, plans to expand their businesses and matters related to the implementation of environmental solutions and new technologies. The second annex presents our experts’ analyses of the current ESG guidelines, regulations, and standards that all players in the construction market should implement.

We do hope that the report **“Polish Construction Companies 2023 - Major Players, Key Growth Drivers, and Development Prospects”**, which we are handing over to you, will be a valuable source of information about the condition of the Polish construction sector, and will provide you with insight into the challenges we will have face in the near future.



Chapter 1

Financial analysis of the largest construction companies

1.1. Poland’s largest construction companies by revenue in 2022

In 2022, revenues of the fifteen largest construction companies reached nearly PLN 44.5 billion, an increase of 22.5% compared with the previous year. As in previous years, the leader of the ranking is the Budimex Group, with revenue of PLN 8.6 billion, an increase of 8.9% compared with 2021. The Strabag Group with revenue of PLN 5.1 billion (down by about 0.3% vs. 2021) came second. And the PORR Group with revenue of PLN 3.9 billion (up by 12% vs. 2021) came third. The final place in the ranking is taken by the Trakcja Group, which recorded revenue of PLN 1.5 billion, an increase of 5.4% compared with the previous year.

The largest increase in revenue in money terms in 2022 was notched up by the Polimex - Mostostal Group and Atlas Ward Poland - a new player in the ranking (an increase of PLN 1.5 billion and PLN 837 million respectively). It is worth noting that such large increases allowed the Polimex - Mostostal Group to advance in the ranking by one place, and Atlas Ward Poland to debut in this year’s edition. The largest increase in revenue in percentage terms in 2022 was achieved by Atlas Ward Poland (up by almost 100%), The Polimex - Mostostal Group (up by over 64%) and Kajima Poland. The growth of the latter was 50.2%, contributing to its entry in this year’s ranking. These companies ranked 12th, 5th, and 9th respectively.

In this year’s ranking, only one entity recorded a slight fall in revenue and that was the Strabag Group (down by 0.3%), which nevertheless managed to maintain a strong and stable position in the top three.

In this year’s report, data in Table 1.1 may differ compared with the last year’s edition. This is due to some changes to the opening balance sheets made by some of the companies in the financial statements for 2022. The financial data used were obtained from financial statements (if they have been filed with the KRS) made available to the public. The exception is the Goldbeck Group, which confirmed to us the consolidated data of its companies in Poland.

Three new players have joined this year’s ranking: Kajima Poland, Atlas Ward Poland, and Adamietz. All three companies appeared in the report for the first time.

The level of revenues results largely from the implementation of many public infrastructure projects, notably in the field of road and rail construction - the segments are presented in detail in the second chapter, but also from the good situation in certain segments of the construction market - the warehouse space sector led the way.

The chart below shows how the average revenue of the largest construction companies has changed over the years - since the report was first published. The average revenue of the entities included in our rankings between 2012 and 2023

oscillate between PLN 1.7 billion and PLN 3.0 billion. Since the significant drop in average revenues in 2013, only in 2017 did the companies managed to recover and achieve the average revenue exceeding PLN 2 billion.

The presented chart shows that despite the year-over-year growth in revenue of construction companies sustained since 2016, we saw in 2019 and 2020 a slight fall of 4% and 1% respectively, while in 2021 it went up again, matching the level from recent years. In 2022, an increase in the average revenue was 23% and nominal average revenues reached nearly PLN 3 billion. Skyrocketing costs in the construction industry, high inflation rates, which also translated into an increase in contract prices and turnover of most players in the market, certainly played their part too.

We would like to point out that the reported values for the previous year and the year-over-year growth differ from the data presented in Chart 1.1 due to the variable composition of the group of the fifteen largest construction companies in terms of revenues generated in each year included in the chart.

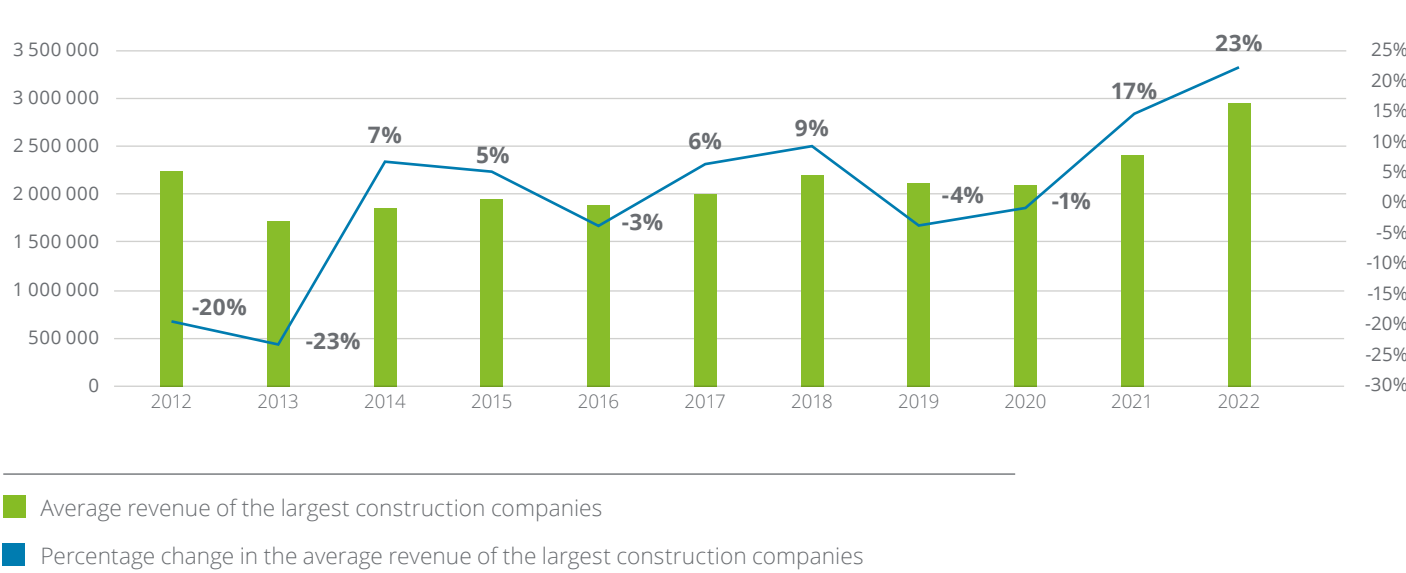
Table 1.1: Poland’s largest construction companies by revenue in 2022 (PLN’000)

No.	Company name		Revenue 2022	Revenue 2021	Nominal change	Percentage change
1	Budimex Group	↔	8 619 054	7 911 192	707 862	8.9%
2	Strabag Group	↔	5 068 281	5 082 750	-14 469	-0.3%
3	PORR Group	↔	3 918 690	3 497 523	421 167	12.0%
4	Erbud Group	↔	3 855 649	3 102 095	753 554	24.3%
5	Polimex-Mostostal Group	↑	3 784 203	2 304 000	1 480 203	64.2%
6	Mirbud Group	↓	3 319 329	2 505 568	813 761	32.5%
7	Unibep Group	↔	2 258 312	1 714 018	544 294	31.8%
8	Goldbeck Group	↔	2 157 725	1 558 229	599 495	38.5%
9	Kajima Poland	🆕	1 802 512	1 200 245	602 267	50.2%
10	PUT Intercor	↑	1 683 229	1 237 895	445 334	36.0%
11	Poznańska Korporacja Budowlana Pekabex S.A.	↓	1 677 945	1 504 862	173 083	11.5%
12	Atlas Ward Poland	🆕	1 674 341	837 810	836 530	99.8%
13	Mostostal Warszawa Group	↓	1 614 337	1 305 030	309 307	23.7%
14	Adamietz	🆕	1 529 662	1 100 204	429 457	39.0%
15	Trakcja PRKiL Group	↓	1 501 957	1 424 841	77 116	5.4%
Total			44 465 224	36 286 263	8 178 962	22.5%
Average			2 964 348	2 419 084	545 264	22.5%

🆕 New entity in the ranking ↑ Rise in the ranking ↓ Drop in the Ranking ↔ No change

Note: This analysis does not include the profit/loss of foreign branches of construction companies operating in Poland or that of SPVs set up by a consortium in order to perform a specific task
Source: Financial statements 2022

Chart 1.1: Percentage change in the average revenue of the companies ranked in years 2012-2022 (PLN’000) YoY



Based on previous reports presenting the largest construction companies in Poland (Deloitte reports: Polish Construction Companies 2012-2022)

1.2. Poland's largest construction companies by operating income in 2022

The operating income of the largest construction companies is the difference between the operating revenue and the costs of goods sold (excluding other operating revenue and expenses).

The average operating margin of the fifteen largest construction companies increased by PLN 12 million (6.5% YoY).

The Budimex Group (PLN 872 million) and Poznańska Korporacja Budowlana Pekabex S.A. (PLN 281 million) enjoyed the highest operating income. The largest nominal increase in 2022 was recorded by the Goldbeck Group (improvement by PLN 131 million, which is an increase of 178%), while the largest percentage increase was recorded by Atlas Ward

Poland (improvement by PLN 126 million, which is an increase of more than 206%). The above reflects the market situation at the time. In recent years, the market has seen a significant increase in the cost of materials and labour, which has translated into higher prices of the services performed - details are included in the second chapter. Achieving this balance together with implementing major infrastructure programmes and introducing different rules for the valorisation of construction contracts (public investments), allowed the companies to achieve sound financial results in 2022.

Five companies in the ranking failed to improve their operating income compared with the previous year. The Trakcja Group

and PUT Intercor recorded a significant decline in their results compared with the previous year (down by 347.9% and 75.5% respectively). The average operating margin of the largest construction companies in 2022 was positive and stood at 6.5%. This represents a decrease by 1.0 p.p. compared with 7.5% recorded in 2021.

The highest operating income in percentage terms was achieved by Poznańska Korporacja Budowlana Pekabex S.A. and Atlas Ward Poland with gross margins of 16.8% and 11.2% respectively. Both companies recorded an increase in gross margin of about 3.9 p.p. compared with 2021 and ranked first and second respectively. The entity with the largest increase in gross margin compared with 2021 was the Goldbeck Group (up by 4.8 p.p.).

In 2022, only one entity experienced a negative gross margin, namely the Trakcja Group (margin at -9.5%). At the same time, the same entity recorded the largest drop in operating margin in percentage terms (down by almost 13.6 p.p.). The entities with the lowest positive gross margin were PUT Intercor and PORR Group (2.9% and 3.0% respectively).

The industry's condition is underpinned by a relatively high inflow of infrastructure orders - the implementation of a road construction programme - and by demand in certain segments of the building construction market (warehouses, industrial construction, etc.).

In the coming years, there will be further investments for the construction and implementation of new road programmes, including the execution of a project entitled a Central Communication Port. However, since the end of 2022 onwards, the industry has been battered by soaring costs of materials and labour so margins in the following years will again come under severe pressure from market conditions despite introducing the valorisation clauses in public contracts in 2019. In addition, the situation is exacerbated by the conflict in Ukraine, which weighs on the macro-economic situation and causes a slowdown in certain market segments (e.g. housing construction).

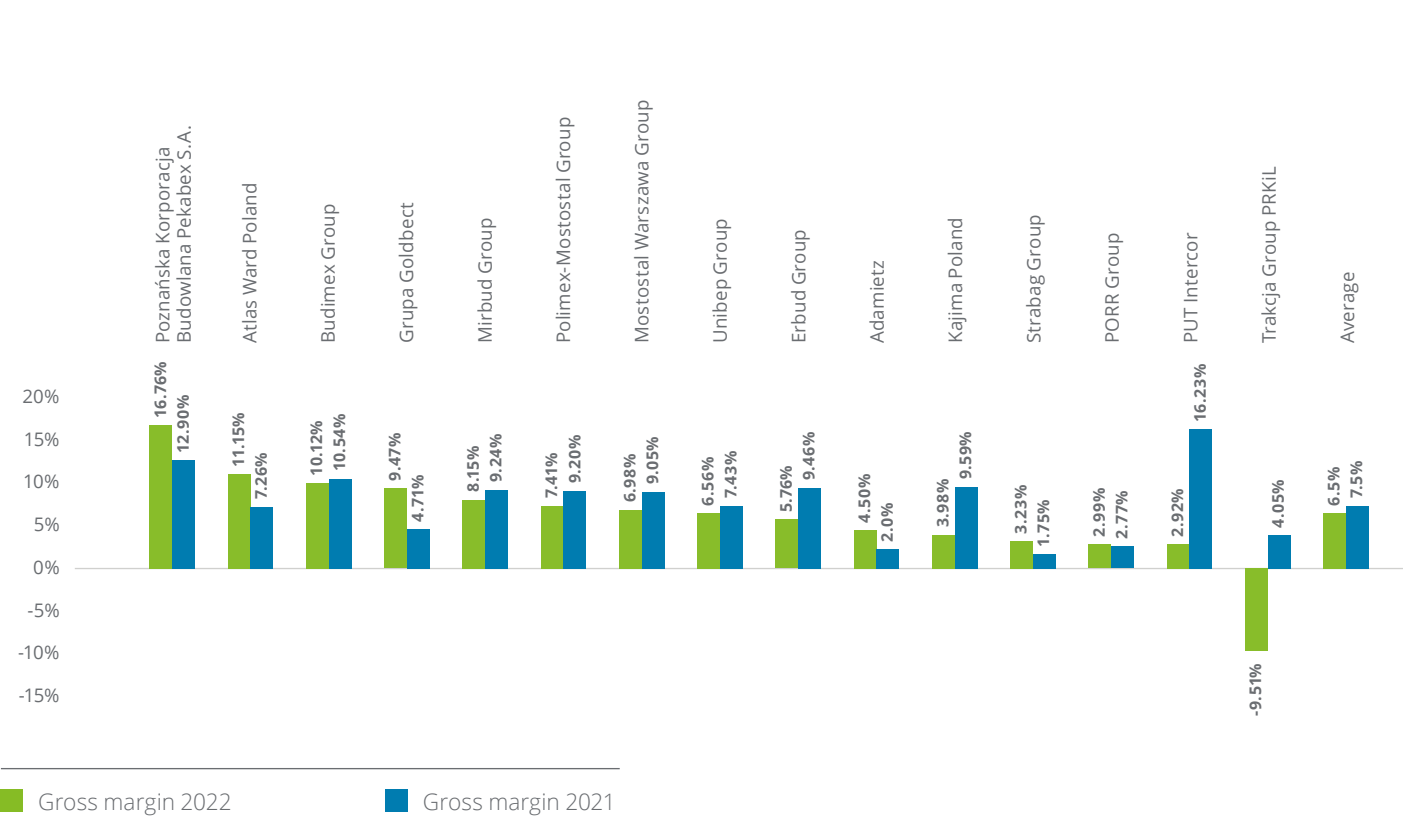
Table 1.2: Profit/loss of the fifteen largest companies in nominal terms (PLN'000)

No.	Company name		Sales profit/ loss 2022	Sales profit/ loss 2021	Nominal change	Percentage change	Percentage change in operating margin (p.p.)
1	Budimex Group	↔	872 443	833 797	38 646	4.6%	-0.42
2	Poznańska Korporacja Budowlana Pekabex S.A.	↑	281 176	194 129	87 047	44.8%	3.86
3	Polimex-Mostostal Group	↑	280 366	211 891	68 475	32.3%	-1.79
4	Mirbud Group	↓	270 483	231 600	38 883	16.8%	-1.09
5	Erbud Group	↓	222 149	293 315	-71 166	-24.3%	-3.69
6	Goldbeck Group	↑	204 266	73 363	130 903	178.4%	4.76
7	Atlas Ward Poland	🔄	186 729	60 842	125 887	206.9%	3.89
8	Strabag Group	↑	163 693	89 002	74 691	83.9%	1.48
9	Unibep Group	↓	148 255	127 296	20 959	16.5%	-0.86
10	PORR Group	↔	117 245	96 774	20 471	21.2%	0.23
11	Mostostal Warszawa Group	↓	112 691	118 068	-5 377	-4.6%	-2.07
12	Kajima Poland	🔄	71 675	115 106	-43 431	-37.7%	-5.61
13	Adamietz	🔄	68 888	25 125	43 762	174.2%	2.22
14	PUT Intercor	↓	49 115	200 877	-151 762	-75.5%	-13.31
15	Trakcja PRKiL Group	↓	-142 875	57 638	-200 513	-347.9%	-13.56
Average			193 753	181 922	11 832	6.5%	
Average sales margin (%)			6.5%	7.5%			

🔄 New entity in the ranking ↑ Rise in the ranking ↓ Drop in the Ranking ↔ No change

Source: Financial statements 2022

Chart 1.2: Operating margins of the largest construction companies (in %)



Source: Financial statements for 2022.

1.3. Poland’s largest construction companies by net profit/loss in 2022

Another indicator describing the condition of the largest construction companies is net profit/loss. **The average net profit/loss of the fifteen largest companies was PLN 99.4 million, and it went down compared with 2021. The last year’s result stood at PLN 122.8 million.** Fourteen companies presented in our ranking made a net profit and only one sustained a loss, thus contributing to a year-over-year drop in the average result.

For the sixth year in a row, the Budimex Group, with a net profit of PLN 548.1 million, came first. Despite its top place, the company recorded the largest nominal drop of PLN 438.3 million (-44.4% in percentage terms). It is related with the sale

of the special purpose vehicle - Budimex Nieruchomości in 2021 and reporting a profit from discontinued operations of PLN 520 million.

The second place in the ranking went to the Strabag Group with a profit of PLN 199 million. The Goldbeck Group completes the podium with a profit of almost PLN 185 million. It is worth noting that the Group significantly improved its net result compared with 2021 by more than PLN 126 million in nominal terms, which translates into an increase of 216.4% and gives the Group the first place in terms of the largest nominal change in a net result achieved.

The second place in terms of the largest nominal change in a net profit/loss is occupied by Atlas Ward Poland, debuting in the ranking (up by PLN 109 million). The third place went to the Strabag Group (an increase of PLN 88.6 million). The largest drop in the result (after the Budimex Group) of PLN 299 million was seen by the Trakcja Group. Kajima Poland took the third place in terms of a result change (down by PLN 33 million vs. 21).

Table 1.3: Net profit/loss of the largest construction companies (PLN'000)

No.	Company name		Net profit/ loss 2022	Net margin 2021	Nominal change	Percentage change	Percentage change in net margin (p.p.)
1	Budimex Group	↔	548 129	986 454	-438 325	-44.4%	-6.11
2	Strabag Group	↑	199 268	110 637	88 632	80.1%	1.75
3	Goldbeck Group	↑	184 550	58 335	126 215	216.4%	4.81
4	Atlas Ward Poland	↗	153 537	44 105	109 432	248.1%	3.91
5	PUT Intercor	↓	151 454	124 992	26 462	21.2%	-1.10
6	Polimex-Mostostal Group	↓	131 053	87 025	44 028	50.6%	-0.31
7	Mirbud Group	↓	119 195	128 010	-8 815	-6.9%	-1.52
8	PORR Group	↓	96 841	79 298	17 543	22.1%	0.20
9	Poznańska Korporacja Budowlana Pekabex S.A.	↑	67 255	40 641	26 614	65.5%	1.31
10	Kajima Poland	↗	50 224	82 990	-32 766	-39.5%	-4.13
11	Adamietz	↗	38 919	22 307	16 612	74.5%	0.52
12	Unibep Group	↓	31 861	42 113	-10 252	-24.3%	-1.05
13	Mostostal Warszawa Group	↓	19 263	24 708	-5 445	-22.0%	-0.70
14	Erbud Group	↔	10 994	21 338	-10 344	-48.5%	-0.40
15	Trakcja PRKiL Group	↔	-311 078	-11 583	-299 495	-2585.6%	-19.90
Average			99 431	122 758			
Net average margin (%)			3.4%	5.1%			

↗ New entity in the ranking

↑ Rise in the ranking

↓ Drop in Ranking

↔ Maintaining the position in the ranking, no change

Source: Financial statements 2022



Marcin Węglowski

Member of the Management Board,
Head of the Economic and Financial
Division,
Budimex S.A.

“

“The long-term outlook for the construction market is very good, but the current situation in the markets is challenging for Polish construction companies. In many segments, a number of unfavourable factors is putting a chill on investments. These factors include a limited supply of new projects, which is particularly evident in infrastructure segments such as rail, which is heavily dependent on the availability of EU funds. In addition, intensified competition from foreign entities, often aggressively quoting on the verge of profitability of contracts, further increases uncertainty among general contractors. This factor is particularly evident within road construction, where market share is being gained by entities hitherto absent from the Polish market, e.g. from Asia, which do not have adequate engineering facilities. We estimate that the share of foreign entities in road contracts has increased from a few per cent before 2020 to nearly 30 or even 40 per cent today. Seeing these worrying trends in the domestic construction market, we already made the strategic decision three years ago to expand our infrastructure activities to the neighbouring markets. The first results of our efforts are already visible, as last year we signed the first contract in Slovakia, and we are currently expecting to sign more than PLN 3 billion worth of contracts on the Czech and Slovak markets. At the same time, despite the current investment gap in the rail sector, we believe that in the long term, due to existing investment programmes and planned tasks, this sector has significant potential both for the construction of new railway lines and the modernisation of existing ones, which should be satisfied by general contractors allowing them to fill their order books and use the available personnel and machinery resources. We also believe that the markets to watch in the coming years will be hydrotechnical construction and energy construction due to the ongoing energy transition.”



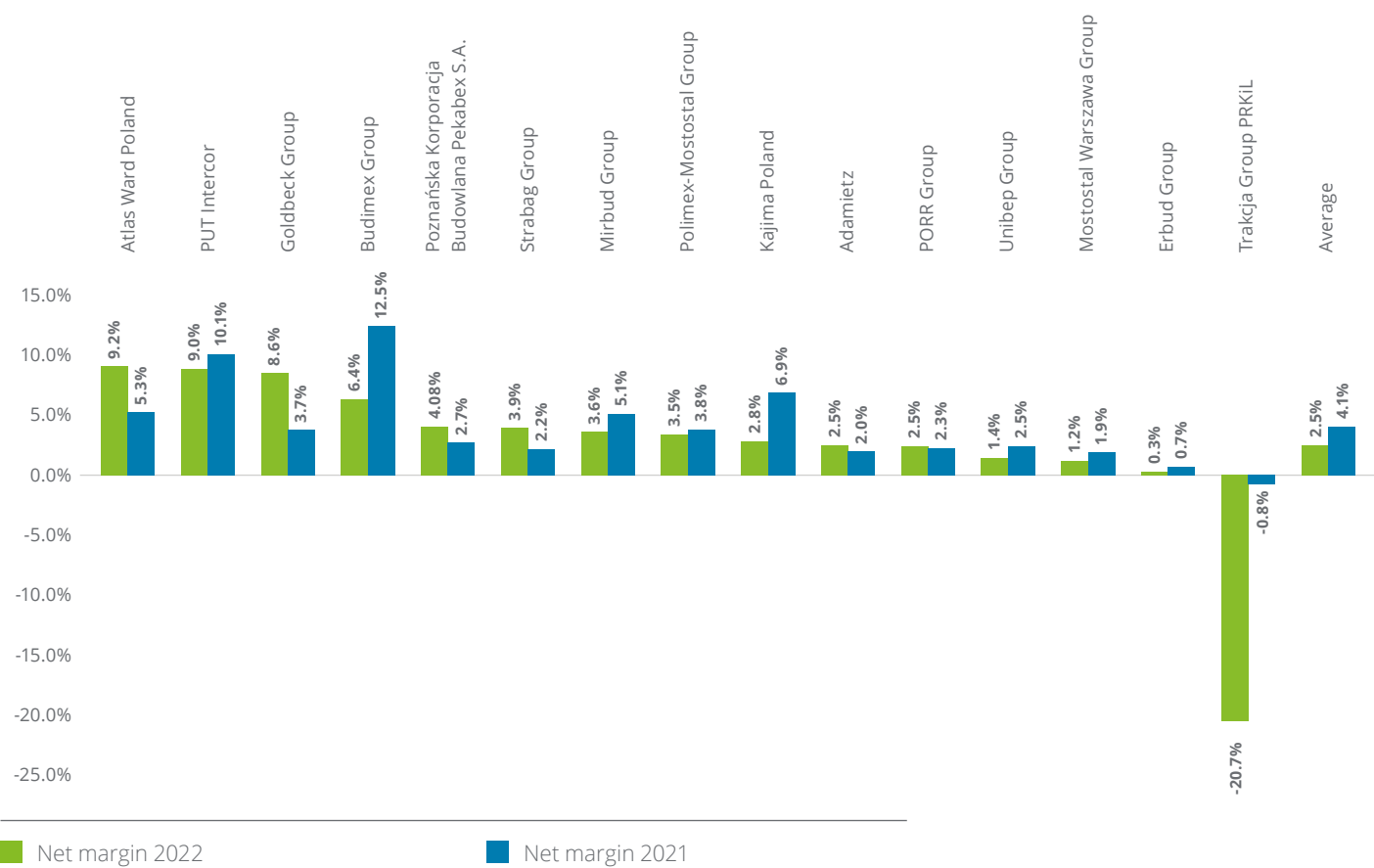
Modernisation and reconstruction of the Polish Theatre in Szczecin

An analysis of an average net margin in percentage terms reveals that in 2022 it was approximately 1.6 p.p. lower than in the previous year and it stood at 2.5%, while in 2021 at 4.1%. The leader in terms of net margin in percentage terms was Atlas Ward Poland with 9.2% (up by 3.9 p.p.). The second place for the second year in a row was taken by PUT Interkor with a net margin of 9% (down by 1.1 p.p.). The Goldbeck Group ranked third with a margin of 8.6% improving its result from last year by 4.8 p.p. Nine entities included in the ranking reported a drop in their net margin in

percentage terms in 2022. In contrast, this figure was improved by six companies. The largest percentage increase was enjoyed by the Goldbeck Group and Atlas Ward Poland. The biggest falls were recorded by the Trakcja Group (19.9 p.p.) and Budimex Group (6.1 p.p.). **A surge in the cost of materials and wages - despite a relative stabilisation in 2022 after a period of large increases, mainly relates to the contracts secured in recent years - was not covered by the valorisation of contracts, which contributed to a**

declining profitability of the industry. In addition, the performance of companies was further strained by high interest rates, which significantly increased all financing costs of business operation in 2022 and will certainly have its impact on the results for 2023. **In 2022 the profitability of the construction market's players, both within a core business (gross margin) and within operating and financing activities (net margin), has decreased compared with the previous year.**

Chart 1.3: Net profit margins of the largest construction companies (%)



Source: Financial statements 2022

The continuing increase in the cost of construction materials, in particular steel, timber, cement, and other materials, which began in Q4 2020, weakened the expected profitability. Historically, in the years from 2012 (when the result of settlements of unprofitable infrastructure contracts implemented under the previous financial perspective enacted by the European Parliament for the period 2007-2013 was recognised), until 2016, we have seen a systematic improvement in the profitability of the projects implemented and the net results achieved by the largest players.

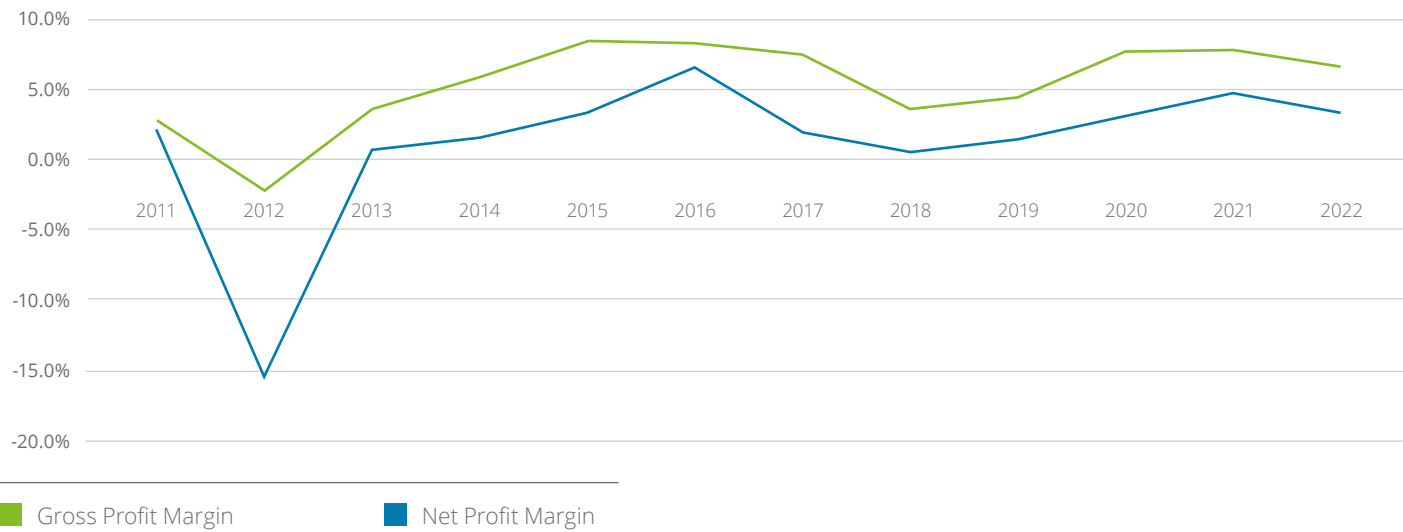
However, between 2017 and 2018, there has been a visible decline in the average profitability ratios of construction companies. Raising cost of labour and materials was one of the main factors determining this trend. Despite the persistent price increases, which started back in 2019, the average profitability of the construction companies grew until 2021. In 2022, we again see a decline in

both gross and net margins. The entities are still hit hard by high prices of materials as a result of disruptions which have been continuing since the pandemic period. This is further compounded by the ongoing conflict in Ukraine. We also see higher financing costs in the 2022 results due to rising interest rates. Relatively high volumes of construction output in progress, low unemployment, limited material resources all together result in over-proportional increase in the cost of performing contracts. The continuation of large-scale infrastructure programmes and the return of investments to the commercial sector will have a significant share in the increased value of public investments (in 2022, the positive trend continued in the warehousing and industrial projects sector, but a clear slowdown was visible in the housing or retail construction markets).

Despite many challenges, the competitiveness in the market is increasing. A slight downturn caused by reduced

supply of commercial projects is forcing, especially smaller companies or entities that do not carry out large infrastructure projects, or those that only want to enter the market in Poland, to submit their bids at lower prices.

Chart 1.3.1: Changes in the average net and gross profit margins of the ranked companies in years 2011 and 2022 (in PLN '000)



Based on previous reports presenting the largest construction companies in Poland (Deloitte reports: Polish Construction Companies 2012-2022)

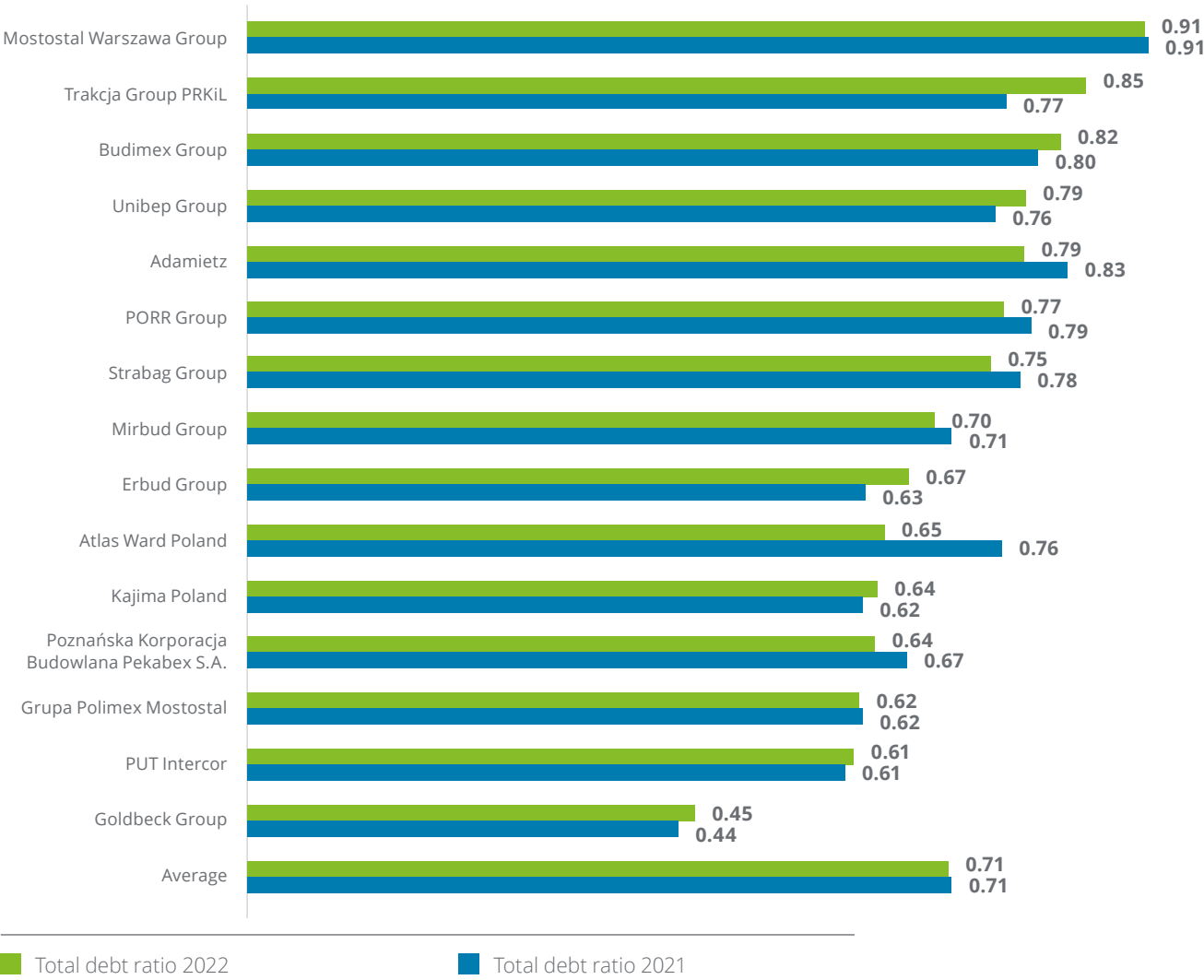
1.4. Debt the largest construction companies in 2022

An analysis of the debt ratios of the largest construction companies reveals that the value has remained at a similar level in 2022 compared with 2021. In accordance with the assumption made for the purpose of standardising a debt ratio in this report, it was counted as the percentage of all long- and short-term liabilities including provisions in the balance sheet total. Over the analysed period, a negative correlation can be seen between the change in a net margin in percentage terms and the change in the level of debt incurred by the entities.

In 2022, the company which saw the largest increase in debt was the Trakcja Group (8.13 p.p.). During the analysed period, the Group's gross margin was -9.5%, 13.56 p.p. lower than in 2021. The company's net margin fell from -0.8% in 2021 to -20.7% in 2022. The Erbud Group also recorded a higher debt, with an increase of 4.35 p.p. followed by the Unibep Group, which increased its overall debt by 3.05 p.p. compared with the previous year.

In contrast, Atlas Ward Poland decreased its debt by 11.88 p.p. in 2022. In 2022, the company's profitability ratios were positive, as evidenced by the fact that the company had no problems in settling its liabilities on time. A decrease in debt was also seen by Adamietz (down by 4.47 p.p.) and Poznańska Korporacja Budowlana Pekabex S.A. (down by 3.18 p.p.).

Chart 1.4.: Debt ratio in years 2021 - 2022



Source: Financial statements 2022

1.5. Capital expenditure to sales ratio of the largest construction companies in 2022

Companies operating in the construction sector tend to have a relatively low ratio of capital expenditure to sales, due to the high volume of sales and the low level of capital expenditure required to provide construction services. In 2022 the total capital expenditure of the largest entities amounted to PLN 629.17 million, 12% higher than in 2021.

The average level of capital expenditure of the entities in the ranking was PLN 41.9 million in 2022. In 2022, the Budimex Group was again the leader in terms of expenditures in nominal terms. Its total capital expenditures in 2022 amounted to more than PLN 222 million and increased by PLN 64 million compared with 2021. In the second and third place, respectively, were the Strabag Group with expenditures of PLN 83 million (down by 28.2% vs. 2021)

and Erbud Group with expenditures of PLN 56 million. The Group recorded a decrease of PLN 29 million in overall capital expenditure compared with 2021 (down by 34.2% vs. 2021). It is worth noting that the top three places have not changed from the last year's ranking.

In 2022, the ratio of capital expenditure to revenue averaged 1.5%, down by 0.1 p.p. compared with the previous year. The

Table 1.5.: Capital expenditure of the fifteen largest construction companies (in PLN '000)

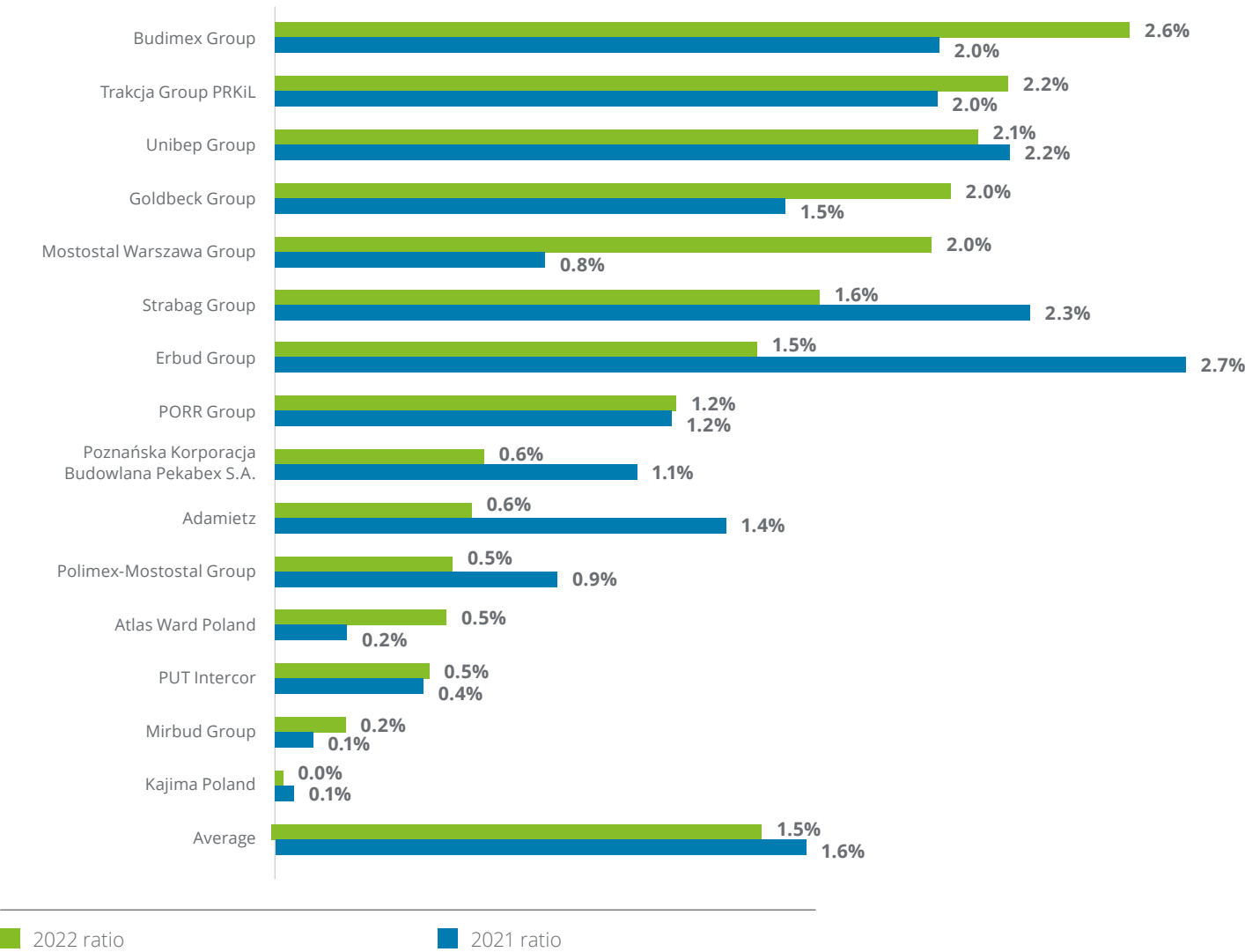
No.	Company name	Capital expenditure 2022	Capital expenditure 2021	Nominal change
1	Budimex Group	221 987	158 305	63 682
2	Strabag Group	83 015	115 554	-32 539
3	Erbud Group	55 957	85 072	-29 115
4	Unibep Group	47 800	37 900	9 900
5	PORR Group	47 359	41 812	5 547
6	Goldbeck Group	43 899	23 939	19 960
7	Trakcja PRKiL Group	33 176	28 410	4 766
8	Mostostal Warszawa Group	31 902	10 631	21 271
9	Polimex-Mostostal Group	20 345	19 584	761
10	Poznańska Korporacja Budowlana Pekabex S.A.	10 587	16 364	-5 777
11	Adamietz	9 071	14 927	-5 856
12	Atlas Ward Poland	8 645	1 812	6 833
13	PUT Intercor	7 864	5 533	2 331
14	Mirbud Group	7 139	2 867	4 272
15	Kajima Poland	424	687	-264
Total		629 170	563 397	65 772
Average		41 945	37 560	4 385

New entity in the ranking Rise in the ranking Drop in the Ranking No change

Source: Financial statements 2022

entities with the highest ratio of capital expenditure to sales were the Budimex Group, Trakcja Group, and Unibep Group. The lowest capital expenditures in relation to sales were reported by Kajima Poland, Mirbud Group and PUT Intercor.

Chart 1.5: Capital expenditure to sales ratio (years 2022 and 2021)



Source: Financial statements 2022

1.6. Revenue of the largest construction companies by geography and type in 2022

1.6.1. Revenue by geography

Large construction groups operating on the Polish market are also present on foreign markets. Their export activities are concentrated on neighbouring markets, primarily in Western and Eastern Europe, and on the Scandinavian market. However, the value of sales generated abroad is still relatively small, and the main market on which construction services are provided is Poland – it brings almost 92% of revenues. **In nominal terms, the average revenue generated abroad by the largest companies was PLN 261 million, which was PLN 9 million higher than the average revenue generated abroad in 2021. This represents an increase of 4% year-over-year.** In 2022, the Polimex Mostostal Group generated the highest revenue abroad, which amounted to PLN 734 million and was 18% higher than in 2021. At present, the Polimex Mostostal

Group is implementing projects in Lithuania, Germany, the Czech Republic, Belgium, and the Netherlands, among others. The Trakcja Group came second. Its revenue amounted to PLN 591 million and was 9.5% higher than the revenue obtained from foreign sales in 2021. The Erbud Group ranked third with revenues of PLN 495 million, recording an increase of 19.8% compared with 2021. A significant increase in revenues generated abroad among the entities in the ranking was recorded by the Goldbeck Group, an increase of 104.7% compared with 2021. The second highest increase in revenue from foreign operations was reported by the Mostostal Warszawa Group, up by 49.7% with more than 64% generated in Germany. The largest fall in revenues earned abroad in nominal and percentage

terms was reported by the PORR Group (down by more than 39%). The Mirbud Group, Kajima Poland, Atlas Ward Poland and PUT Intercor are the entities which generate their revenues almost exclusively in Poland. The average share of foreign revenues in the total operating revenues of the largest construction companies (Chart 1.6.1) stood at 11.1% and was approximately 2.6 p.p. lower than the share in 2021. For three entities - the Trakcja Group (39.3%), Poznańska Korporacja Budowlana Pekabex (26.5%), and Adamietz (25.03%), the foreign sales accounted for more than 25% of their total sales revenue. An analysis of the generated sales by location shows that the players in the construction sector are looking for

Table 1.6.1: Revenue earned by the largest construction companies abroad (in PLN '000)

No.	Company name		Revenue from sales earned abroad 2022	Revenue from sales earned abroad 2021	Nominal change	Percentage change
1	Polimex-Mostostal Group	↔	733 743	621 605	112 138	18.0%
2	Trakcja PRKiL Group	↔	590 838	539 590	51 248	9.5%
3	Erbud Group	↑	495 316	413 512	81 804	19.8%
4	Poznańska Korporacja Budowlana Pekabex S.A.	↔	444 116	442 558	1 558	0.4%
5	Adamietz	↗	382 911	487 592	-104 681	-21.5%
6	Budimex Group	↔	328 953	343 810	-14 857	-4.3%
7	Goldbeck Group	↑	316 519	154 606	161 912	104.7%
8	Unibep Group	↓	199 375	332 742	-133 367	-40.1%
9	PORR Group	↔	91 630	150 087	-58 457	-38.9%
10	Mostostal Warszawa Group	↔	46 032	30 758	15 274	49.7%
11	Strabag Group	↔	22 359	6 926	15 433	0.0%
12	Mirbud Group	↔	0	0	0	0.0%
13	Kajima Poland	↗	0	0	0	0.0%
14	Atlas Ward Poland	↗	0	0	0	0.0%
15	PUT Intercor		nd	nd	nd	nd
Total			3 651 792	3 523 786	128 006	4%
Average			260 842	251 699	9 143	4%

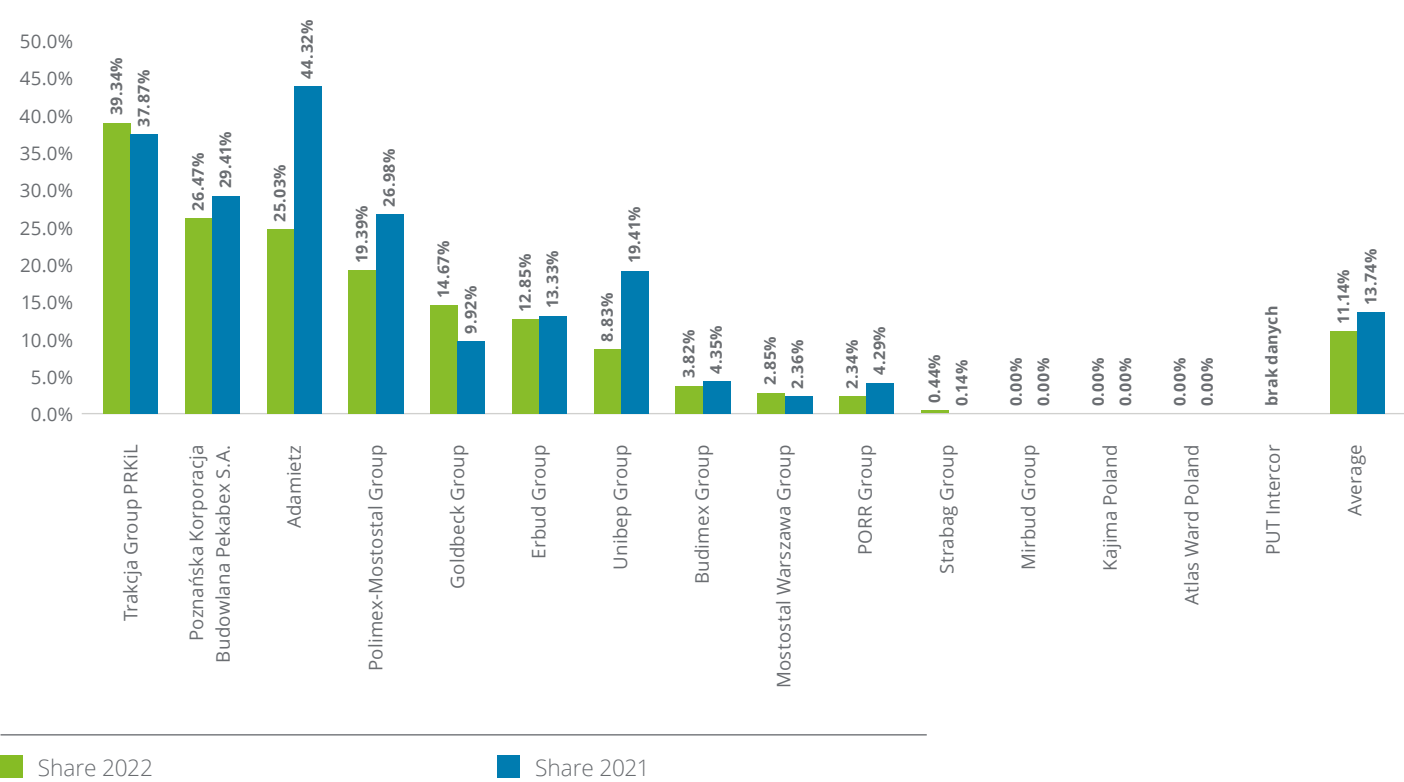
↗ New entity in the ranking ↑ Rise in the ranking ↓ Drop in the Ranking ↔ No change

Source: Financial statements 2022

opportunities to carry out contracts and customers for their services outside their home market. However, this is associated with major challenges and also requires significant expenditures. In the long term, getting into new markets and thus diversifying business risks will be crucial for further growth and for maintaining current sales volumes. Many companies are already executing contracts abroad (mainly on the Scandinavian and neighbouring markets). The industry is more and more interested in the eastern markets - especially companies with home-grown capital - although this is still associated with high risk. Foreign operations generate great opportunities, but also come with great risks, as shown by the current unstable political situation resulting from the ongoing armed conflict

in Ukraine or the unstable political situation in Belarus. In addition, companies must take into account the operating and business conditions in the countries in which investments are ultimately planned. Above all, local legal and technological requirements as well as local costs of equipment and workforce are of key importance. Geographical diversification (Table 1.6.1.1 and Table 1.6.1.2) remains one of the key trends that dominate the global strategies of large construction groups.

Chart 1.6.1.1: Sales of the fifteen largest construction companies in 2022 by region



Source: Financial statements 2022

Chart 1.6.1.1: Sales of the fifteen largest construction companies in 2022 by region

No.	Company name:	Domestic	Western Europe	Western Europe	Scandinavian	Asian	Other	"TOTAL (2022, PLN'000)"	Export total
1	Budimex Group	8 290 101	328 953					8 619 054	328 953
2	Strabag Group	5 045 922	21 420				939	5 068 281	22 359
3	PORR Group	3 827 059			862		90 768	3 918 690	91 630
4	Erbud Group	3 360 333	Export revenue value 495 316					3 855 649	495 316
5	Polimex-Mostostal Group	3 050 460	Export revenue value 733 743					3 784 203	733 743
6	Mirbud Group	3 319 329						3 319 329	0
7	Unibep Group	2 058 937	75 414	412	123 273			2 258 036	199 099
8	Goldbeck Group	1 841 206	Export revenue value 316 519					2 157 725	316 519
9	Kajima Poland	1 802 512						1 802 512	0
10	PUT Intercor	No information where the revenue is generated.						1 683 229	0
11	Poznańska Korporacja Budowlana Pekabex S.A.	1 233 829	209 685	1 163	232 776		492	1 677 945	444 116
12	Atlas Ward Poland	1 674 341						1 674 341	0
13	Mostostal Warszawa Group	1 568 305	36 891	9 141				1 614 337	46 032
14	Adamietz	1 156 686	Export revenue value 382 911					1 539 597	382 911
15	Trakcja PRKiL Group	911 119	5 666	524 032	61 140			1 501 957	590 838

*No data on where the revenue is generated abroad.
Source: Financial statements 2022

Chart 1.6.1.2: Sales of the fifteen largest construction companies in 2021 by region

No.	Company name:	Domestic	Western Europe	Western Europe	Scandinavian	Asian	Other	"TOTAL (2021, PLN'000)"	Export total
1	Budimex Group	7 567 382	343 810					7 911 192	343 810
2	Strabag Group	5 075 824	6 772				154	5 082 750	6 926
3	PORR Group	3 347 436			54 899		95 188	3 497 523	150 087
4	Erbud Group	2 688 583	Export revenue value 413 512					3 102 095	413 512
5	Polimex-Mostostal Group	1 682 395	Export revenue value 621 605					2 304 000	621 605
6	Mirbud Group	2 505 568						2 505 568	0
7	Unibep Group	1 381 276	46 245	83 787	202 711			1 714 018	332 742
8	Goldbeck Group	1 403 623	Export revenue value 154 606					1 558 229	154 606
9	Kajima Poland	1 200 245						1 200 245	0
10	PUT Intercor	No information where the revenue is generated.						1 237 895	0
11	Poznańska Korporacja Budowlana Pekabex S.A.	1 062 304	233 888	2 666	206 004			1 504 862	442 558
12	Atlas Ward Poland	819 161						819 161	0
13	Mostostal Warszawa Group	1 274 272	30 117	641				1 305 030	30 758
14	Adamietz	586 769	Export revenue value 487 592					1 074 360	487 592
15	Trakcja PRKiL Group	885 251	402	470 003	69 185			1 424 841	539 590

*No data on where the revenue is generated abroad.
Source: Financial statements 2022

1.6.2. Revenue by type

The revenue by type shows the diversification of operations of the largest construction companies in the general,

energy, road, and railway sectors. A significant part of the revenue is also derived from civil engineering construction.

Chart 1.6.2.1: Sales of the fifteen largest construction companies in 2022 by type

No.	Name:	General construction	Housing construction	Road and railway construction	Construction engineering	Energy construction	Other operations	"TOTAL (2022, PLN'000)"
1	Budimex Group	7 706 484					912 570	8 619 054
2	Strabag Group	4 702 201					366 080	5 068 281
3	PORR Group	1 280 200		2 391 086			247 404	3 918 690
4	Erbud Group	2 096 609		212 820	667 244	875 066	3 910	3 855 649
5	Polimex-Mostostal Group	810 032		181 468		1 641 057	1 151 646	3 784 203
6	Mirbud Group	3 088 477					53 457	3 141 934
7	Unibep Group	1 121 669		492 453		312 192	331 998	2 258 312
8	Goldbeck Group	No data						2 157 725
9	Kajima Poland	No data						1 802 512
10	PUT Intercor	1 634 495					15 754	1 650 249
11	Poznańska Korporacja Budowlana Pekabex S.A.	1 632 678					45 267	1 677 945
12	Atlas Ward Poland	1 662 588					11 752	1 674 341
13	Mostostal Warszawa Group	1 202 630			402 402		9 305	1 614 337
14	Adamietz	1 216 655					322 942	1 539 597
15	Trakcja PRKiL Group	151 247		1 157 427		154 749	38 534	1 501 957

Source: Financial statements 2022

Chart 1.6.2.2: Sales of the fifteen largest construction companies in 2022 by type

No.	Name:	General construction	Housing construction	Road and railway construction	Construction engineering	Energy construction	Other operations	"TOTAL (2021, PLN'000)"
1	Budimex Group	7 058 460					852 732	7 911 192
2	Strabag Group	4 862 511					220 239	5 082 750
3	PORR Group	950 778		2 364 926			181 819	3 497 523
4	Erbud Group	1 376 403		278 022	494 522	932 452	20 696	3 102 095
5	Polimex-Mostostal Group	458 719		73 350		1 052 620	719 311	2 304 000
6	Mirbud Group	2 245 136					161 530	2 406 666
7	Unibep Group	1 047 434		381 675			284 909	1 714 018
8	Goldbeck Group	No data						1 558 229
9	Kajima Poland	No data						1 200 245
10	PUT Intercor	1 210 355					6 743	1 217 097
11	Poznańska Korporacja Budowlana Pekabex S.A.	1 433 157					71 705	1 504 862
12	Atlas Ward Poland	801 663					17 498	837 810
13	Mostostal Warszawa Group	961 383			327 223		16 424	1 305 030
14	Adamietz	815 038					259 323	1 074 360
15	Trakcja PRKiL Group	23 498		1 316 605		42 874	41 864	1 424 841

Source: Financial statements 2022

In nominal terms, the highest revenue from non-construction operations was recorded by the Polimex Mostostal Group and Budimex Group, which generated revenue of PLN 1.2 billion and PLN 913 million respectively.

In case of the Polimex Mostostal Group, it was generated mainly from production activities, i.e. production and supply of steel product structures, including gratings, various transport pallets, and from providing other services related to steel

products, such as anti-corrosion protection of steel structures.

Table 1.6.2: Other operations of the largest construction companies in 2022

No.	Company name:	Other operations 2022	Other operations 2021	Nominal change	Percentage change
1	Polimex-Mostostal Group	↑ 1 151 646	719 311	432 335	60.1%
2	Budimex Group	↓ 912 570	852 732	59 838	7.0%
3	Strabag Group	↑ 366 080	220 239	145 841	66.2%
4	Unibep Group	↓ 331 998	284 909	47 089	16.5%
5	Adamietz	↗ 322 942	259 323	63 619	24.5%
6	PORR Group	↔ 247 404	181 819	65 585	36.1%
7	Mirbud Group	↔ 53 457	161 530	-108 073	-66.9%
8	Poznańska Korporacja Budowlana Pekabex S.A.	↔ 45 267	71 705	-26 438	-36.9%
9	Trakcja PRKiL Group	↔ 38 534	41 864	-3 330	-8.0%
10	PUT Intercor	↑ 15 754	6 743	9 012	100.0%
11	Atlas Ward Poland	↗ 11 752	17 498	-5 745	-32.8%
12	Mostostal Warszawa Group	↔ 9 305	16 424	-7 119	-43.3%
13	Erbud Group	↓ 3 910	20 696	-16 786	-81.1%
14	Goldbeck Group	nd	nd	nd	nd
15	Kajima Poland	nd	nd	nd	nd
Total		3 510 620	2 854 792	655 827	23%
Average		270 048	219 599	50 448	23%

↗ New entity in the ranking

↑ Rise in the ranking

↓ Drop in the Ranking

↔ No change

Source: Financial statements 2022



Mariusz Górecki
President of the Management Board,
Atlas Ward

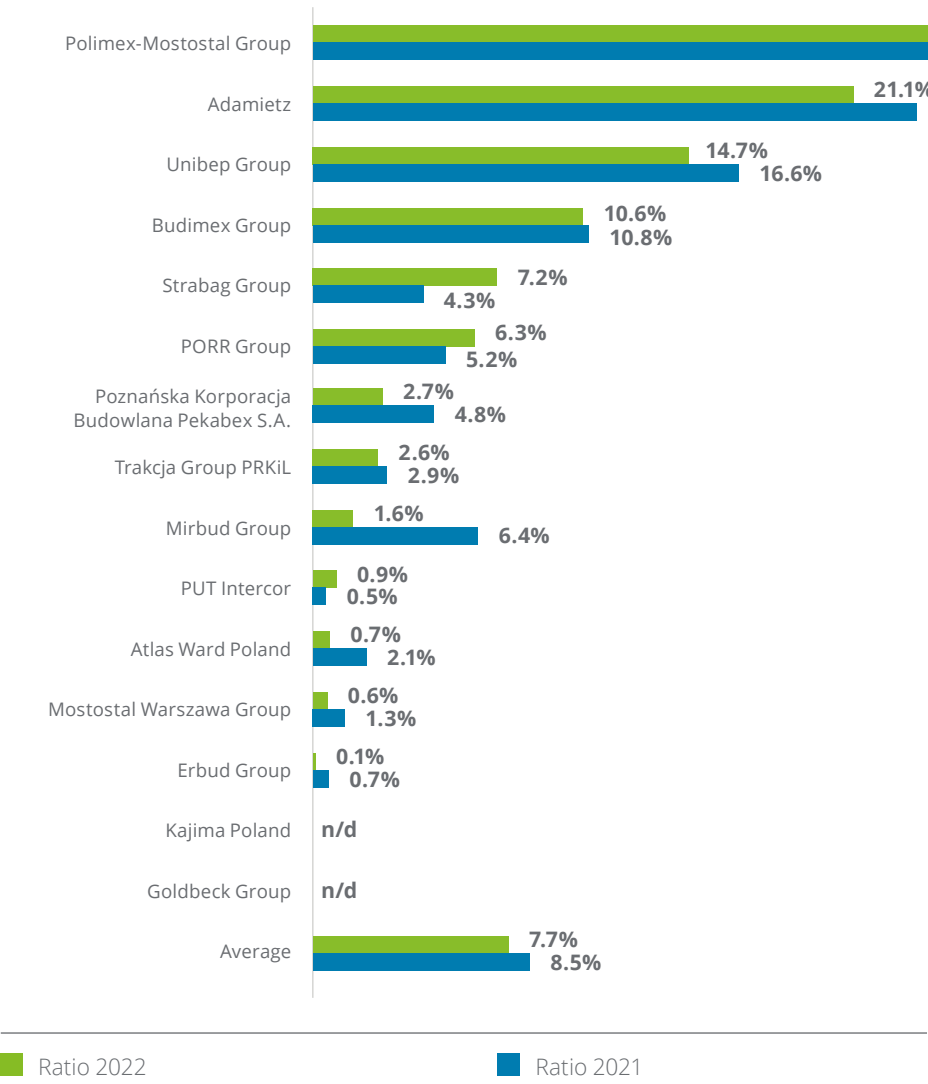
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“At Atlas Ward Poland we invest in technological innovations. Digitisation, automation, and energy efficiency are fundamental trends transforming the construction industry. We work in the BIM methodology, seeking optimal and quality solutions for our industrial and logistics customers - also in terms of sustainable processes and material use. Our goal is efficient construction, always with the customer at the forefront.”

The average percentage share of revenue from other activities, compared to 2021, fell to 7.7% or 0.8 p.p. However, the Strabag Group, PORR Group and PUT Interco increased their share of non-construction

operations in total revenue compared to the previous year. The Polimex Mostostal Group saw the highest ratio of revenue from other operations to total operating revenue which stood at 30.4%

Chart 1.6.2.3: Share of revenue from other (non-construction) operations in total operating revenue (2021-2022)



Source: Financial statements 2022

1.7. Market cap of the largest construction companies listed on the Warsaw Stock Exchange

Eight out of fifteen largest construction companies presented in our ranking are listed on the Warsaw Stock Exchange. At the end of 2022, the total market value of the eight companies in this ranking listed on the Warsaw Stock Exchange was more than PLN 10.5 billion, which was PLN 1.2 billion higher than the total market value of these entities at the end of 2021. In percentage terms, an increase in total market capitalisation amounted to 13%.

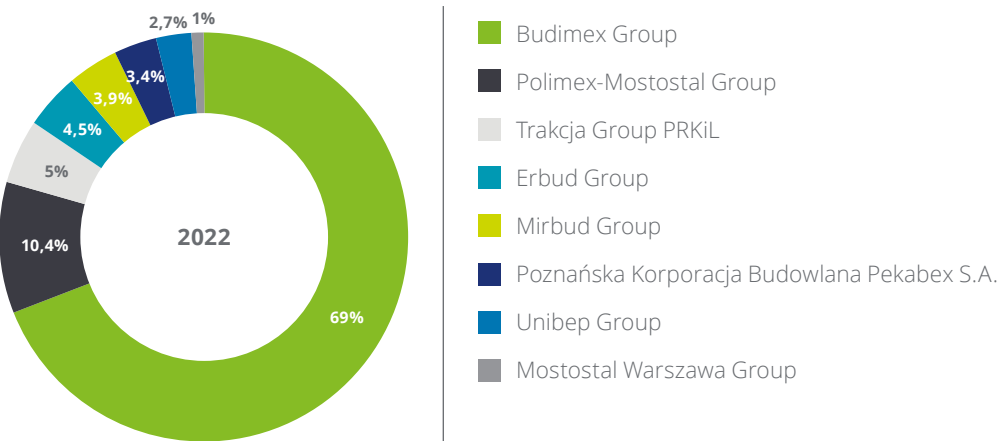
Budimex has been an unquestionable leader in terms of market value among construction companies since 2011, with a capitalisation of PLN 7.3 billion (up by 21.6% vs. 2021), which accounts for approximately 69% of the total capitalisation value of all companies in the table. The Polimex Mostostal Group ranked second for the second year in a row, and Trakcja Group ranked third, with the capitalisation of PLN 1.1 billion and PLN 528 million respectively. It is worth noting that the largest increase

in capitalisation in percentage terms at the end of 2022 was recorded by the Trakcja Group (up by 218%).

Chart 1.7.1: Market cap share of the largest construction companies listed on the Warsaw Stock Exchange as at 31 December 2022

No.	Company name:	Market cap 31 Dec 2022	Market cap 31 Dec 2021	Nominal change	Percentage change
1	Budimex S.A.	7 250 548	5 961 278	1 289 270	21.6%
2	Polimex-Mostostal S.A.	1 089 857	922 813	167 044	18.1%
3	Trakcja PRKiL S.A.	528 228	165 986	362 242	218.2%
4	Erbud S.A.	471 764	768 771	-297 008	-38.6%
5	Mirbud S.A.	412 849	360 555	52 294	14.5%
6	Pekabex	353 778	595 836	-242 058	-40.6%
7	Unibep S.A.	287 579	361 228	-73 648	-20.4%
8	Mostostal Warszawa S.A.	112 000	129 200	-17 200	-13.3%
Total		10 506 602	9 265 667	1 240 935	13%

Chart 1.7.1: Market cap share of the largest construction companies listed on the Warsaw Stock Exchange as at 31 December 2022



When analysing the above data, it is clear that still a relatively small proportion of revenue is generated from activities other than those directly related to construction projects. Nonetheless, it is worth emphasising that large construction groups are looking for opportunities to diversify their activities and are making investments that are not directly related to construction and property development activities, but involve, for example, facility management, supply and installation of specialised

industrial equipment, construction consultancy and advisory services.

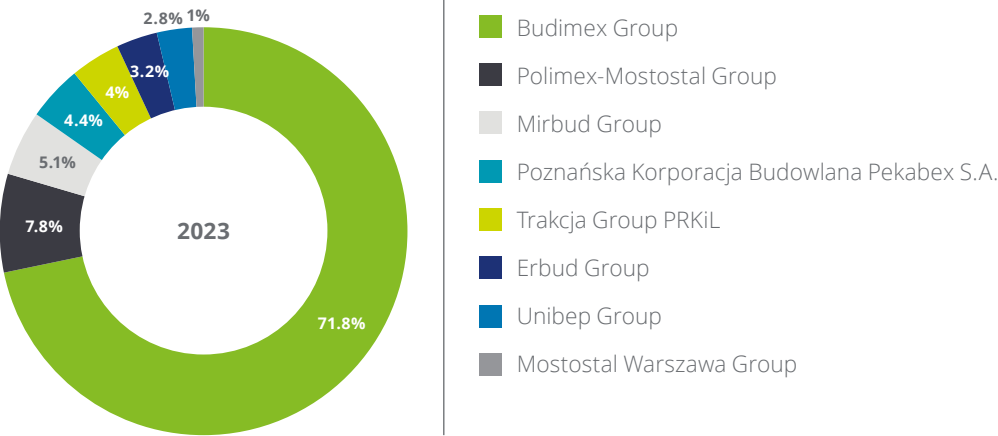
In the first half of 2023, there is a marked trend of improved results compared with 2022, reaching a total of 21% growth in the period January-June 2023. It should be noted that the valuation of Pekabex, Mirbud S.A., Budimex S.A. and Unibep S.A. has a key influence on the capitalisation of the largest construction companies. An increase in capitalisation of the selected

entities in the ranking at the end of June 2023 oscillated between 15% and 58.6%. Only three entities recorded a decrease in capitalisation, and these were Erbud S.A. (down by 14.4%), Polimex-Mostostal S.A. (down by 8.8%) and the Trakcja Group S.A. (down by 4.5%). The largest share in the total capitalisation of the companies in this ranking is held by the Budimex Group. Its capitalisation amounts to almost PLN 9.2 million and accounts for approximately 72% of the total value.

Table 1.7.2: Market cap of the largest construction companies listed on the Warsaw Stock Exchange as at 30 June 2023 (PLN '000)

No.	Company name	Market cap 30 Jun 2023	Market cap 31 Dec 2022	Nominal change	Percentage change
1	Budimex S.A.	9 165 305	7 250 548	1 914 757	26.4%
2	Polimex-Mostostal S.A.	993 409	1 089 857	-96 448	-8.8%
3	Mirbud S.A.	645 879	412 849	233 030	56.4%
4	Pekabex	561 079	353 778	207 301	58.6%
5	Trakcja PRKiL S.A.	504 676	528 228	-23 552	-4.5%
6	Erbud S.A.	403 825	471 764	-67 939	-14.4%
7	Unibep S.A.	361 228	287 579	73 648	25.6%
8	Mostostal Warszawa S.A.	128 800	112 000	16 800	15.0%
Total		12 764 202	10 506 602	2 257 600	21%

Chart 1.7.2: Market cap share of the largest construction companies listed on the Warsaw Stock Exchange as at 30 June 2023



Source: Deloitte's analysis based on data available on the WSE website.



Mostostal Warszawa: Revitalisation of the old Przędzalnia in Łódź

In the first five months of 2022, the WIG-Construction index did not show any significant deviations from a trend set by the WIG index. This means that the index values were in line with the market's behaviour during this period. From May 2022 to mid-July 2023, there was a clear

upward trend in the WIG-Construction index. From mid-July onwards, the index fluctuated, and after a slight drop, it recorded a peak value of more than 6.385 points in mid-August. The WIG-Construction index has not recorded such a high value since September 2008.

The strong appreciation of the index was caused, among others, by an increase in the market valuation of Budimex, whose share in the WIG-Construction portfolio is over 57%.

Chart 1.7.3: Changes in WIG and WIG-Construction indices since the beginning of 2022

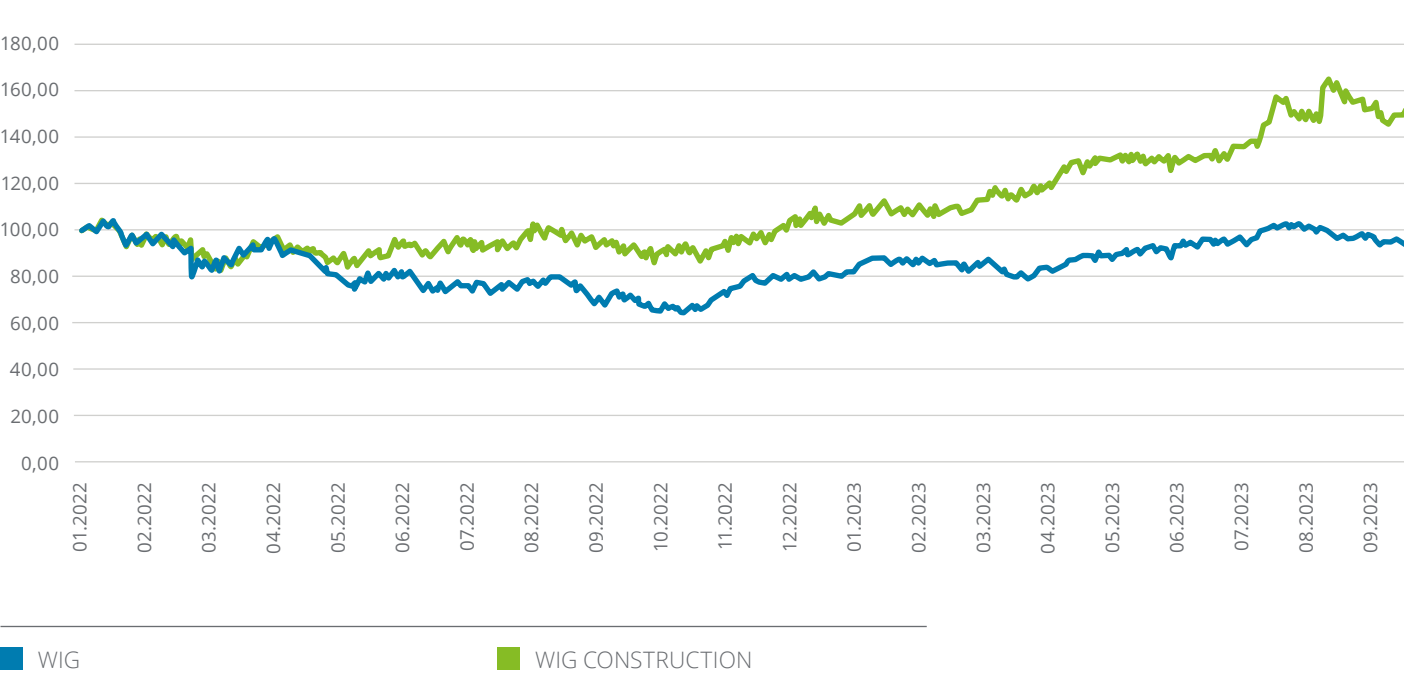


Chart 1.7.4: Construction and installation output in 2022, YoY



Source: Deloitte's analysis based on data available on the WSE website.

Chart 1.7.5: Construction and installation output in 2023, YoY



In the first half of 2023, the companies listed on the Warsaw Stock Exchange recorded only a 1% increase in sales revenue compared with the same period in 2022. As every year, the Budimex Group is the largest player in the market with revenues of over PLN 4.3 billion (up by 8%).

In the period analysed below, the Trakcja Group achieved the largest increase in sales - by 39% - compared with the same period in 2022.

Table 1.7.4: Revenue of companies listed on the Warsaw Stock Exchange from 30 June 2023 to 30 June 2022

No.	Company name	Revenue June 2023	Revenue June 2022	Nominal change	Percentage change
1	Budimex Group	4 317 944	3 998 229	319 715	8.0%
2	Polimex-Mostostal Group	1 654 156	1 904 283	-250 127	-13.1%
3	Erbud Group	1 582 190	1 790 117	-207 927	-11.6%
4	Unibep Group	1 235 601	1 019 365	216 236	21.2%
5	Mirbud Group	1 195 181	1 351 089	-155 908	-11.5%
6	Mostostal Warszawa Group	775 321	716 323	8.2%	31.0%
7	Poznańska Korporacja Budowlana Pekabex S.A.	772 290	837 954	-65 664	-7.8%
8	Trakcja PRKiL Group	771 990	555 423	216 567	39.0%
Total		12 304 673	12 172 783	131 890	1.08%

Source: Deloitte's analysis based on data available on the WSE website.

The results from sales in the first half of 2023 for the WSE-listed companies in the ranking collectively are higher compared with the first half of 2022, recording a 12% increase. Despite the armed conflict in Ukraine, the construction sector in Poland managed to carry on with executing their contracts, thus, almost all entities managed to achieve a positive operating income and a positive net result. The only entity in the ranking that significantly increased its loss compared with H1 2022 is the Trakcja Group - the nominal change in the analysed period amounts to PLN 157 million.

Despite good results, the industry is aware of looming problems due to challenges emerging in the economy (both locally and globally). In the property development market, there were already signs of a major meltdown in 2022 and a significant reduction in demand for housing projects (due to rising interest rates). There is a chance of reversing this trend due to new programmes to support consumers, but a return to the pre-pandemic boom will only be possible in the long term. In terms of infrastructure, companies have ditched

most of unprofitable contracts won in the previous years. This can be seen, for example, by the significant improvement in the net results of the analysed entities at the end of June 2023. A 120% increase in the net results was recorded compared with the same period in 2022. The results are presented in Table 1.7.6.

The revised valorisation option is of crucial importance for the existing and future construction contracts as it has a positive impact on stabilising the profitability of these contracts. Of course, there is a question of whether the changed rules of valorisation (increasing its level) will be sufficient to reflect the price spikes in the economy. For the stability of the construction industry, it is important which calculation method is chosen, which goods are used as a benchmark and which part of the construction industry is analysed. Emerging challenges add to growing uncertainty in the sector. Ensuring projects continuity is of paramount importance. In addition, infrastructure projects implemented as part of government programmes are gaining in significance.

The reduced supply in the commercial project market (housing, office, and retail markets) will certainly strain the industry further. Hence, it is crucial to ensure a continuous inflow of new projects, as this allows for proper planning of resource utilisation, while on the other hand stimulates innovations and investments, which is necessary to further improve efficiency and safety of work carried out. And ultimately meeting the increasingly emerging ESG requirements.

Of course, this situation may change especially in the context of the ongoing war in Ukraine and the workforce, which has recently seen an outflow from the construction market in Poland. It is important to know that the employment of Ukrainian nationals in the construction

industry in Poland was around 11%. Further issues include the impact of rising prices of raw materials and commodities. Large public investments carried out by GDDKiA and PKP PLK will continue to be the main growth driver, but investments in the energy construction sector (lines/

pipelines), as well as maritime construction (mainly port modernisation) will also play a significant role.

Table 1.7.5: Gross margin on sales of companies listed on the Warsaw Stock Exchange from 30 June 2023 to 30 June 2022

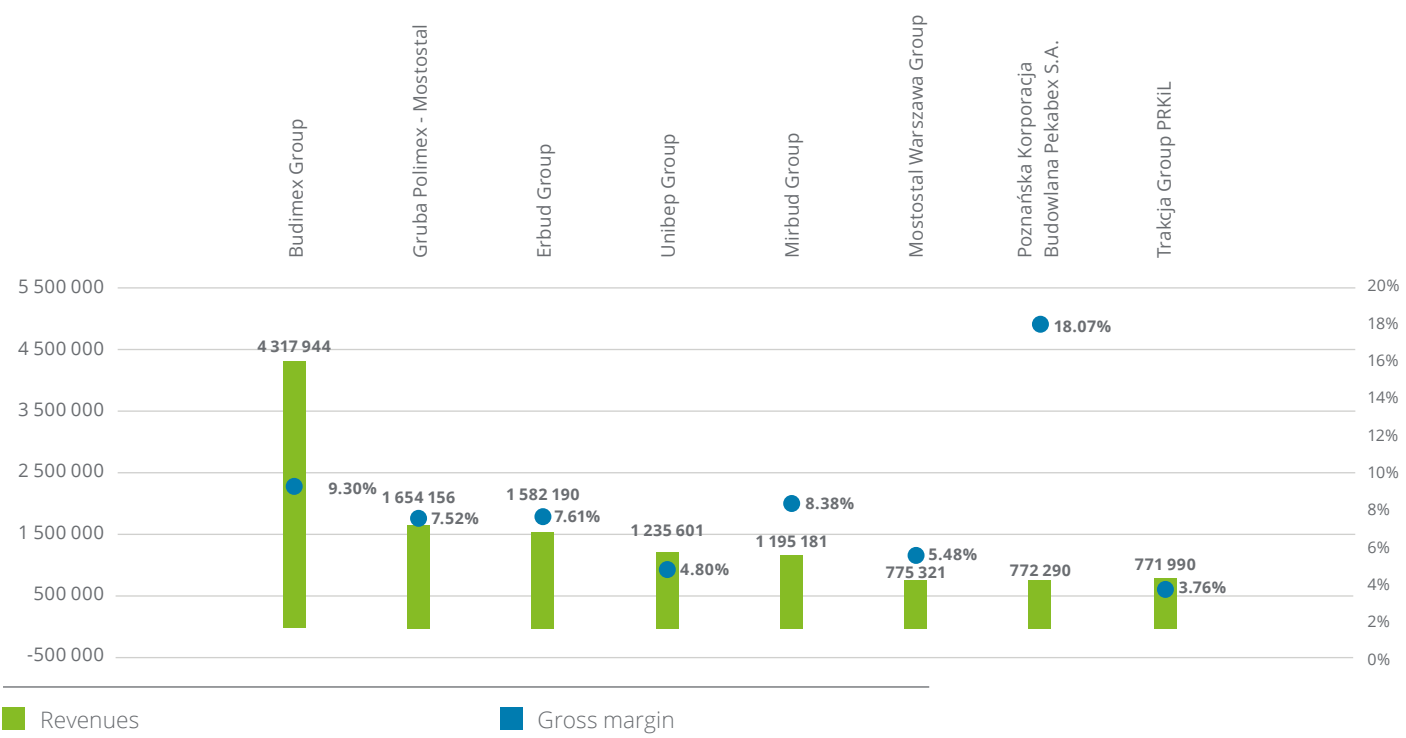
No.	Company name	Sales profit/loss June 2023	Sales profit/loss June 2022	"Nominal change Sales profit/loss"	"Percentage change Sales profit/loss"
1	Budimex Group	401 393	395 988	5 405	1.4%
2	Poznańska Korporacja Budowlana Pekabex S.A.	139 542	139 542	128 115	11 427
3	Polimex-Mostostal Group	124 315	172 866	-48 551	-28.1%
4	Erbud Group	120 480	110 676	9 804	8.9%
5	Mirbud Group	100 112	102 846	-2 734	-2.7%
6	Unibep Group	59 256	89 732	-30 476	-34.0%
7	Mostostal Warszawa Group	42 507	38 969	3 538	9.1%
8	Trakcja PRKiL Group	29 060	-128 016	157 076	122.7%
Total		1 016 665	911 176	105 489	12%

Table 1.7.6: Net profit/loss of companies listed on the Warsaw Stock Exchange from 30 June 2023 to 30 June 2022

No.	Company name	Sales profit/loss June 2023	Sales profit/loss June 2022	"Nominal change Sales profit/loss"	"Percentage change Sales profit/loss"
1	Budimex Group	280 781	208 650	72 131	34.6%
2	Poznańska Korporacja Budowlana Pekabex S.A.	46 082	46 082	28 003	18 079
3	Polimex-Mostostal Group	34 386	89 443	-55 057	-61.6%
4	Mirbud Group	28 796	39 500	-10 704	-27.1%
5	Unibep Group	9 071	38 373	-29 302	-76.4%
6	Mostostal Warszawa Group	4 859	762	4 097	537.7%
7	Erbud Group	-4 659	-1 449	-3 210	-221.5%
8	Trakcja PRKiL Group	-17 577	-229 637	212 060	92.3%
Total		381 739	173 645	208 094	120%

Source: Deloitte's analysis based on data available on the WSE website.

Chart 1.7.7: Revenue to gross margin of companies listed on the Warsaw Stock Exchange as at 30 June 2023



Source: Deloitte's analysis based on data available on the WSE website.

The anticipated negative impact of the armed conflict on the industry was indicated in the annual reports of the largest construction companies prepared for the financial years 2021 and 2022. The reports described significant uncertainty related to developments in Ukraine. The war’s effects were recognised in the financial statements as non-adjusting events, for the significant changes were recorded in business activities and micro and macroeconomic conditions were deteriorated. These effects included (1) restrictions on transport and temporary disruption to supply chains, (2) reduced availability of foreign workers, mainly of Ukrainian origin, (3) spikes in prices of goods and raw materials, (4) weakening of local currencies. Currently, the situation at our eastern neighbour does not threaten the construction industry in continuing and maintaining the construction contracts across the country. At most construction sites, the construction companies are carrying on with their work. So far, no significant delays in completing the

investments were reported. Furthermore, the companies have not reported any requirements for asset impairment.

The companies continuously monitor the market situation related to the war and its impact on liquidity risk and possible delays in their construction projects. The further development of the macroeconomic situation in Poland, in particular in the context of disruptions to the supply chain caused by the armed conflict in Ukraine, remains uncertain. The lack of availability of certain resources may result in a deterioration of economic indicators in the following quarters and have an impact on damping the demand for new flats and limiting investment opportunities in infrastructure construction. The main challenge regarding the war is the question of how to organise construction work properly. In the short term, according to the contractors there will be no shortage of projects in the construction sector. The order books of the construction companies have been largely filled with public tenders

executed in recent years. Unfortunately, the current market situation may affect the efficiency of ongoing investments (delays in deliveries / interruptions in supply chains / lack of workers) and, in the case of stoppages, longer deadlines for the completion of works.

The war in Ukraine could prove to be a major logistical challenge for players in the construction industry, who are largely working with private investors. Companies are aware of the problems in the supply chain and are seeing an increase in prices of materials, however, they are completing contracts without any major disruptions.



Wojciech Trojanowski
Member of the Management Board,
STRABAG Sp. z o.o.

“

Looking at the construction market through the lens of the last quarters, it can be seen that the implementation conditions have become by far less favourable in certain sectors. The situation in the rail sector the railways has indicated stagnation for more than a year, which is the result of a limited supply of contracts as well as the uncertain prospect of new tenders. At the same time, we are witnessing a fierce competition between both well-established entities and new local and foreign ones, who are striving to obtain contracts at any price. These are not optimal conditions, but looking from the perspective of the STRABAG Group, our situation with new orders is good, as thanks to the diversification of our activities, our order book is successively filled with new contracts and currently amounts to over PLN 8 billion. Despite delays in the execution of road contracts, due to difficulties in obtain permits to execute road investments (ZRID), this market segment is still favourable to us. Historically, as now, road construction has constituted a large part of our backlog. We have built many kilometres of motorways and expressways, and we are now also strongly involved in tenders organised by provincial, district and municipal road managers. We strive to have a positive impact on the development of infrastructure in Poland, as well as on the overall environment. Under the framework of the sustainable development strategy we are implementing, which is based on the three P's (People-Planet-Progress), we are investing in pro-employee initiatives (e.g. allowances for public transport travel or vocational training resulting in higher staff retention), the latest technologies on construction sites (building designs based on BIM and digital machine control) as well as projects in the RES sector, which will enable us to achieve zero carbon by 2040.”

1.8. Summary of the eleven editions of the report

This is the eleventh edition of the report of the Largest Construction Companies in Poland. Over the years, we have presented the most relevant data and financial analyses of the construction entities with the highest revenues in recent years illustrating how the largest players in the market have evolved and how the size of their revenues has changed. The table below shows the entities that have been ranked as the TOP 15 construction companies over the last few years and

positions they have held in the ranking. Following it, we can conclude that the Budimex Group and Strabag Group invariably have been the most significant players in terms of revenue over the last few years. A few entities did not manage to hold their position among the TOP 15, sometimes these companies returned to our ranking after several years. Some companies have permanently left the ranking and were replaced by new players.

This year’s debut belongs to Kajima Poland, Atlas Ward or Adamietz, ranking 9th, 12th, and 14th respectively. The Budimex Group has been an undisputed leader of the ranking since 2017. It has been followed closely by the Strabag Group with the second place in the ranking. The PORR Group, which has firmly established its position on the Polish market over the last few years, has kept its third place, as has the Erbud Group, holding the fourth place since 2020. The Unibep Group also

Table 1.8.1: The largest construction companies in Poland by revenue over the recent years. Editions 2013-2023

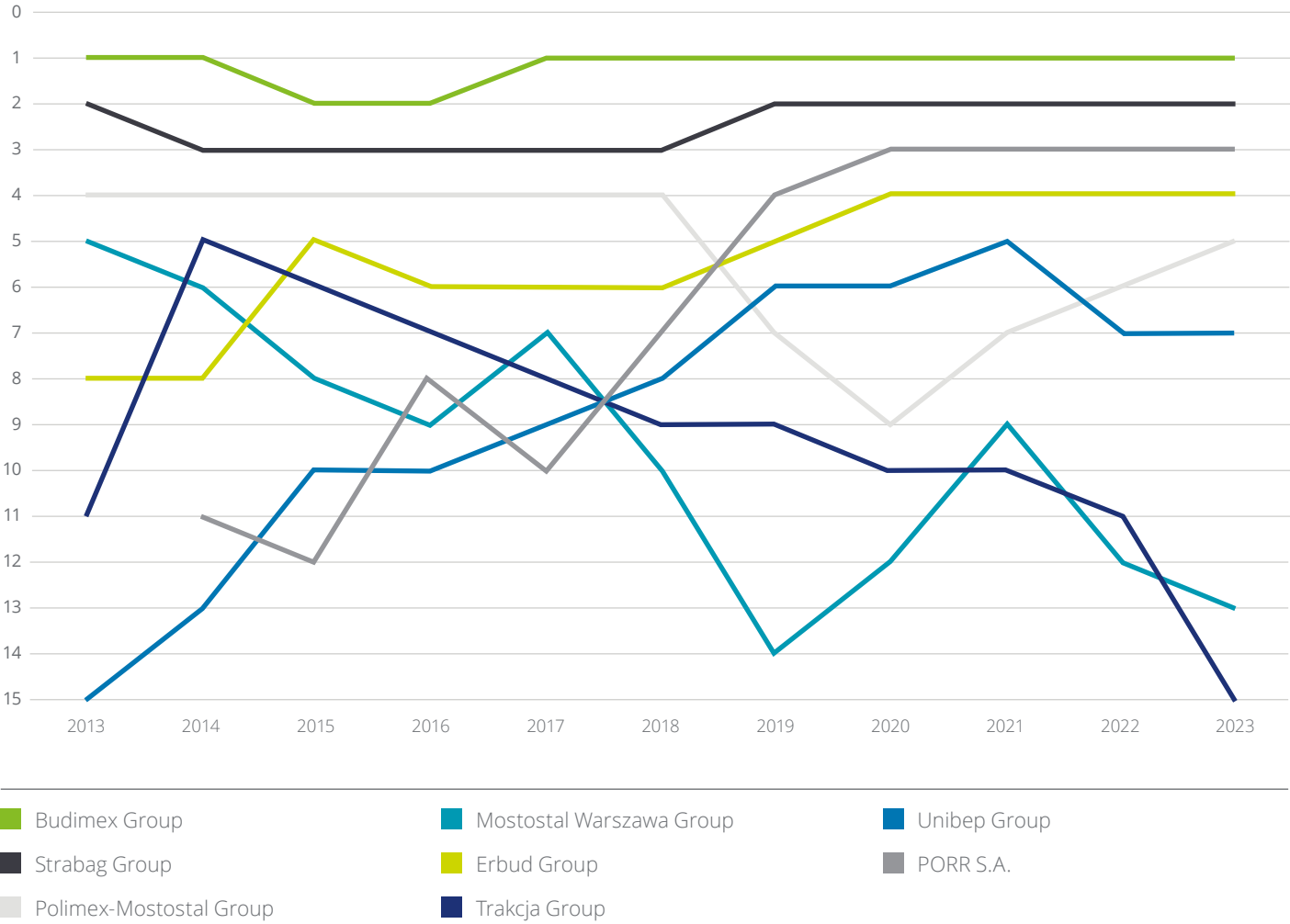
No.	Company name / Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
1	Budimex Group	1	1	2	2	1	1	1	1	1	1	1
2	Strabag Group	2	3	3	3	3	3	2	2	2	2	2
3	Skanska	3	2	1	1	2	2	3	5	14	13	-
4	Polimex-Mostostal Group	4	4	4	4	4	4	7	9	7	6	5
5	Mostostal Warszawa Group	5	6	8	9	7	10	14	12	9	12	13
6	PBG Group	6	7	7	5	5	5	11	11	12	-	-
7	Mota-Engil Central Europe	7	9	-	14	14	15	-	-	13	-	-
8	Erbud Group	8	8	5	6	6	6	5	4	4	4	4
9	Eurovia	9	15	-	-	-	-	15	-	-	-	-
10	Warbud	10	10	11	13	12	11	8	7	6	10	-
11	Trakcja Group	11	5	6	7	8	9	9	10	10	11	15
12	Elektrobudowa Group	12	14	9	11	11	12	-	-	-	-	-
13	Bilfinger Infrastructure	13	-	-	-	-	-	-	-	-	-	-
14	Hochtief Poland	14	-	-	15	-	13	-	-	-	-	-
15	Unibep Group	15	13	10	10	9	8	6	6	5	7	7
16	PORR S.A.	-	11	12	8	10	7	4	3	3	3	3
17	Mirbud Group	-	12	13	-	15	14	13	-	11	5	6
18	Mostostal Zabrze Group	-	-	14	-	13	-	-	-	-	-	-
19	Torpols Group	-	-	15	12	-	-	10	8	8	-	-
20	PUT Intercor	-	-	-	-	-	-	12	14	-	15	10
21	Goldbeck Group	-	-	-	-	-	-	-	13	-	8	8
22	ZUE Group	-	-	-	-	-	-	-	15	-	-	-
23	Dekpol Group	-	-	-	-	-	-	-	-	15	14	-
24	Poznańska Korporacja Budowlana Pekabex	-	-	-	-	-	-	-	-	-	9	11
25	Kajima Poland	-	-	-	-	-	-	-	-	-	-	9
26	Atlas Ward Poland	-	-	-	-	-	-	-	-	-	-	12
27	Adamietz	-	-	-	-	-	-	-	-	-	-	14

Source: Deloitte's own analysis

retained its position compared with the last year’s edition. The Polimex-Mostostal Group moved up by one notch to the fifth position, while the largest fall was recorded by the Trakcja Group, ranking the last. Chart 1.9.1 takes into account only those entities which have continuously appeared in the ranking over the past years. The revenues of the largest construction entities included in the rankings have been on an upward trend over the years (excluding the record-breaking year 2012 driven by investments prior to EURO 2012). It results from the current good economic situation and the large number of investments made in the construction sector with European funds.

The chart below shows how the barrier to entry into the ranking based on revenue (revenue of the 15th ranked entity) has evolved over the last few years. The barrier to entry has increased dynamically, which may indicate both the increasing value of the market as a whole and the growing dominance of the largest players in the sector in recent years.

Chart 1.8.1: Change of position in the ranking of the largest construction companies in Poland by revenue over the recent years. Editions 2013-2023.



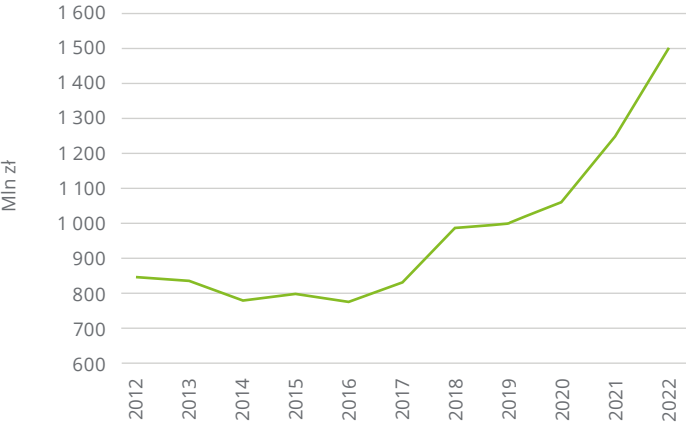
Source: Deloitte's own analysis.

Chart 1.8.2: Total revenues of the largest construction companies in Poland (Deloitte's ranking) in 2012-2022 (PLN million).



Source: Deloitte's own analysis.

Chart 1.8.3: Entry barrier to the ranking of the largest construction companies in Poland in 2012-2022 (PLN million)



Source: Deloitte's own analysis.



MIRBUD S.A.: Construction of A1 motorway, Piotrków Trybunalski - Kamieński section, Kamieński junction



Chapter 2

Development prospects of construction companies in Poland

2.1. Introduction - key factors driving growth of the construction market in Poland

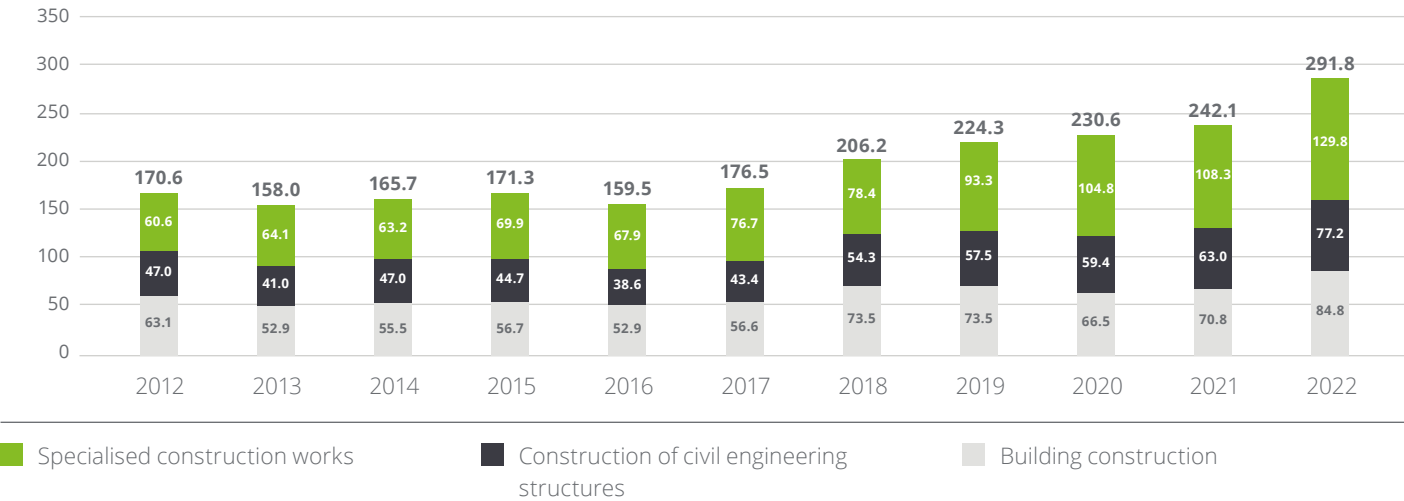
In 2022, construction and installation output measured in current prices increased by 20.5% year-over-year (in fixed prices - 8.8% YoY). During this period, construction companies carried out investments worth PLN 291.8 billion (vs. PLN 242.1 billion in 2021). This increase in value was significantly influenced, as in previous years, by the realisation of infrastructure investments financed by EU funds.

In line with the historical trend, a key driver of construction output growth in 2022 was the civil engineering sector (up by 22.5% YoY). The building construction and specialised construction sectors recorded comparable year-over-year growth of 19.9% and 19.8% respectively.

Over the seven months of 2023, a general trend of declining growth in construction and installation output is evident. In July 2023, construction and installation output increased by 1.1% year-over-year. A 6.6% increase in February 2023 year-over-year was largely due to infrastructure investments, which include the completion of investment tasks carried out with funds from the previous EU perspective (construction of civil engineering structures +21.5% YoY). In both months in which construction and installation output decreased compared with the previous year, i.e. March and May, a drop in production was seen within the building investment sector related to the construction of buildings.

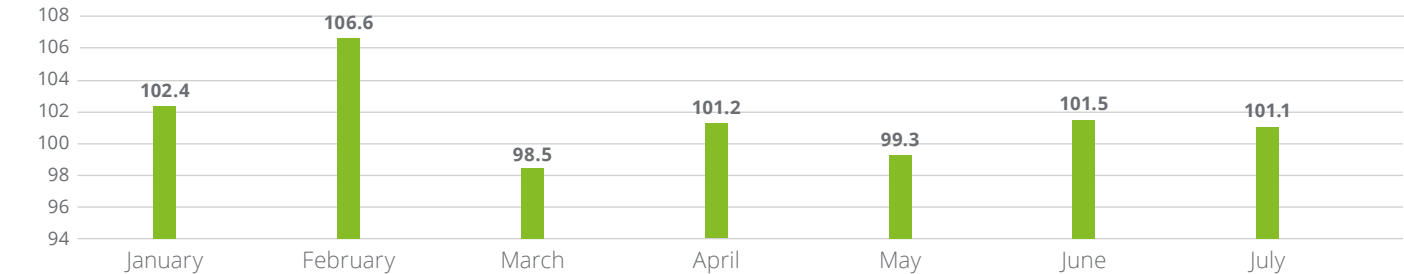
In 2022, the structure of the construction market changed slightly compared with the previous year. Non-residential buildings accounted for the largest share of the market (31.8%) and were the second largest segment of the construction and installation market in 2021. Transport infrastructure (28.8%) and residential buildings (17.5%) were the second and third largest market segments. The remainder was pipelines, telecommunications and power lines, facilities on industrial sites and other civil engineering structures.

Construction and installation market by segment in Poland 2012-2022 [PLN billion]



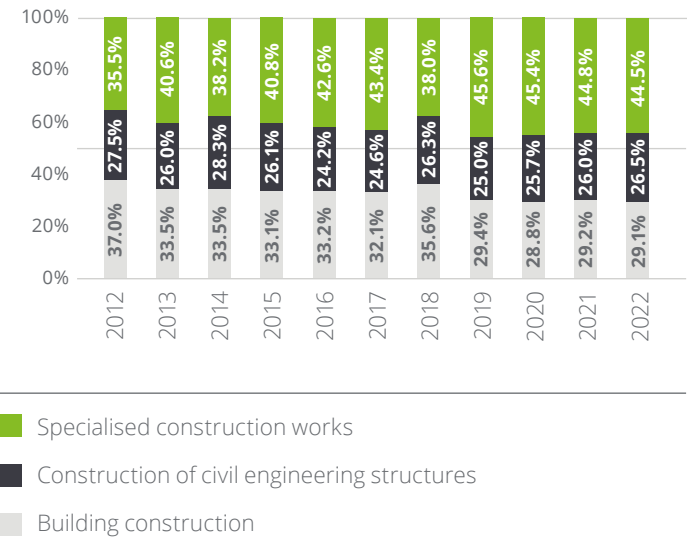
Source: Statistics Poland

Dynamics of construction and installation output during 7 months of 2023 YoY (%)



Source: Statistics Poland

Structure of the construction and installation market in Poland 2012-2022



- Specialised construction works
- Construction of civil engineering structures
- Building construction

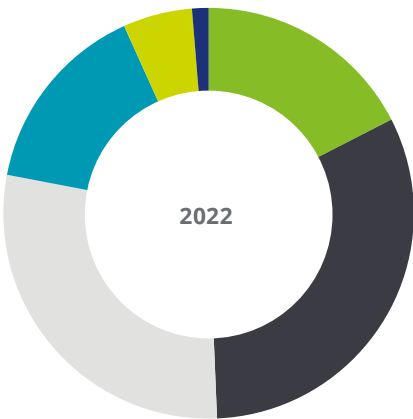
Source: Statistics Poland

The key investors in the Polish construction market are public entities, accounting for more than half of domestic construction output.

Infrastructure projects currently underway, in particular railway and road infrastructure investments, are expected to lead to an increase in construction output in the following years. In 2023, there was a decline in the growth rate of material and energy prices. According to the Statistics Poland (GUS), in August this year, the prices of construction and installation output increased by 9.8% compared with the same month of the previous year, which means a decrease in the dynamics by 4.0 p.p. compared with the same period in 2022.

EU funds have been important for the Polish construction sector for years. According to the 2021-2027 Cohesion Policy budget, Poland will be the largest beneficiary receiving a total of EUR 76 billion for investments in social and economic development, a significant part of which will

Structure of the construction and installation market in Poland in 2022



- Residential buildings
- Non-residential buildings
- Transport infrastructure
- Pipelines, telecommunications lines, power transmission lines
- Industrial site facilities
- Other civil engineering structures check

Source: Statistics Poland

be allocated to the further development of, among others, road, and rail infrastructure.

The General Directorate for National Roads and Motorways is responsible for coordinating the implementation of investments in the construction and modernisation of road infrastructure in Poland. In 2022, 103 tasks with a total length of over 1,325.9 km were completed. Also, 322 km of new roads were delivered, tenders were announced for the implementation of 20 sections with a total length of 226.8 km and 24 contracts were signed for tasks with a total length of 333.4 km and a value of PLN 12.8 billion.

The realisation of road investments in Poland is defined by the Governmental Programme for the Construction of National Roads (RPBDK) until 2030 (with the perspective until 2033), which aims to ensure the efficient operation of road passenger and freight transport. The programme is financed, in particular,

from the National Road Fund, which is fed primarily from EU funds. According to the latest amendment to the resolution on the national road construction programme, the funding limit was increased by PLN 5.1 billion from PLN 294.4 billion to approximately PLN 299.5 billion. In relation to road construction, investments of the 100 Ring Roads Construction Programme for 2020-2030 (PB100) are also being carried out. As follows from its name, the programme involves the construction of 100 ring roads around the national roads with a total length of around 820 km. The government will allocate PLN 28 billion for the programme. The Programme for Strengthening the National Road Network until 2030, which is the first medium-term document on the comprehensive maintenance of the national road network, also came into force in 2022. The cost of implementing the tasks included in the programme is PLN 58.3 billion.

The National Railway Programme (KPK) until 2030 (with the perspective until 2032) remains a driving force behind the railway segment in Poland. It was last updated in August 2023.

The programme assumes the allocation of a total of PLN 170.2 billion over the entire duration of the railway investment programme, i.e. 2014-2032. The level of expenditure incurred under the programme amounted to PLN 9.3 billion in 2022, an increase of PLN 0.6 billion compared with 2021. From the start of the KPK until the end of December 2022, expenditure amounted to PLN 54.0 billion, i.e. 31.7% of the value of the updated programme. Compared with the original plan of 2015, the implementation reached 311.3% (at that time, PLN 3.0 billion of expenditure was planned for 2022, while the total for 2014-2023 was PLN 67.5 billion).

The development of railway construction is also influenced by the planned transfer of 30% of road freight transport to other environmentally friendly modes of transport by 2030, to which the EU Member States have committed themselves. The realisation of the above objective will directly translate into new projects in the railways over the next few years. In view of the economic situation and the difficulties faced by the construction industry in 2022, such as soaring costs of performing the concluded contracts due to a significant increase in the prices of materials and energy, rising costs of servicing loans, and wage pressure, legislative changes were introduced to update the valorisation indices for the remuneration of contractors in public contracts.

Originally, the valorisation mechanism was introduced in 2019, allowing a maximum of 5% revision of settlements. Then, following the increasing cost pressures, it was updated to +/-10% in 2021. In November 2022, law came into force amending the provisions of the Public Procurement Law and introducing additional regulations aimed at ensuring continuity in the execution of contracts. The most important point concerns the establishment of a

legal basis for amending the provisions of contracts regarding the amount of contractors' remuneration, including the introduction of new or modification of existing valorisation clauses. No restrictions have been imposed either on the manner in which the valorisation is to take place or on the procedure to be followed by the parties. Contracts in progress on the date of entry into force of the regulation, as well as contracts concluded on the basis of the repealed Public Procurement Law, are covered by the amendments.

However, according to entrepreneurs, the changes introduced are not satisfactory. In the opinion of the Polish Association of Construction Employers (Polski Związek Pracodawców Budownictwa - PZPB), a number of projects secured before the Russian attack on Ukraine are currently generating large losses due to ineffective valorisation mechanisms for construction contracts, particularly in the public procurement market. According to PZPB, a review of the valorisation mechanism is required, as failure to act in this regard could lead to a collapse of the construction industry. The contract valorisation rules will also affect the housing construction sector. The housing building sector accounted for 17.5% of the construction and installation output market structure in Poland in 2022.

In 2022, housing construction decelerated as demand declined due to uncertain economic situation and lower mortgage availability. In 2022, the construction of 200,300 flat was started, down by 27.8% vs. 2021, with 238,500 flats completed and delivered (+1.6% YoY), but this is the result of investments started in previous years. The first half of 2023 sees a recovery in demand in the property market. Sales in the primary market have been growing since the beginning of this year.

With a limited number of new projects, an increase in sales resulted in a decreasing availability of offers. The number of flats completed and delivered amounted to 111,900 (+2.2% YoY), but the number of building permits and construction

notifications decreased by 34.7% compared with the first half of 2022. A "Secure Loan 2%" programme, which entered into force in July 2023, could contribute the growth of the housing market. According to the assumptions, about 155,000 people will benefit from the programme by the end of 2027. The increase in demand for housing in the coming quarters is likely to translate into increased property development activity.

During the 10 months of 2022, the broad WIG index and the WIG-Construction index were in a downward trend. The factors contributing to the negative trend on the stock market and declines in the construction sector were, among others, persistently high inflation (soaring material prices) and the associated tightening of monetary policy by the National Bank of Poland by increasing the interest rates, as well as the armed conflict in Ukraine, due to which construction companies experienced an outflow of workers who came from the eastern border of Poland.

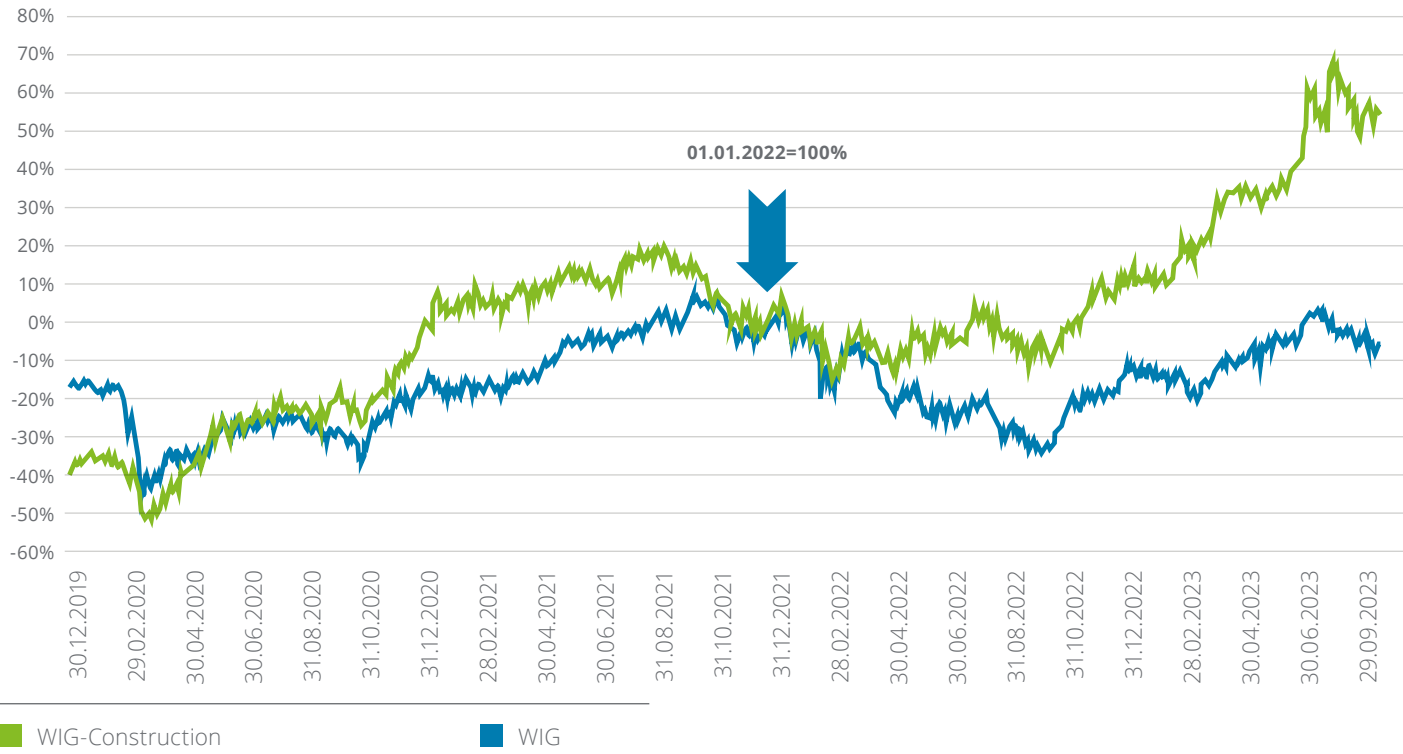
Since the autumn of 2022, a clear change in the trend of the WIG-Construction index has been apparent, which was already 8.5% above its base value at the end of 2022 (beginning of 2022), significantly outperforming the WIG index, which fell 17.1% over the same period.

Despite many challenges that the construction industry will have to deal with in the short term, such as for example high construction costs, the upward trend of WIG-Construction index continued, and WIG index rebounded at the end of 2022. In the first quarter of 2023, both the WIG and WIG-Construction indices remained relatively unchanged. From the second quarter of 2023 onwards, the value of the indices went up by far, with the WIG-Construction recording significantly higher increases. In the second half of this year, companies from the construction sector grew dynamically and reached a maximum point in mid-August (+54.5% growth compared with the beginning of the

year). At the same time, the WIG index, like the construction sector, also showed an upward trend, but much lower (a maximum of +25.3% at the end of July).

Since then, both indices have started to record slight declines, with the WIG-Construction showing a slight rebound (+3.5%) since mid-September 2023.

WIG Construction and WIG indices during 30.12.2019-31.09.2023 with reference point at 01.01.2022



Source: Stock exchange quotations

2.2. Macroeconomic factors: economic growth, public debt

Economic growth

In 2022, Polish GDP recorded growth of 5.1%, with an increase in inventories (2.6% YoY) being an important factor in this trend. Economic growth last year was also influenced by private consumption (1.8% YoY), which reached a high level especially in the first half of the year due to the influx of migrants from Ukraine.

The fourth quarter of 2022 saw a lower GDP growth rate (2.3% YoY), and the following two quarters saw declines of -0.3% YoY and -0.6% YoY respectively. The decline in GDP in the first quarter of 2023 was driven by a 4.1% fall in inventories and a 1.0% fall in household consumption. Polish GDP was mainly underpinned by a 4.3% increase in net exports and a 1.2% increase in investment. In the second quarter of 2023, a decline in GDP was largely linked to the consumer recession, as private spending was 1.5% lower YoY. However, a decline in inventories by 3.8% YoY had the larger negative impact on the growth rate. In the second quarter of 2023, the economy was driven by growth in net exports (3.1% YoY) and investment (1.2% YoY).



Agnieszka Głowacka

Vice-President of the Management Board, ERBUD GROUP

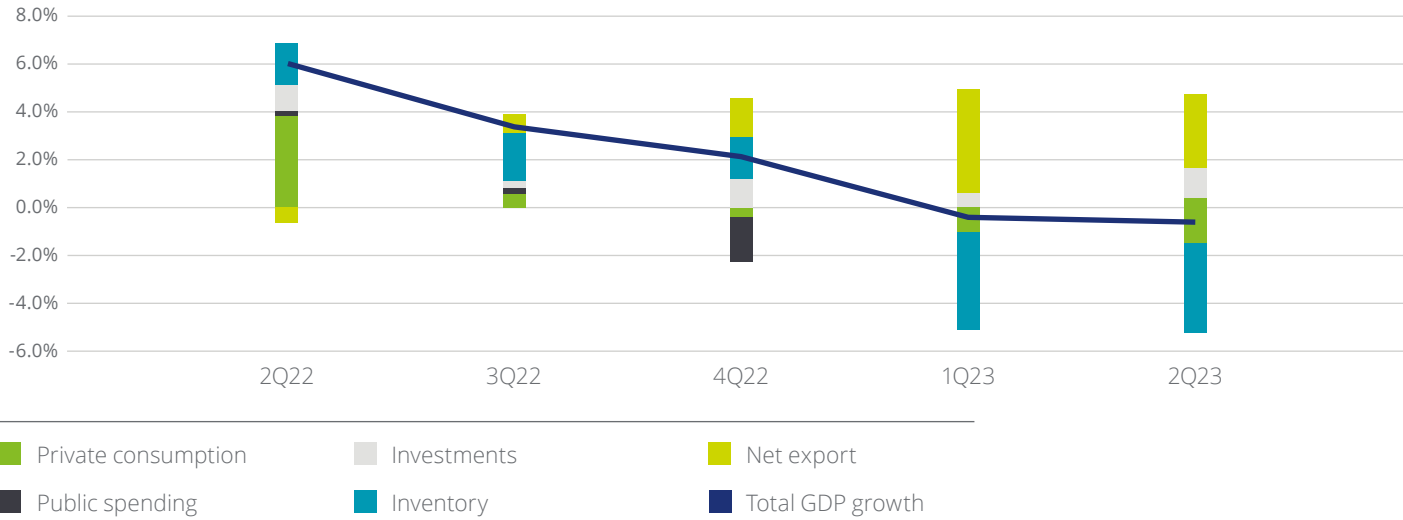
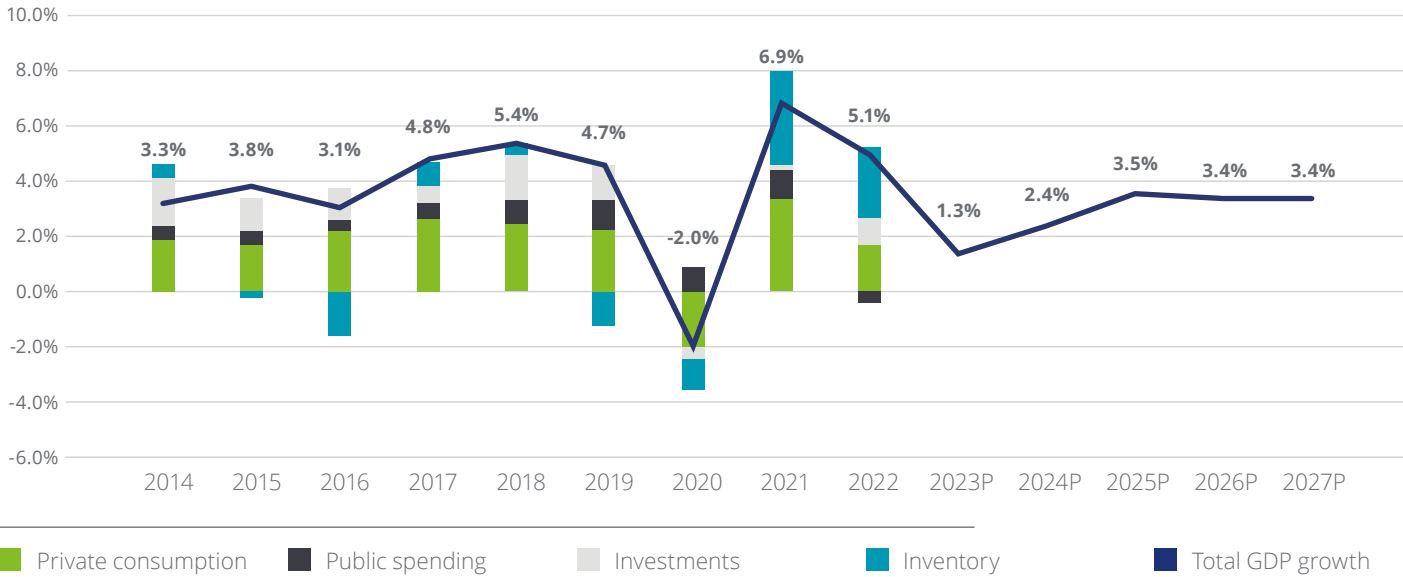
Forecasts by the EIU (Economist Intelligence Unit) indicate that GDP growth will decelerate significantly in 2023 and end at 1.3% YoY. By contrast, the International Monetary Fund forecasts GDP growth in Poland at 1.2%.

Forecasts point to a continuing consumer recession throughout 2023, driven by persistently high levels of inflation, reduced money purchasing power and increased uncertainty. The above factors lead to shrinking disposable income, which translates into a higher propensity of households to save. It should be emphasised that private consumption has been one of the most important drivers of GDP growth in Poland in recent years.

In addition, increased cost pressures, high uncertainty and tighter financing conditions will also prompt companies to shelve investment projects, which will translate into lower economic growth than before. Over the next few years, the EIU forecasts moderate GDP growth, which will oscillate between 2.4% and 3.5% between 2024 and 2027.

A country's GDP growth is one of the factors in the credit rating of a local economy. In 2022, the key rating agencies (Standard&Poors, Fitch, Moody's) kept the ratings assigned to Poland unchanged. This translated into investment attractiveness for foreign investors, however, high inflation and increased cost pressures when compared with other European economies are increasingly affecting Poland's investment attractiveness. Moody's, which rates Poland's creditworthiness the highest of the three major rating agencies, left its A2 credit rating unchanged, according to its September 2023 announcement. It noted, however, that Poland's medium-term fiscal outlook will depend on the outcome of the autumn parliamentary elections.

GDP growth decomposition 2014-2022 and forecast for 2023-2027



Source: Statistics Poland



Despite adverse market conditions on a macro and micro scale; such as high material and employment costs, more difficult access to money for investors, or a moderate investment climate, our organisation effectively identifies construction segments in which we can successfully execute profitable contracts. The structure of ERBUD's order book has improved significantly in the last few quarters in terms of project margins and diversification across segments. We are pleased to see the return of projects from the RES industry, which experienced a downturn. With the next wave of development projects, the number of construction projects related to renewable energy will grow, and we will grow with it. In addition, we are expanding our business in modular construction, particularly in Western Europe, where prefabrication is gaining ground. The coming months and years may present opportunities in areas previously overlooked by public investors, such as the military sector, but also private investors, for example as regards the development of the PRS sector within housing market."

The unemployment rate in Poland at the end of 2022 was 5.2%, down by 0.6 p.p. compared with the previous year. Data from the Statistics Poland (GUS) shows that the labour market situation in Poland has improved despite the events resulting from the Russian invasion of Ukraine. However, it should be noted that the unemployment rate has been on a downward trend since 2013, which was mainly due to Poland's continued stable economic growth. The only exception was in 2020, when higher unemployment levels resulted from the outbreak of the COVID-19 pandemic.

Estimated by the Ministry of Family and Social Policy, the registered unemployment rate at the end of August 2023 was 5.0%, the same as in the previous month. Compared with the data at the end of August 2022, the rate was 0.2 p.p. lower. The unemployment rate is lower during the summer months when seasonal work intensifies; nevertheless, throughout the first half of 2023, the unemployment rate fluctuated between 5.0% and 5.5%.

At the end of 2023, the registered unemployment was forecast at 5.6%, influenced by a decrease in demand for seasonal workers in sectors such as construction, agriculture, or tourism services. The EIU projections indicate a

stable level of registered unemployment (5.4%-5.6%) in the following years. By contrast, the NBP projection assumes an unemployment rate of 3.3% at the end of the fourth quarter of 2023 (+0.4 p.p. YoY), followed by 4.0% in 2024 and 2025.

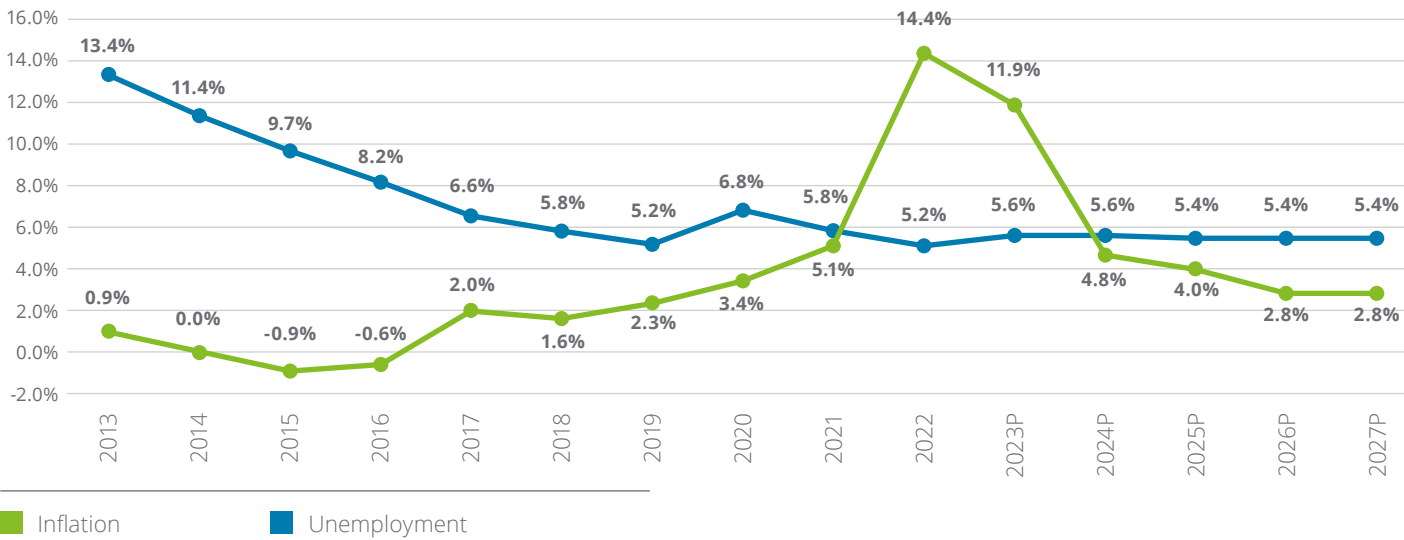
Increasing geopolitical tensions due to Russian military aggression against Ukraine was the compounding factor of inflation in 2022. One of effects of the outbreak of war in Ukraine was a sharp increase in the prices of energy commodities, i.e. oil, gas, and coal, which translated into higher fuel and energy prices for end consumers. Another effect was the surge in the price of wheat as Russia and Ukraine hold a high share in the global supply of this grain, and this led to raising prices of food products. The combination of the above factors resulted in a general increase in the prices of industrial goods.

The average annual inflation rate in 2022 was 14.4%, an increase of 9.3 p.p. on the previous year. This level is well above the inflation target (2.5% ± 1 p.p.) set by monetary policy. Throughout 2023, the high level of inflation was mainly caused by high energy prices, secondary effects of earlier supply shocks in commodity markets and associated high commodity prices, along with relatively rapid recovery of activities

after the COVID-19 pandemic and rising labour costs.

In December 2022, the prices of goods grew faster (17.6%) than the prices of services (13.4%). The highest price dynamics were recorded in the 'use of flat or house and energy carriers' category (+22.6%), driven by significant increases in commodity prices. The second highest increase was recorded in the 'food and non-alcoholic beverages' category (+21.5%). According to preliminary data from the Statistics Poland, inflation in September 2023 stood at 8.2% year-over-year, significantly exceeding the inflation target and the fluctuation corridor set by the National Bank of Poland. According to EIU forecasts, inflation should reach 11.9% by the end of the year and could fall to 2.8% by 2027. The NBP's projections show inflation at 7.8% at the end of the fourth quarter of this year, 4.6% in 2024 and 3.3% in 2025.

Rate of unemployment and inflation in 2013-2022 and forecast for 2023-2026



*Data for 2020 and 2021 estimated based on the National Agricultural Census 2020.
Source: Statistics Poland; EIU

Public sector debt

In 2022, sovereign debt in nominal terms (according to the national definition) increased by PLN 60.9 billion to PLN 1,209.5 billion, accounting for 39.3% of GDP (down by 4.7 p.p. on the previous year). The dominant share in the structure of public debt in 2022 was held by the State Treasury at PLN 1,238.5 billion. The value exceeds the public debt as it takes into account, in accordance with the financial plan of the Solidarity Fund, the liabilities of this fund within the public finance sector, which do not affect the public debt due to the elimination of mutual liabilities of entities which are part of the sector.

The State Treasury's debt increased due to, among others, the financing of the state budget's borrowing needs with a state budget deficit (PLN 12.6 billion), the increase in the balance of funds in budget accounts (PLN 27.8 billion) or the transfer of bonds under laws other than the Public Finance Act (PLN 28.8 billion). At the end of June 2023, the public debt, according to preliminary estimates, stood at PLN 1,241.6 billion, an increase of PLN 32.1 billion (+2.7%) compared with the end of 2022.

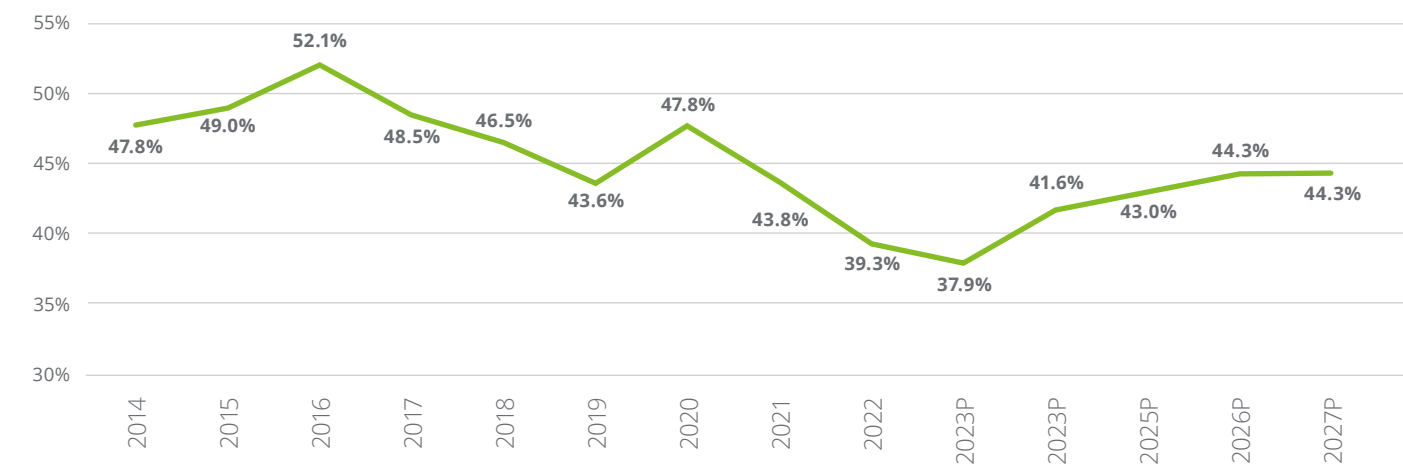
Public debt as a percentage of GDP

The EU methodology uses the category of central and local authorities' debt, according to which Poland's debt at the end of 2022 was PLN 1,512.2 billion, representing 49.1% of GDP, compared with PLN 1,410.5 billion and 53.6% of GDP at the end of 2021. The central and local authorities' debt at the end of the second quarter of 2023 was PLN 1,581.2 billion, an increase of PLN 69.0 billion (+4.6%) compared with the end of 2022.

The difference between sovereign and central and local authorities' debt is due to, among others, the inclusion in the latter of the National Road Fund, the COVID-19 Counteracting Fund and the Armed Forces Support Fund, as well as the Financial Shield of the Polish Development Fund (PFR).

The balance of the Polish debt is managed by the Ministry of Finance, which, as part of its tasks, has developed and follows the guidelines presented in the "Strategy for debt management of the public finance sector in 2024-2027" of September 2023. Pursuant to Article 74 of the Public Finance Act of 27 August 2009, the Minister of Finance exercises control over the public finance sector with regard to compliance with the principle stipulating that the public debt may not exceed 60% of annual GDP.

Public debt as a % of GDP in 2014-2022 and forecast for 2023-2027



Source: Ministry of Finance

2.3. EU funds

EU funds are an important instrument for supporting the development of the construction industry, in particular road and rail infrastructure. The current EU perspective is set for 2021-2027. **In the current EU perspective, Poland will again be the largest beneficiary of EU funding.** According to the budget plans, a total of EUR 76.5 billion is allocated for Poland under the Cohesion Policy.

The largest share of EU funds is allocated to the European Funds for Infrastructure, Climate and Environment Programme (EUR 24.4 billion), which provides support for areas such as Poland's energy security, the development of renewable energy sources, environmental protection, and safe and environmentally friendly transport. Poland will invest a significant part of the financial resources coming from the programme in transport infrastructure (roads and railways), which will have a positive impact on the construction sector. Another

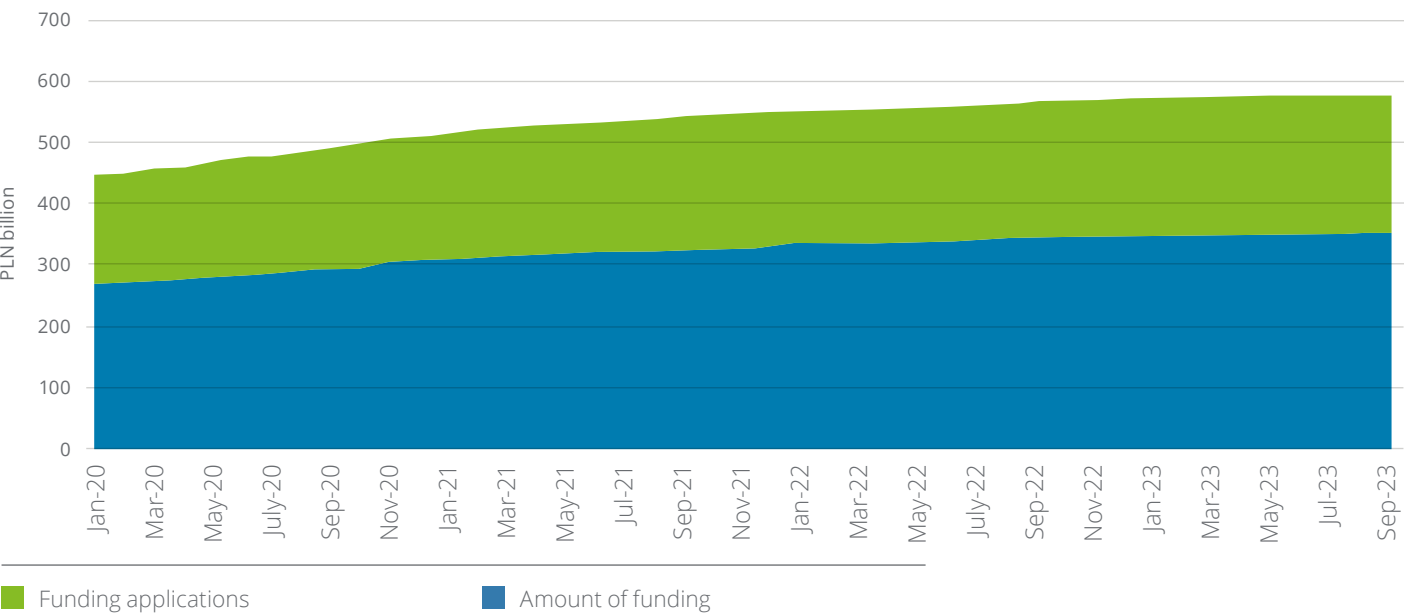
significant pro-development programme funded by the EU is the European Funds for a Modern Economy, dedicated to research and development projects. Approximately EUR 8.0 billion has been allocated for this programme. The third largest programme is the European Funds for Social Development (EUR 4.0 billion), which supports, among others, the field of higher education.

EU funds spending in Poland. Comparison of the status at the end of 2020-2022 and September 2023

	Qty (pcs.)				Value (PLN billion)			
	XII 2020 - Dec-2020	XII 2021 - Dec-2021	XII 2022 - Dec-2022	IX 2023 - Sep-2023	XII 2020 - Dec-2020	XII 2021 - Dec-2021	XII 2022 - Dec-2022	IX 2023 - Sep-2023
Funding applications (PLN billion)	167.903	192.295	198.471	200.285	512.4	554.7	575.6	581.5
Agreements	82.683	97.046	101.972	103.013	309.7	336.3	349.1	353.3
Beneficiaries share	49.2%	50.5%	51.4%	51.4%	60.4%	60.6%	60.6%	60.8%

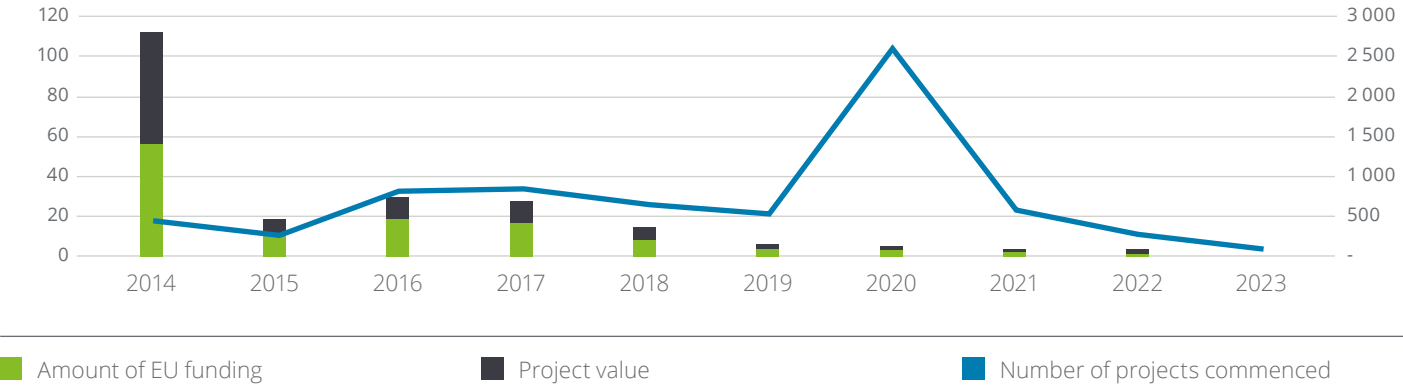
Source: Ministry of Investment and Development

Project funding agreements for the EU part of the funding amount



Source: Ministry of Investment and Development

EU co-funding in the construction, transport and warehouse sector in Poland



Data relates to the business areas of Construction and Transport and Storage and therefore also includes items unrelated to the construction (e.g. purchase of rolling stock).
Source: Ministry of Funds and Regional Policy.

The largest construction projects started in 2022 with EU funding include the following:

- development of innovative technology for the production of MMA using a two-component mineral additive;
- implementation of R&D results for innovative solutions in the production of high-quality concrete with photocatalytic properties;
- development and implementation of R&D work on an innovative system for securing PV installations.

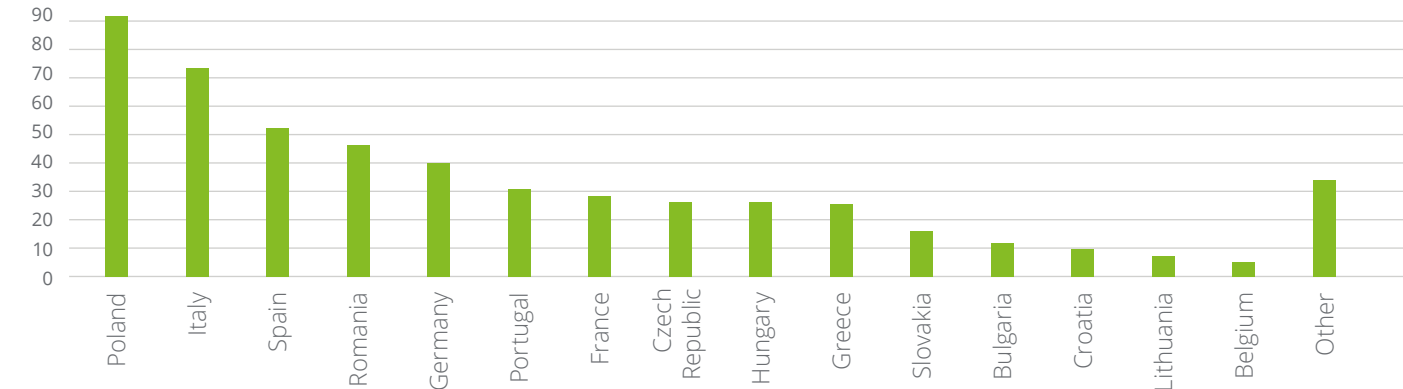
It should be noted that the number of projects implemented with European Funds has gradually decreased due to the ending of the previous EU perspective (2014-

2020). The projects indicated above are implemented with funds from the previous financial perspective. Details of projects under the new EU funds budget have not been made available. An important part of the support will be the Reconstruction Fund, assisting the EU Member States in their strive for pre-pandemic growth, which includes EUR 390 billion in grants and EUR 360 billion in loans, totalling EUR 750 billion.

According to the assumptions, Poland could receive EUR 23.9 billion in grants and EUR 34.2 billion in loans from the Reconstruction and Resilience Fund. The majority of the funds are to be allocated to climate goals, as well as digital transformation. Due to formal issues,

Poland has not yet received funds under this fund. The basis for benefiting from the funds is the National Recovery and Resilience Plan (KPO), consisting of 54 investments and 48 reforms. In June 2022, the KPO was approved by the European Commission and the European Council.

Budget for the allocation of EU funds under the 2021-2027 perspective (current prices) [EUR billion]



Source: Ministry of Investment and Development

2.4. Public-private partnership market

A public-private partnership (PPP) is an undertaking carried out through cooperation between public entities and private companies, in which both parties aim to achieve greater investment efficiency in infrastructure projects or other projects pursuing public objectives. The benefits to a public party are primarily about sharing the risk associated with the implementation and management of an investment and benefiting from the experience of professional entities. Private investors may, under such cooperation, receive a long-term contract allowing them to achieve a stable income flow while having the option of terminating cooperation after the contract term.

A private entity involved in a PPP project receives remuneration mainly from so-called availability fees paid by a public partner from the budget. This allows for distributing the budget expenses related to infrastructure over years. A concession contract is another form of a PPP contract. In this case, a private entity is remunerated with fees paid by infrastructure users. The last form of payments in the PPP formula is availability fee transferring the risk of demand to a public party, which is a long-term business risk. At present, vast majority of PPP contracts (62 %) have the form of concessions, while the remaining 38% are based on the Public Procurement Law.

In the first half of 2023, two new contracts were signed in Poland, while in the same period of 2022, three new contracts were signed. The most recent contracts were for the provision of a service to acquire, manage and convert into useful forms of electricity the biogas in Sobuczyn, and the construction of a car park in front of the Emergency Ward of the district hospital in Bochnia (transport infrastructure sector).

In addition, 18 new proceedings were initiated in 2022, fewer by 6 proceedings compared to 2021. In the first half of 2023, 5 proceedings have been initiated so far.

The most frequently implemented projects are in the field of energy, accounting for 28 PPP contracts. The next three large groups are PPP contracts in the transport infrastructure sector (26), water and sewage management (24), and the sports and tourism sector (24). The dominant sector with the highest value of projects (28% of the value of PPP contracts concluded in Poland) remains the waste management sector (including installations in Poznan and Olsztyn).

During the implementation of the PPP programme until the end of the first half of 2023, a total of 647 PPP proceedings were initiated, of which 177 contracts were concluded, amounting to PLN 9.2 billion. Since the beginning of the programme, an average of 13 new contracts have been concluded per year.

On 26 July 2017, a resolution of the Council of Ministers was passed to adopt the document called “Government Policy for the Development of Public-Private Partnerships”. The PPP Policy 2017 was the first government document of a strategic nature relating to the implementation of public projects under the public-private partnership formula. Its main objective is to ‘increase the scale and efficiency of investments in the PPP formula, with the premise that choosing this formula for the implementation of public tasks and services should lead to maximum economic and social benefits’.

Since the PPP formula became available, 2013 was a record year in terms of value of contracts signed. In terms of effectiveness, from 2017 to 2019, the effectiveness of PPP proceedings measured by the ratio of signed contracts to initiated proceedings was 34%. In 2020 the effectiveness grew to 42%, and then to 50% in 2021, and reached 27% in the first half of 2022. The effectiveness measured over the duration of the PPP policy since 2017 is 39%. The PPP cooperation formula acts as a shock absorber for public institutions in relation to investments financed from the public budget and EU funds. After record years in terms of the number and value of PPP contracts concluded, this market is beginning to shrink in the wake of greater uncertainty about the future geopolitical situation in Europe and the unknown allocation of funds that local governments will be able to use to implement any planned tasks.

Considering the involvement of public entities under the PPP mode, municipalities decide to cooperate most often. Proceedings for choosing a private partner were initiated most often by city municipalities (32%), rural municipalities (18%), and rural-urban municipalities (16%). Similarly, as for the signed contracts that entered the implementation phase: 54 contracts were signed by urban municipalities, 46 contracts by rural municipalities and 25 contracts by urban-rural municipalities, 11 contracts by marshal offices, 10 contracts by budgetary units, 8 contracts each by government administration and municipal companies. The remaining 13 contracts were made by, among others, such entities as starostwa powiatowe, health care units, universities, associations of municipalities, local cultural institutions, and other entities.

List of proceedings of projects in the form of PPP with an expenditure value of more than PLN 300 million as at 28.09.2023.

Project	Location	Proceedings commencement date	Implementation status	Value of investment expenditures or net services (PLN million)
Construction of External Port in the Port of Gdynia	Gdynia	2020-11-05	Prowadzenie negocjacji	4 382,0
New development of Społeczny Square in Wrocław	Wrocław	Brak danych	Wybór doradców	732,0
Construction and maintenance of state archives in the public-private partnership formula	cały kraj	2022-02-02	Prowadzenie negocjacji	674,4
Modernisation, enlargement and development of Polonia Center at ul. Konwiktorska 6 in Warsaw	Warszawa	2022-06-15	Prowadzenie negocjacji	644,4
Revitalisation of the surroundings of the Różycki Bazar quarter: Targowa - Ząbkowska - Brzeska – Kijowska	Warszawa	I kwartał 2024 roku	Wybór doradców	450,0
Ecological living room of the city - reconstruction of the island of Pocijewo	Konin	Brak danych	Ocena efektywności	359,6

Source: PPP project database

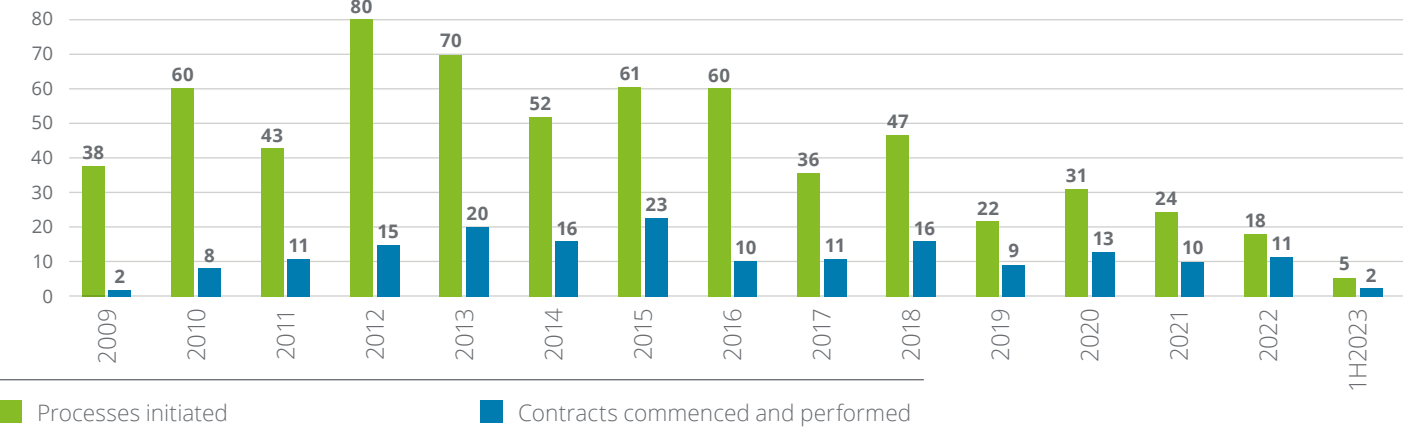
The notion of waning activity in the market is proved, among others, by the figures for this year - between January and June 2023, a total of only two PPP contracts were signed and a total of five proceedings were initiated.

- construction of a car park in front of the Hospital Emergency Ward in Bochnia (PLN 298,000, Małopolskie province)

Contracts concluded in the first half of 2023 includes:

- the provision of a service to acquire, manage and convert into useful forms of electricity the biogas in Sobuczyn (PLN 3.32 million, Śląskie province);

PPP proceedings and implementations in 2009 -1H2023



Source: Ministry of Funds and Regional Policy

2.5. Employment and remuneration in the construction sector

In the first half of 2023, average employment was 420,400 people, a decrease of 1.0% compared with the first half of the previous year (424,600).

The average remuneration level in the construction sector in the first half of 2023 was PLN 6,783.82, an increase of 7.6% compared with PLN 6,308.43 at the end of June 2022. The increase was caused by, among others, the double increase in the

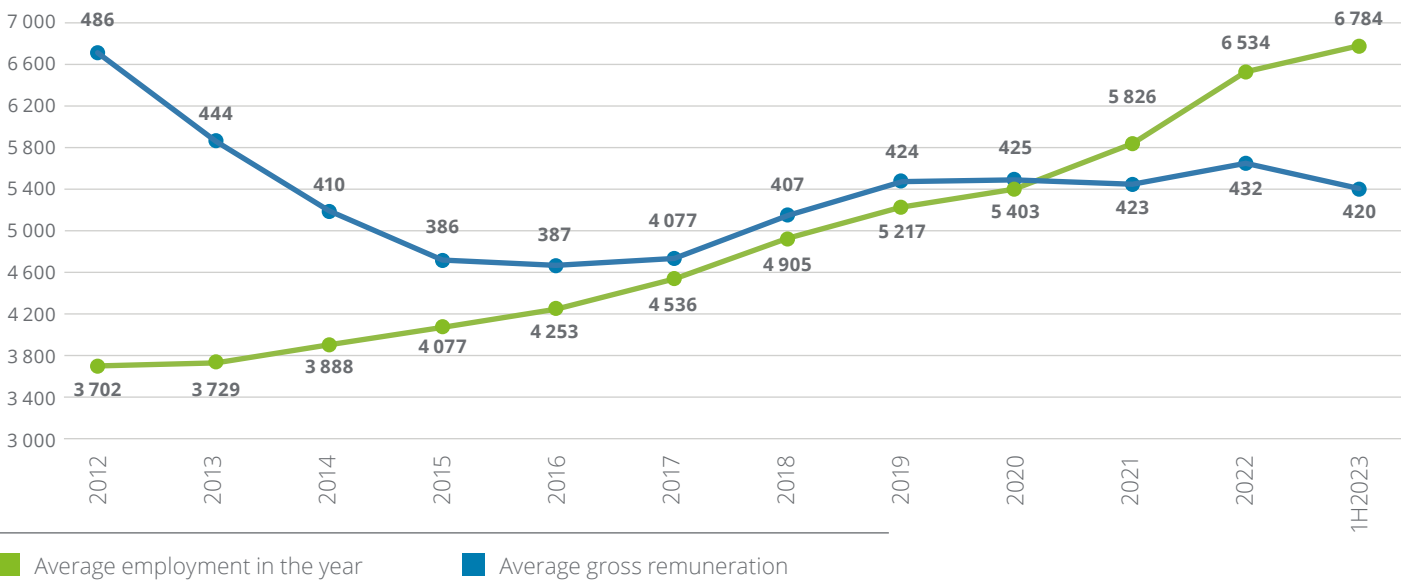
minimum wage in 2023, as well as high wage pressure.

The structure of pay in the various construction sectors in the first half of 2023 remained unchanged. The highest average remuneration was received by employees engaged in construction of buildings and civil engineering, amounting to PLN 7,695.92, recording an increase of 10.1% compared with the same period

in the previous year. Workers engaged in specialised construction could receive an average remuneration of PLN 6,723.24 (up by 13.5% year-over-year), while those employed in building construction were paid PLN 6,021.10, down by 1.0%.

The barriers for entrepreneurs operating in the construction sector include the cost of employment, as indicated by 73% of respondents in September 2023. The cost

Average employment and gross remuneration in the construction industry from 2012 to 1H2023



Source: stat.gov.pl

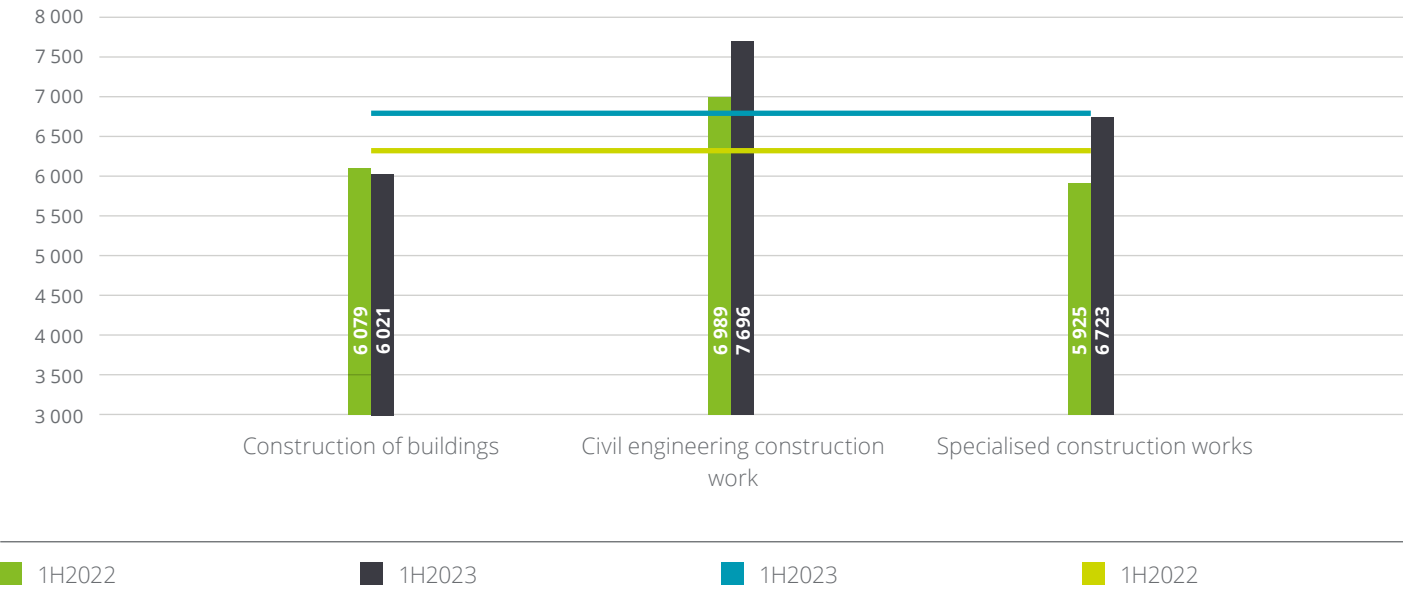
of materials is also a significant barrier according to 62% of respondents, but compared with the same period a year earlier, the percentage of entrepreneurs in this respect decreased by 14 p.p. High burdens imposed by the state budget (57.3%) and uncertainty of the general economic situation (54.4%) were another important barriers given by entrepreneurs. Furthermore, a shortage of professionals was identified as a barrier by 34% of those

operating in construction, 7 p.p. lower than in September 2022. Additionally, 24% of respondents identified insufficient demand in the industry as a barrier too, an increase of 4 p.p.

In recent years, employment costs have been the biggest barrier to business operation for entrepreneurs in the construction sector, contributing, among others, to the hiring of workers from

outside Poland. However, the inflow of foreigners has plummeted recently, and this may lead to stronger wage pressure. The cost of materials is another significant barrier to the operations of entrepreneurs in Poland. The Russian military aggression against Ukraine has brought about soaring prices of energy commodities. The sanctions imposed by the EU in the form of a ban on trade with Russia led to an increase in the prices of construction

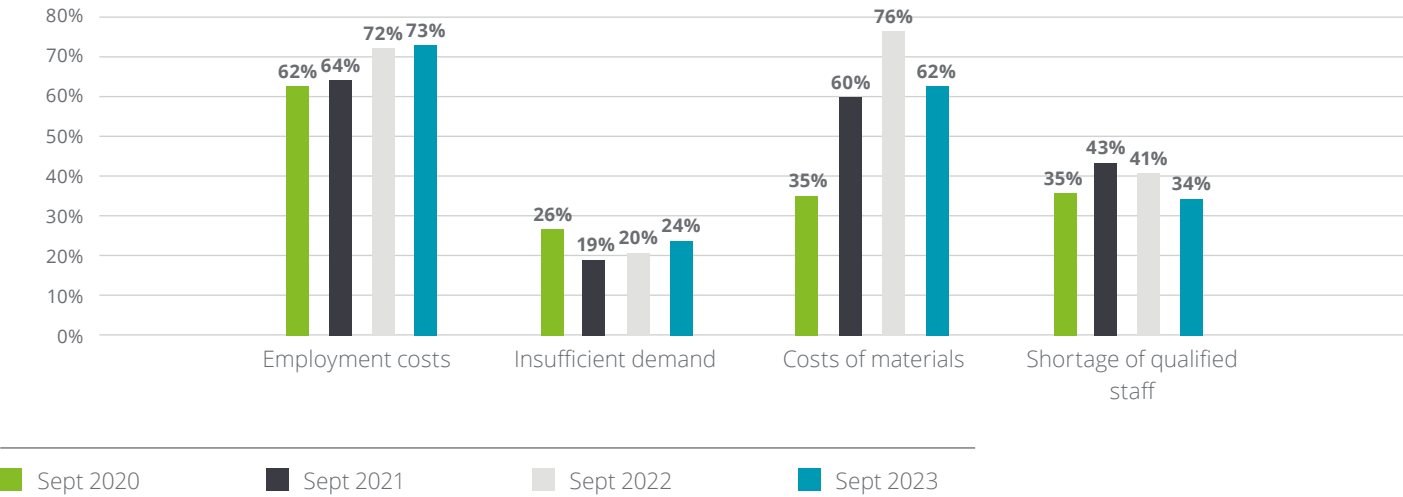
Average gross remuneration in 1H2023 in individual construction segments [PLN]



Source: Statistics Poland

materials. Both the cost of wages and the cost of materials have squeezed entrepreneurs' margins, prompting them to raise prices, compounded by the high level of inflation in Poland. This has had a negative impact on demand, as confirmed by the opinion of construction entrepreneurs.

Barriers faced by construction companies



Source: Statistics Poland

2.6. Bankruptcies in the construction industry

The year 2022 was another relatively difficult year for Polish companies. During this period, a total of 2,752 bankruptcy and restructuring proceedings were pending, an increase of 30% on the previous year (2,125 proceedings in 2021).

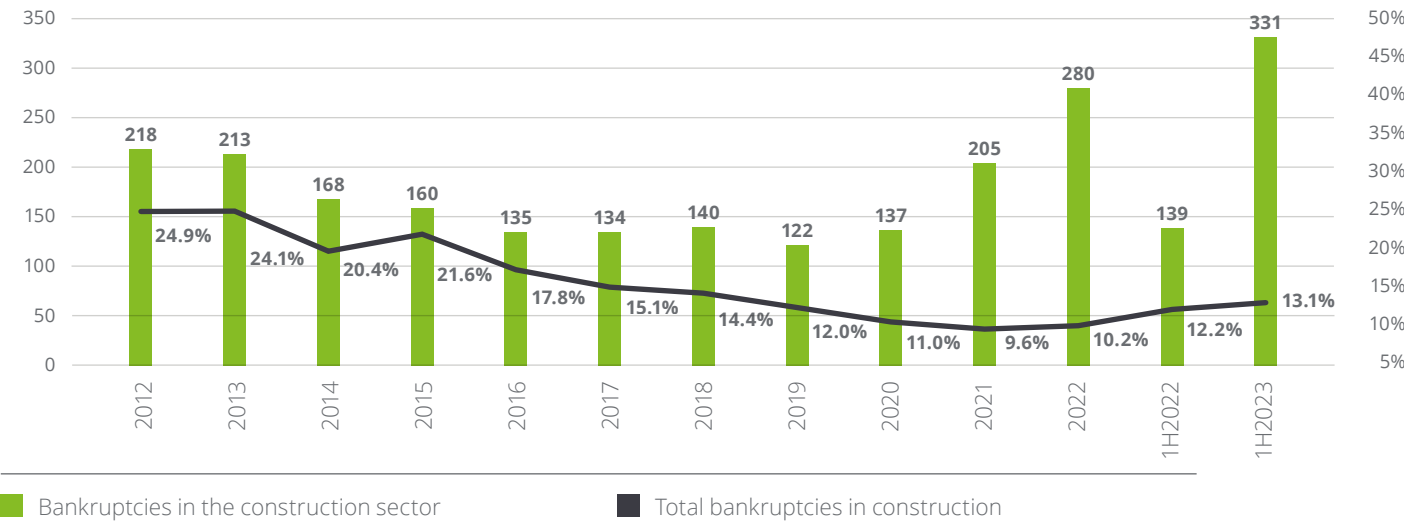
In 2022, companies in the services sector accounted for the largest proportion, with 827 proceedings (+40% YoY). The second largest was the trade sector with 567 proceedings (+42% YoY). The highest increase was recorded in the transport sector (+105% YoY). As far as construction companies were concerned, 280 bankruptcy and restructuring proceedings were registered, a 37% increase vs 2021. In 2023, the condition of the construction industry clearly deteriorated. In the first half of this year, as many as 331 proceedings were pending, an increase of 159% on the same period last year. It should be noted that the number of proceedings in the first half of 2023 exceeded the total number of proceedings in the whole of 2022 by 18%, which indicates that the condition of the

Polish construction market indeed suffers a setback.

A record increase in the number of bankruptcies of construction companies also shows that small entities in particular, which are most vulnerable to the impact of adverse market conditions, are experiencing the most difficult situation. An increasing number of bankruptcy proceedings can be directly correlated with the barriers to doing business, i.e. rising employment costs, rising material prices, weakening demand, rising costs of debt servicing and an uncertain economic situation. Given the above and the general economic climate in Poland, the condition of the industry may weaken and, consequently, lead to a further increase in the number of potential bankruptcies in the sector. The issue of contract valorisation has also become a significant problem in the industry. High inflation and ineffective valorisation mechanisms translate into low or negative profitability of ongoing projects, which may result in the collapse of the construction market.

One of the reasons for the deteriorating situation of the construction sector is the high cost of doing business, paired with the scarcity of new contracts translating into declining revenues. These conditions result in a decline in profitability of companies, in extreme cases leading to loss of profitability and bankruptcy. Payment backlogs are also high among the causes of construction company bankruptcies. The construction sector is considered one of the riskiest in terms of bankruptcy due to high payment delays and the number of overdue receivables.

Number of bankruptcies of construction contractors from 2012 to H1 2023 [number of companies]



Source: Coface

2.7. Threats to the construction sector

After many years of steady growth in terms of both number and value of contracts, the business situation in the construction sector has deteriorated. In 2022, firms in the sector faced a number of challenges and adversities, which hamstrung their business operation. They included a persistent high-inflation environment and above-average contract costs, dampen investment sentiment that contributed to a decline in demand for the services of construction companies, and high global economic uncertainty that did not invite strategic business decisions. The year 2023 continues to be challenging for the construction sector due to persistent risks negatively affecting the profitability of ongoing contracts as well as the supply of potential investments.

Limited supply of investment projects.

The current decline in the number of investment projects in Poland makes price competition among bidders in tenders fiercer, which is having a negative impact on the profitability of performed contracts and thus on the quality of contractors' backlog. A decline in orders is particularly evident in the segment of infrastructure projects, where the implementation of the largest investments is determined by the availability of EU funding.

Availability of EU funds.

Poland's largest infrastructure programmes are financed to a large extent with public funds, including EU funds. The potential withholding or absence of disbursements under individual programmes may affect the original schedule of planned investments or decide about their future implementation altogether. Currently, due to the Polish government's failure to meet milestones agreed with the European Commission, disbursements from the National Reconstruction Programme (KPO) have been withheld. As a remedy for the

lack of EU funds, the Polish government has decided that the Polish Development

Fund (PFR) may pre-finance selected investments under the KPO. However, the scale of potential funds that the PFR will be able to provide is likely to be insufficient to completely cover the value of EU funds allocated to Poland.

Limited availability of construction workers due to the armed conflict in Ukraine.

Entities in the construction sector continue to experience a demand for skilled construction workers, making the sector highly dependent on foreign workers. As indicated by the Polish Association of Construction Employers, in 2022 the number of foreign workers employed on construction sites will decrease from 480,800 in 2021 to 274,500. A significant drop is visible in the case of workers from Ukraine, whose outflow is caused by the ongoing armed conflict in their country. In 2022, the number of workers from Ukraine fell by 246,100 to 126,900. The labour shortage among construction companies is expected to be particularly acute when the private investment market recovers and large infrastructure investments begin.

High prices of building materials.

In 2022, a strong upward trend was observed in the construction materials price market. This resulted from supply chain disruptions from across the eastern border due to Russia's ongoing aggression against Ukraine, as well as rising prices for petroleum products and energy due to restrictions on raw material imports by EU Member States from Russia. According to data from the PSB Group, which tracks the prices of leading materials for the construction industry and home and garden, the prices of building materials increased by an average of 25% in 2022

compared with 2021. The year 2023 is still characterised by relatively high material prices, however, the dynamics of price increases compared with the previous year have declined. According to the PSB

Group's readings, the prices increased by an average of 7% in the eight months of 2023 compared with the same period in 2022. One of the factors contributing to the decline in material price growth is the stagnation in the housing property segment, which accounts for around a third of demand for building materials in Poland. A potential recovery in the housing construction market due to the "Safe Loan 2%" programme and the unlocking of KPO funds could translate into an increase in material prices following the increased demand.

Insufficient valorisation of contracts.

The valorisation mechanism that was introduced in 2019 allowed for a maximum revision of +/-5% in settlements. In the wake of soaring contract costs, the level of potential revision was updated to +/-10%. The aim of the mechanism was to improve the liquidity and financial stability of construction companies and to improve the profitability of contracts by reducing the risks associated with the growth of prices of goods and services. In November 2022, law was passed amending the provisions of the Public Procurement Law with regard to, among others, valorisation of contracts. As part of the amendment, a legal basis was established for amending the provisions of contracts concerning the valorisation of contractors' remuneration, including the introduction of new or modification of existing valorisation clauses. The amendments covered contracts in progress on the date when the amendment came into force, as well as contracts concluded on the basis of the repealed Public Procurement Law.

Public tender bid assessment criteria.

As part of the process of selecting the most attractive tender for a contracting authority, a public procurement procedure is used. The procedure defines the assessment criteria of a bid in question, which takes into account parameters relating to the price, quality of work, functionality, technical parameters, environmental and social aspects, innovation, deadlines, and operating costs.

At present, however, it is common practice in public tenders to select contractors according to three criteria, which are: price, delivery time and performance bond period, with the price criterion being the decisive one when selecting a contractor. As a result, many entities with lower execution potential undercut prices in tenders, increasing the risk of not completing contracts within planned budgets, particularly in an environment of rising prices of construction materials. In addition, there is a risk of selecting an entity with insufficient competence and experience to perform a contract, which may result in delays in the execution of contracts or their faulty performance.

Financing of infrastructure projects.

When EU funds are finally released and because they have to be spent within a specific timeframe, there is a risk that numerous investment tasks in various segments of the construction sector will accumulate in a relatively short period of time. In addition, the intensification of investment activities at the same time in similar areas may contribute to draining the market for subcontractors and materials. High cost of investment financing. High interest rates translate into higher mortgage rates and a reduction in borrowers’ ability to service their financial obligations, which is reflected in the health of the housing construction segment. In addition, persistently high interest rates, deter investors from increasing their capital

exposure to commercial real estate due to alternative investment opportunities in assets offering competitive returns. However, with the recent change in interest rate policy by the Monetary Policy Council (RPP) of the National Bank of Poland and the reduction of the main reference rate to 5.75% in October 2023, a revival in demand for mortgages and thus for the purchase of flats is likely. As participants in the residential construction segment point out, further situation in the real estate market will depend largely on the extent to which the RPP’s decision to cut interest rates will be of a long-term nature.

Meeting the criteria for sustainable construction.

The growing importance of environmentally and human-friendly construction, as well as new European regulations and initiatives introduced in this area, are forcing the construction sector to implement new and often costly solutions under the contracts they perform. The implementation by construction companies of investments in line with sustainability standards, often involves the use of modern technologies and renewable or low-environmental-impact materials, which can lead to higher contract costs due to the limited availability of these materials and thus their higher prices. At the same time, as the popularity of sustainable construction increases, competition in the sector may intensify, eliminating from the market those players who do not adapt to current trends and standards.

2.8. Development prospects of specific construction segments in Poland

2.8.1. Road construction

The General Directorate for National Roads and Motorways (GDDKiA) is the body appointed within the Ministry of Infrastructure to manage national roads, motorways, and expressways in Poland. It is also responsible for managing investments in roads and motorways in Poland. GDDKiA, by carrying out its investments, is executing the planning assumptions set out under the state budget. In order to implement road investments in Poland, the Ministry of Infrastructure has developed a programme regulating the directions of development of the national road network.

On 13 December 2022, the Council of Ministers adopted a new road programme, i.e. the Governmental Programme for the Construction of National Roads until 2030 (with the perspective until 2033) – “RPBDK2030”, which presents a list of investments in national roads defining the objectives of transport policy for the construction of the TEN-T road network in Poland and complementary road links. The aim of the programme is to create a coherent network of national roads ensuring the efficient operation of road passenger and freight transport and improving road capacity.

According to the programme adopted in December 2022, the amount allocated for the implementation of investments included in the RPBDK2030 is PLN 294.4 billion. The financial limit includes new tasks worth about PLN 187 billion, tasks carried over from the previous National Roads Construction Programme 2014-2023 (with the perspective until 2025) worth PLN 104.5 billion and a reserve of PLN 3 billion. The budget assumes expenditure of PLN 209.2 billion until 2030 and PLN 85.2 billion after 2030. In September 2023, the Council of Ministers amended the resolution on the establishment of the “RPBDK2030” programme, increasing its financial limit by PLN 5.1 billion to approximately PLN 299.5

billion. The increase in the limit is related to the addition of a new investment to the programme, i.e. the construction of the S8 expressway, on the Knyszyn (Białystok) - Raczki (Suwałki) section with an estimated length of 90 km. The investments covered by the RPBDK2030 are primarily financed by the National Road Fund. The Fund’s primary sources of funding include revenues from the fuel surcharge, electronic toll (the so-called eToll) and EU funds determined under the previous EU perspective for 2014- 2020 and the new perspective for 2021-2027.

In 2021, the Programme for the Construction of 100 Ring Roads for 2020-2030 was adopted, under which the Ministry of Infrastructure planned the implementation of 100 tasks with a total length of more than 800 km. One of the main objectives of the programme is to move traffic out of congested cities. The cost of implementing the programme has been estimated at more than PLN 28 billion. The National Road Fund will be again funding the planned investments. According to data presented by the General Directorate for National Roads and Motorways (GDDKiA), as at September 2023, 16 tasks with a length of 127.2 km are currently under implementation as part of the programme, while 78 further investments with an estimated length of 703.3 km are at a preparatory stage.

The Ministry of Infrastructure has also developed the Programme for Strengthening the National Road Network until 2030, adopted by the Council of Ministers in October 2022, which is the first medium-term document on comprehensive maintenance of the national road network. The amount allocated for the implementation of tasks covered by the programme is PLN 58.3 billion. As of September 2023, GDDKiA managed a highway network with a total length of 5,042.5 km (an increase of 3.2% compared with the end of 2022), including 1,810.8 km of motorways and 3,231.7 km of expressways.

GDDKiA ended the year 2022 with 103 tasks in progress, with a total length of more than 1,325.9 km, thanks to which more than 322 km of new roads were delivered in the same year.

The largest investments completed in 2022 included:

- 24.2 km of the A1 route: Piotrków Trybunalski South - Kamieńsk;
- 24.2 km of the S6 route: Suwałki - Budzisko;
- 23.3 km of the S5 route: Nowe Marzy - Świecie South;
- 23.3 km of the S61 route: Szczuczyn - Elk South;
- 22.4 km of the S5 route: Świecie South

- Bydgoszcz North;
- 21.9 km of the A18 route: Żary Zachód - Iłowa;
- 20.2 km of the S6 route: Szemud - Gdynia Wielki Kack.

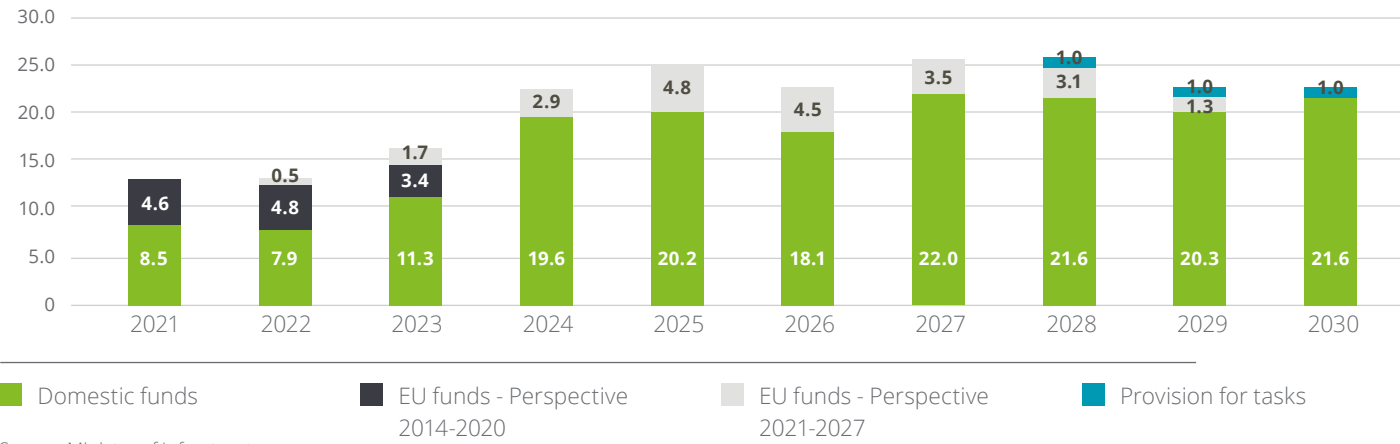
In 2022, GDDKiA announced tenders for the implementation of 20 sections with a length of 226.8 km and signed 24 contracts for tasks with a total length of 333.4 km and a value of PLN 12.8 billion.

Financial needs

In order to determine the size of the financial needs necessary to carry out repairs to the road network, technical data on the condition of the road surface contained in the report prepared annually by the GDDKiA is used.

As at the date of our report, the most up-to-date information on estimated investment expenditures and the technical condition of the national roads was data for 2021. The update of the GDDKiA report for 2022 is expected in the coming weeks. According to the report on the technical condition of the surface of the national road network at the end of 2021, the technical condition of the surface of roads managed by GDDKiA was defined as poor for 3,045.4 km of roads in Poland, which means that 13.5% of the total roads was classified in this category (a decrease of 0.4

Funding for national roads in 2021-2030 with an outlook to 2033 (PLN billion).

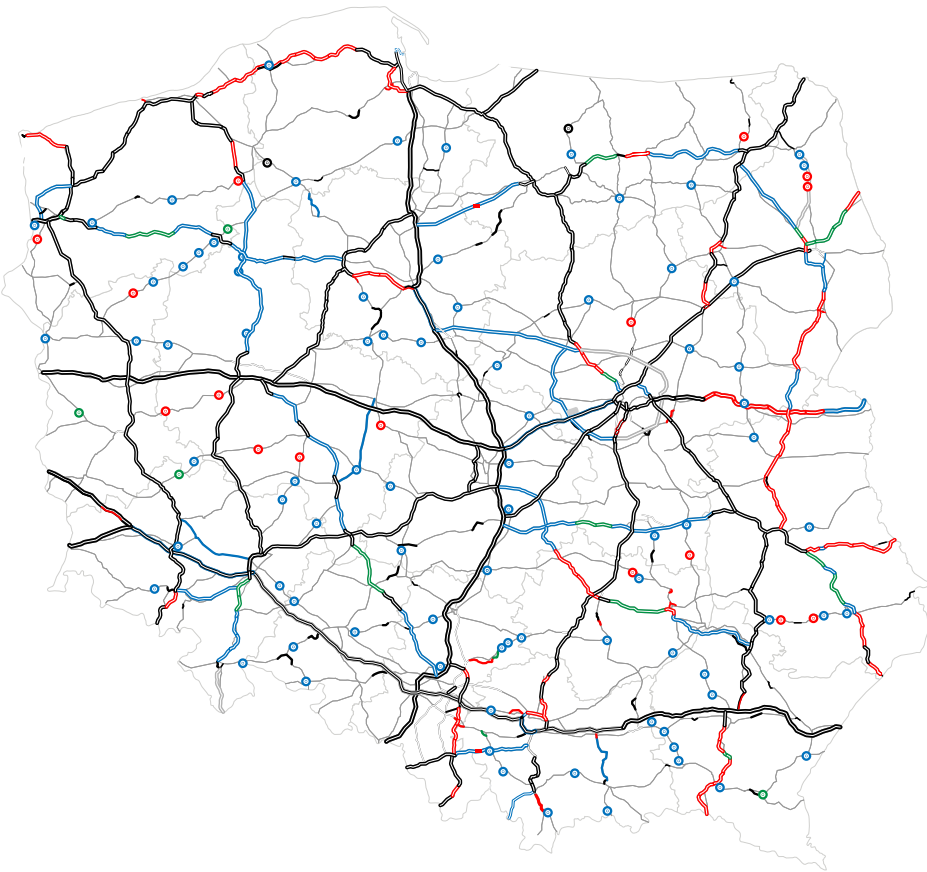


Source: Ministry of Infrastructure

p.p. compared with the previous year). The estimated financial resources for immediate needs, allowing for the performance of all necessary treatments, i.e. the elimination of road sections in poor condition at the end of 2021, were estimated at PLN 7.4 billion, i.e. PLN 2.6 billion more than a year ago. This amount includes primarily upgrading treatments of PLN 7.0 billion and surface and levelling treatments of PLN 0.4 billion. The estimated amount was significantly influenced by an increase in the average price of upgrading treatment, which stood at PLN 3,700 (up by PLN 1,400 YoY). Compared with the needs recorded at the end of 2020, the length of sections requiring levelling and surface upgrading treatments decreased, while the needs for surface treatments increased.

Costs were calculated based on the length of sections requiring immediate treatments and the average unit cost. The unit cost was assumed based on the average costs of the groups of treatments performed in 2021 according to the information provided by the individual branches of GDDKiA. Preliminary estimates by GDDKiA show that in order to perform treatments on road sections classified as poor and unsatisfactory, it would be necessary to allocate the funds in the amount of PLN 17.7 billion. The largest portion consists of treatments to upgrade 4,378 km of road sections at an estimated cost of PLN 16.2 billion. The length of sections requiring surface upgrades is 7 km shorter and the length of sections requiring levelling treatments is 23 km shorter when

Status of construction of national roads as of 29.09.2023



- Existing

Under implementation
- In the tendering procedure

In preparation

Source: GDDKiA

compared to the figures defined at the end of 2020. On the other hand, the length of sections requiring surface treatments has

lengthened by 22 km compared with the previous year.

Surface condition

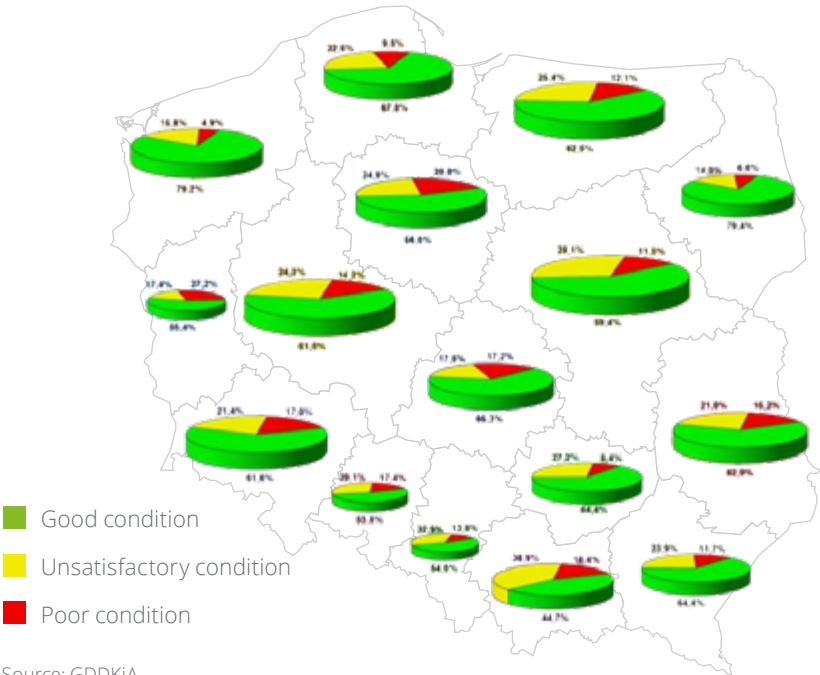
The technical condition of roads has been one of the most significant problems of road infrastructure in Poland. This issue occurs both at the national level (GDDKiA) and at the local level (municipalities, districts). At the national level, the technical condition of national road surface is checked by assessing each of the nine parameters, i.e. crack condition, surface deflection index, deflection curvature index, residual surface life, rut depth, base evenness, friction coefficient, surface condition, and macro-texture. Each of these parameters is qualified by class, according to a four-level scale. At the end of 2021, after aggregating the technical condition of all parameters, 13,727 km of roads (60.8%) were rated as desirable or good, an increase of 0.6 p.p. compared with the previous year. There are 5,361.9 km of surface in unsatisfactory condition (23.8%), 0.2 p.p. less than a year ago, and 3,045.4 km of roads (13.5%) are in critical condition - 0.2 p.p. more than at the end of 2020. The sections under repair accounted for 1.9% of the total roads (428.9 km), so their technical condition was not assigned to individual categories. The condition of the road surface in Poland, taking into account the last two years, has therefore not changed much.

The condition of national road surfaces in individual regions is not the same. The greatest immediate needs for repairs of road surfaces have invariably been recorded for several years in the Lubuskie and Kujawsko-Pomorskie provinces, and then in the Opolskie, Łódzkie and Dolnośląskie provinces. By contrast, the roads in Podlaskie and Zachodniopomorskie provinces, as in previous years, have the best condition in Poland. One of the reasons for various quality of roads is the large differences in the load on the national road network in individual provinces.

National road condition in specific provinces at the end of 2021-2020

GDDKiA Branch	Good [%]		Unsatisfactory [%]		Poor [%]	
	2021	2020	2021	2020	2021	2020
Podlaskie	79.4	78.5	14	14	6.6	7.5
Kujawsko-Pomorskie	56	56.1	24	24.1	20	19.7
Pomorskie	67.8	67	22.6	23.6	9.5	9.4
Śląskie	54	58.1	32.9	30	13	11.9
Świętokrzyskie	64.4	67.8	27.2	24.7	8.4	7.5
Małopolskie	44.7	42.5	38.9	40.3	16.4	17.1
Lubelskie	62.9	58.3	21.8	23.9	15.2	17.8
Łódzkie	65.3	68	17.5	16	17.2	16.1
Warmińsko-Mazurskie	62.5	62.4	25.4	26	12.1	11.6
Opolskie	53.5	54.2	29.1	29.6	17.4	16.2
Wielkopolskie	61.5	59.8	24.3	25	14.2	15.2
Podkarpackie	64.4	61.1	23.9	27	11.7	11.9
Zachodniopomorskie	79.2	74.9	15.8	19.1	4.9	5.9
Mazowieckie	59.4	57.4	29.1	28.8	11.5	13.7
Dolnośląskie	61.6	61.1	21.4	21.8	17	17.2
Lubuskie	55.4	53.7	17.4	18.4	27.2	27.9
Total	62.0	61.3	24.1	24.5	13.9	14.2

Status of construction of national roads as of 29 September 2023



- Good condition

Unsatisfactory condition

Poor condition

Source: GDDKiA

2.8.2. Railway Construction

Within the transport industry, a key role, in addition to road construction, is played by the railway construction sector, which includes the modernisation and construction of railway and tramway infrastructure. **According to data from the Office of Rail Transport, at the end of 2022, the length of railway lines in Poland was 19,923 km, which means that the lines extended by 66 km relative to 2021.**

The main rail infrastructure manager in Poland, in accordance with the provisions of the Railway Transport Act, is PKP PLK S.A., which, at the end of 2022, managed a network of 18,634 km of railway lines, representing 96.1% of the total railway lines in Poland. The remaining 759 km of track, i.e. 3.1% of the total lines, are managed by 13 companies.

In addition to managing the state railway line network, PKP PLK is also responsible for the management and synchronisation of passenger and cargo train traffic. The company carries out investment activities financed by national and EU funds, based on a multi-year railway investment programme, the key concept of which is based on strengthening the function and attractiveness of rail transport.

National Railway Programme

Modernisation and investment in railway construction infrastructure in Poland is carried out through the implementation of the tasks of the National Railway Programme (Krajowy Program Kolejowy - KPK), which sets the conditions for carrying out investments on railway lines using the funds managed by the Minister of Transport. The first version of the KPK, which replaced the Multi-Annual Railway Investment Programme, was adopted by the Council of Ministers on 15 September 2015.

The current KPK until 2030 (with the perspective until 2032), adopted by resolution of 16 August 2023, has a similar timeline with the applicable period of the European Union Financial Perspective for 2021- 2027. The financing of the KPK also includes other available forms of financial support by the EU as well as state budget funds, the Railway Fund and PKP PLK’s own funds. The financing of KPK with funds from the state budget is granted within the framework of the Railway Fund within the limit for a given year specified in the Financial Plan of the Railway Fund.

The main objective of the KPK is to strengthen the role of rail transport in the integrated transport system of the country by creating a coherent and modern network of railway lines. The specific objectives, which are complementary to the main objective, include:

- strengthening the efficiency of rail transport;
- increasing the operational safety of rail transport;
- improving quality in passenger and freight transport.

The implementation of the programme’s objectives will allow PKP PLK to upgrade the railway network. Total expenditure for the KPK between 2014 and 2030 will amount to PLN 170.2 billion. Under the new EU financial perspective for 2021-2027, the allocated funds for the implementation of railway projects are PLN 80 billion in total. The KPK budget also assumes the allocation of PLN 11.1 billion from the National Reconstruction Plan (KPO). The remaining funding of PLN 79 billion relates to previous EU financial perspectives, which will end in 2025.

The execution of the KPK budget for 2022 was 75.4%, i.e. expenditures amounted to PLN 9.3 billion against the planned PLN 12.4 billion. In relation to the original

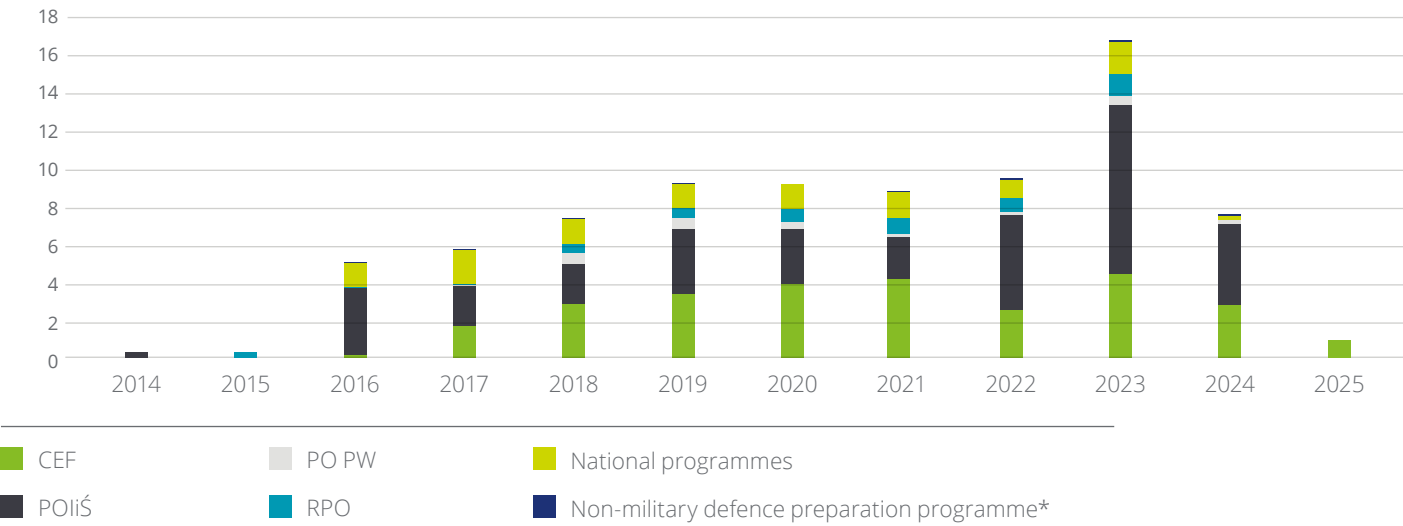
plan, the implementation reached 311.3% (according to the 2015 KPK, PLN 3.0 billion of expenditure was planned for 2022, while the total amount of expenditure for 2014-2023 was PLN 67.5 billion). Execution in 2022 was the highest since the start of the programme.

Overall, from the start of the KPK to 31 December 2022, expenditure amounted to PLN 54.0 billion, or 70.3% of the value of the programme. Taking into account the financial framework of the KPK until 2030, expenditure represented 31.7% of the value of the current programme.

The expenditure implementation in 2022 was significantly higher than in 2021, at the same time it was lower than planned in terms of both EU and national funding. The lower than planned implementation of capital expenditure was caused by:

- organisational and financial problems of the contractors related to, among others, the increased price of construction materials and the outbreak of war in Ukraine;
- lower than planned payment of refunds for the FS projects group (POIiŚ) and PO PW due to the fact that invoices issued in November and December 2022 have already been paid (pre-financed) in 2023;
- lower implementation under the Regional Operational Plan mainly due to transfers of payments, resulting in lower expenditure under the European Regional Development Fund and Railway Fund.

Expenditure on railway investments of PKP PLK in the years 2014-2022 and the expenditure plan under the KPK in the years 2023-2025 in PLN billion



Source: 2022 KPK Implementation Plan Report.



Tomasz Żuchowski
General Director of the General Directorate for National Roads and Motorways

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Since the beginning of the year, we have announced new tenders for the construction of almost 500 km of new roads, which is similar in scale to the period of preparations for EURO 2012. Currently, we have more than 40 investment tasks in the tendering process. It is worth emphasising that in the current perspective most of the road investments are co-financed by EU funds, while under the future perspective, due to the EU priorities, this level of co-financing will be slightly lower. Despite many objective difficulties, I am glad that we have already signed the first contracts for road projects co-financed under the CEF 2021-2027. At the same time, it should be pointed out that the road construction market is much less dependent on the National Reconstruction Programme than other branches of construction, which does not mean that EU funds are redundant. As a result, in recent months we have seen much greater interest in tenders through receiving several bids for individual tasks from both Polish and foreign entities. To ensure appropriate quality and continuity in the execution of tasks, we often enter into dialogue with bidders in order to better understand their approach to budgeting and the execution of an entrusted task. We assume that the situation of increased interest in the area of road construction will last at least until the unblocking of funds from the National Reconstruction Programme and an increase in the number of projects in other segments as well as local government investments.”

In 2023, the implementation of the planned railway investments should reach by the end of the year the level of 41.4% of the implementation of the current programme applicable until 2030 (PLN 70.5 billion in total since the beginning of the programme). The

significant threats to the implementation of the KPK include the risk of exceeding the estimated values of orders in tender proceedings, as well as the need to valorise contracts already concluded. This is due to a surge in prices of materials and costs of carrying out works. In addition, due to the entry into force of the amendment to the Public Procurement Law regarding the valorisation of the contractor’s remuneration, a modification of contractual provisions was introduced, among others, consisting in increasing the limit of contractual valorisation from 5% to 10% of the contract value.

It is worth mentioning that 2023 is the last year of eligibility of expenditures under investments implemented in the 2014-2020 perspective. As a result, applications have been submitted to change the phases of projects that will not be implemented by the end of 2023. The Polish railway construction market is largely determined by the investment activity of a single contracting authority - PKP PLK. PKP PLK has modernised 669 km of main and complementary tracks in 2022. A total of 6,439.1 km of track has been modernised since the start of the programme, representing 73% of the entire KPP. The KPK also includes work on station tracks, bringing the total length of all track work to 7,386 km. In 2022, 19 projects have been completed within the material scope of the KPK. Since the beginning of the programme by the end of 2022, 168 projects with a total expenditure of PLN 16.4 billion have been completed within its material scope.

In 2022, contracts were signed for projects included in the KPK for a net value of PLN 2.1 billion. The largest of these include:

- defence lines implemented in accordance with the Non-Military

- Defence Preparation Programme (PLN 379.1 million);
- modernisation of railway line no. 4 – the Central Railway Line (PLN 269.2 million);
- Works on the E 20 railway line, on the Siedlce – Terespol section, stage III - LCS Terespol (PLN 122.9 million);
- Works on railway line no. 25, on the Skarżysko Kamienna and Sandomierz section (PLN 117.5 million).

The largest value of contracts signed in 2022 was for construction works (around 93%). In addition, nearly 37% of the value were contracts for programmes implemented with EU funds from the 2014-2020 perspective.

Local and Regional Rail Infrastructure Supplementation Programme - Rail + until 2029

The main objective of the programme is to eliminate transport exclusion by supplementing the network with rail connections of towns with a population of more than 10,000 people that do not have access to passenger or freight rail. The resolution on the programme in its original form provided for a total of around PLN 5.6 billion to be allocated for the implementation of projects, however, due to the significant interest in the Rail + programme, it was decided to increase the programme's budget to over PLN 11 billion in 2022. A total of PLN 13.2 billion will be allocated for the implementation of investments, of which approximately PLN 11.2 billion will come from the capitalisation of PKP PLK and approximately PLN 2 billion will be contributed by local governments.

As part of the programme, 46 projects received a positive evaluation, of which 34 projects concerning railway infrastructure in 11 provinces were qualified for implementation as part of the primary list:

- 10 projects for the revitalisation of a railway line of approximately 315 km;
- 14 projects for the reconstruction or extension of a railway line of approximately 516 km;

- 7 projects for the construction of new railway lines of approximately 189 km;
- 3 documentation projects for approximately 183 km of railway lines.

The reserve list includes 12 projects, the implementation of which will depend on the availability of funds under the programme. According to the report on the implementation plan of the Rail + programme for 2022, PKP PLK signed in 2022 18 implementation contracts worth approximately PLN 7.9 billion.

Central Communication Port

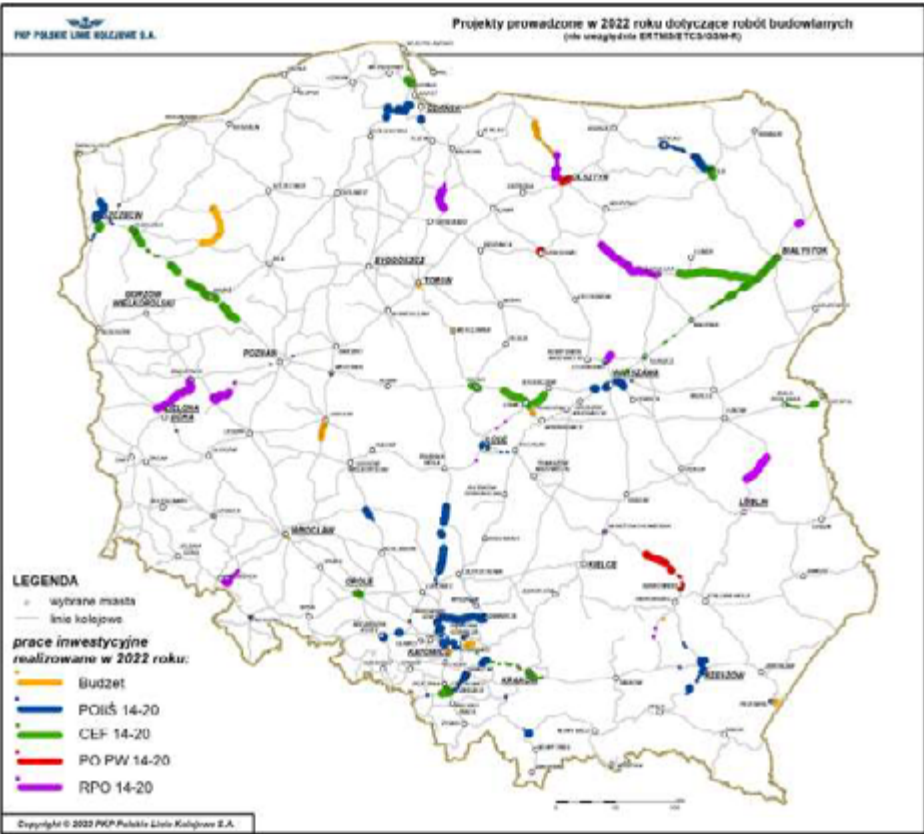
The outlook for the railway construction industry is also influenced by the implementation of the so-called railway component of the Central Communication Port (CPK), which assumes the execution of 30 investment tasks covering 1,981 km of new railway lines in 2020-2034. The first construction works are planned for the end of autumn 2023. The cost of implementing the first stage of the CPK between 2020 and 2023 covering all components, including the aviation component, has been estimated at around PLN 12.8 billion, financed primarily through treasury securities issued for this purpose.

Maintenance of infrastructure

Along with the implementation of investment projects for the construction and extension of the railway network, the tasks related to the maintenance of railway infrastructure will also be intensified. The current strategic programme for the railway market is comprised in the “Governmental Programme for Supporting the Tasks of Railway Infrastructure Managers, including Maintenance and Renovation, until 2023”, in its current form from November 2021, which is the second main programme supporting railway infrastructure after the KPK. The key objective of the programme is to strengthen the role of railway transport in the country's integrated transport system by halting and then reversing the downward trend in the share of railway transport in freight. The programme is focused on the

implementation of maintenance and repair projects on the existing railway network. Around PLN 23.8 billion will be allocated from public funds for its implementation in 2019-2023. Funding for the programme includes PLN 16.3 billion from the state budget and PLN 7.5 billion from the Railway Fund. The main beneficiary of the programme is PKP PLK. The other managers include PKP Szybka Kolej Miejska w Trójmieście Sp. z o.o. (manager of 32.7 km of line); Dolnośląska Służba Dróg i Kolei (manager of 45.7 km of line); Euroterminal Sławków Sp. z o.o. (manager of 5.5 km of line); CARGOTOR Sp. z o.o. (manager of 11.4 km of line). As the programme was coming to an end, a public consultation was held in 2023 on the draft multiannual programme entitled the “Governmental Programme to Support the Tasks of Railway Infrastructure Managers, Including Maintenance and Repairs, until 2028”.

Investments under the National Railway Programme (PKP PLK)



Source: 2022 KPK Implementation Plan Report.

2.8.3. Energy construction

We can distinguish three segments in the energy construction market:

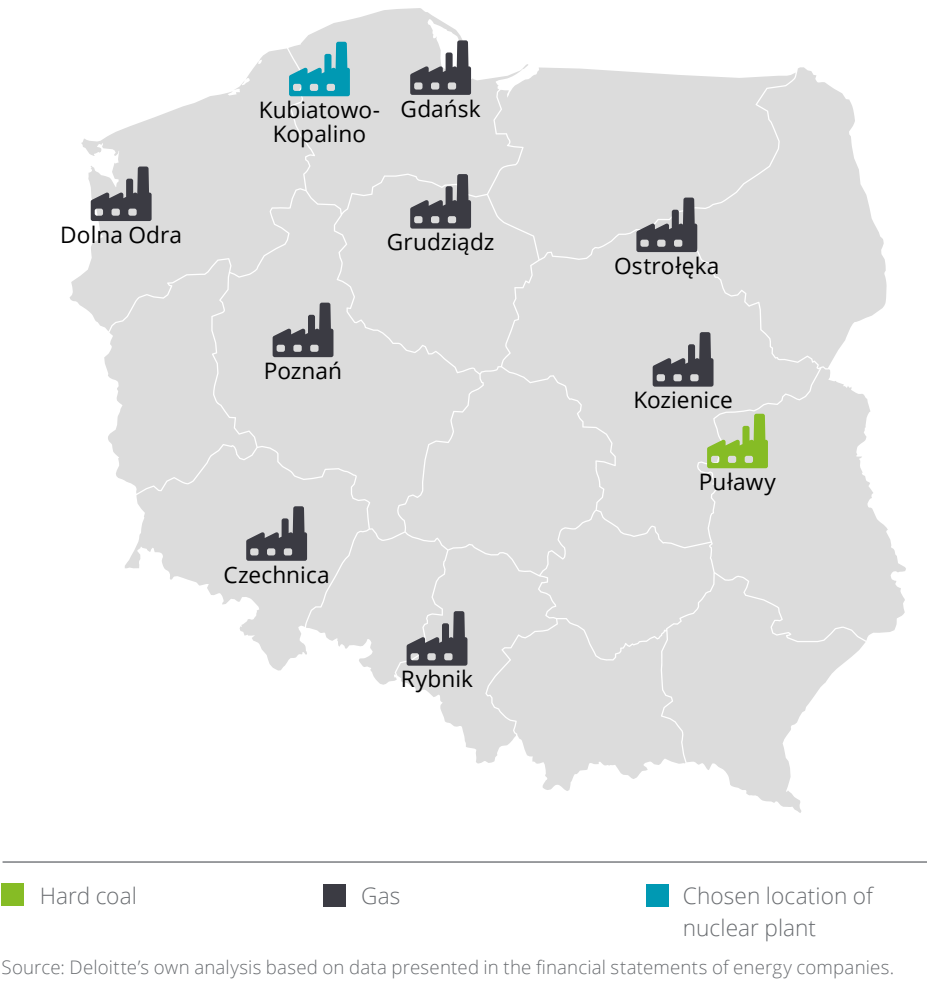
- power generation;
- power transmission and distribution;
- gas transmission and distribution.

Power generation

According to the data contained in the PTPIREE report “Power Distribution Transmission” for 2022, the estimated total capital expenditure by energy companies in Poland, i.e. Energa Operator, Enea Operator, PGE Dystrybucja, Tauron Dystrybucja, PSE, Stoen Operator, amounted to PLN 9,256.2 million. More than 81% of the investment value comprised expenditures on the connection of new customers and the replacement of assets. In terms of energy construction, the leading investor in 2022 was PGE Dystrybucja, which allocated PLN 2.6 billion for investments in energy infrastructure, of which a significant percentage included funds for the modernisation and development of the medium- and low-voltage power grid, as well as for connecting new customers. The second company in terms of investment value was Tauron Dystrybucja, with capital expenditure of PLN 2.1 billion, of which a significant proportion involved funds for the connection of new customers and new sources, and related network construction. Currently, the majority of the conventional fuel power units under construction

and planned in Poland are based on natural gas technologies. The last coal-fuelled investment will be a power unit at Zakłady Azotowe “Puławy”, providing the Azoty Group with its own electricity and heat supply. The main investors in the construction of new gas-fuelled units

Construction and extension works on power plants and CHP plants in Poland - planned and in progress



are PGE Polska Grupa Energetyczna S.A. (responsible for the construction of new units in Zespół Elektrowni Dolna Odra and EC Czechnica and steam-gas units in EC Bydgoszcz II and Elektrownia Rybnik), and Energa S.A. planning to complete the construction of steam-gas units in

Grudziądz, Gdańsk and Ostrołęka in 2025-2026.

Nuclear energy

Nuclear power is a stable source of energy. The possibility of storing nuclear fuel for a long time also enhances the country's

Major conventional fuel power units under construction in Poland

	Project	Power	Fuel	(Gross amount (PLN billion)	Investor	Planned implementation date
1	Power unit in Puławy	90 MWe + 250 MWt	hard coal	1.6	Grupa Azoty	Q4 2023
2	Dolna Odra Power Plant Complex	1 400 MW	gas	4.3	PGE	Q4 2023
3	EC Czechnica	179 MWe + 315 MWt	gas	1.2	PGE	Q2 2024
4	GCCT in EC Bydgoszcz II	53 MWe + 70 MWt	gas	b.d.	PGE	Q1 2025
5	CCGT in Grudziądz	563 MW	gas	2.0	Energa	2025
6	CCGT Ostrołęka	745 MW	gas	2.5	Energa	2025
7	CCGT in EC Karolin	200 MWe + 320 MWt	gas	n/d	Veolia	2025
8	CCGT in Łódź	350 MWe + 200 MWt	gas	n/d	Veolia	2025
9	CCGT in Gdańsk	450 MW	gas	2.5	Energa	2026
10	CCGT in Adamów	600 MWe	gas	2.5	ZE PAK	2026
11	CCGT in Rybnik	882 MWe	gas	4.6	PGE	2027

Source: Deloitte's own analysis



Dariusz Blocher
President of the Management Board,
UNIBEP S.A

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The industry is in a relatively difficult situation due to both external conditions such as macroeconomy, and geopolitical situation, but also internal conditions related to increasing competition for tenders and unfavourable contractual conditions. These trends can be reversed and we all, as the players in this market, hope for this. However, as with the execution of a construction contract, it will certainly be a process that should be planned accordingly. On the one hand, as general contractors, we should be well aware of the key risks associated with a given contract in order to properly factor them into the quoting. On the other hand, the supply of projects, especially from public entities, should be rationally spread over successive periods, so as not to lead to a situation when capacities are exhausted, both strictly operational and human as well as financial in terms of availability of guarantee and banking limits. In this context, further dialogue with the public parties will be key to success, especially with regard to contractual terms, including contract valorisation parameters. As a Group, we see directions for our growth, which, through further diversification of our operations in the road, industrial or energy sectors, but also further success in the housing sector, will allow us to build a solid order book for the coming years. We hope that by optimising processes, standardising products as well as production, we will be able to quickly improve the profitability of contracts.”

Planned capital expenditures of energy groups

Company	Total estimated expenditures (PLN billion)	Investments in the generation segment (in PLN billion)	Investments in distribution segment (PLN billion)	Other investments (in PLN billion)	Projects in progress	Source
Energa	31.5	13.6	16.9	1.1	• "Redevelopment/upgrading of the distribution network Construction of gas units in Grudziąc, Gdańsk i Ostrołęka Construction and commissioning of photovoltaic farms"	"Strategy for 2021-2030"
Enea	69.3	20.6	42.5	6.2	• "Modernisation of units in Power Plant Kozienice Development of renewable energy"	"Strategy to 2030 with an outlook to 2040"
PGE	75.0	nd	nd	nd	• "Modernisation of network infrastructure Construction of low-emission cogeneration sources Construction of units 9 and 10 in Dolna Odra Power Plant"	"Strategy to 2030 with an outlook to 2050"
Tauron	48.0	20.6	23.5	3.8	• "Modernisation of network infrastructure Development of renewable energy"	"Strategy for 2022-2030 with an outlook to 2050"
Total	223.8	54.8	82.9	11.1		

energy independence. In addition, a nuclear power plant can help Poland to achieve the European Union’s climate goals due to no CO2 emissions and its potential to ensure large-scale energy supply. At the same time, nuclear power units will fill the gap in the energy system that will be created when the old coal units are decommissioned.

In 2020, a resolution was adopted to update the multiannual programme entitled the “Polish Nuclear Power Programme”, which aims to build Polish nuclear power plants with installed capacity ranging from 6 to 9 GWe, based on proven large-scale pressurized water reactors. The schedule provides for the construction and commissioning of two nuclear power plants

of three reactors each. The construction of the first reactor should commence in 2026 and its commissioning should take place in 2033. The last one in the second power plant should be commissioned in 2043.

On 27 September 2023, a contract was signed for the design of Poland’s first nuclear power plant. The design and preparatory work will be carried out by Polskie Elektrownie Jądrowe in close cooperation with a consortium of American companies: Westinghouse Electric Company and Bechtel. The planned nuclear power plant, with a capacity of up to 3,750 MWe, will be built in the Pomorskie province in the Choczewo municipality.

Electricity transmission and distribution

The national electricity system makes it possible to supply electricity via the transmission and distribution networks, which, due to the country’s energy security issues and climate and energy targets, require further high-expenditure investments.

In 2022, electricity consumption was 173.5 TWh, down by 0.5% compared with 2021. At the same time, energy production was 175.2 TWh, an increase of 0.9% year-over-year.

Coal-fired (50.1%) and lignite-fired (26.8%)

power plants accounted for the largest share of the electricity generation structure in 2022. However, wind and other renewable energy sources increased their share from 10.9% in 2021 to 15.8% in 2022 (19.0 TWh and 27.6 TWh respectively). The share of gas-fired and hydroelectric power plants in power generation in 2022 was 5.7% and 1.6% respectively. In 2022, energy operators carried out investments worth PLN 9.3 billion. They mainly involved the connection of new consumers and the modernisation and replacement of assets, together accounting for more than 90% of the total amount of capital expenditure.

The total expenditure allocated to innovation in the energy sector in 2022 by Enea Operator, Energa Operator, PGE Dystrybucja, Stoen Operator and Tauron Dystrybucja amounted to PLN 455.3 million. Polskie Sieci Elektroenergetyczne S.A. (PSE), in its capacity as the Information Operator

of the Energy Market, is implementing its largest ever investment programme related to the expansion of the power grid, which will serve, among others, to take power out of offshore wind farms.

Gas transmission and distribution

The Gas Directive imposed an obligation to separate distribution and transmission services from gas trading, which is still in force. The gas system comprises both industrial and distribution pipelines with connections, as well as gas stations (reduction devices located on connections, measurement systems, gas treatment installations), gas pumping stations (located on pipelines) and gas warehouses. The gas supply system provides gas to municipal users, as well as large industrial plants.

In Poland, GAZ-SYSTEM S.A. is the operator responsible for natural gas transmission.

It was appointed by the President of the Energy Regulatory Office (Urząd Regulacji Energetyki - URE), and it manages assets worth over PLN 26.9 billion. It consists mainly of transmission system components, i.e. 11,800 km of high-pressure gas pipelines, 15 compressor stations, 36 hubs and 816 gas stations. **The company’s most important completed investment in 2022 was the commissioning of the bi-directional Baltic Pipe with the objective to create a new natural gas supply corridor from Norway via Denmark to Poland.** As part of the investment, 275 km of offshore pipeline between Denmark and Poland and 231 km of domestic gas pipelines were built, the gas compressor stations in Goleniów and Odolanów were expanded and a completely new compressor station in Gustorzyn was built. Full capacity of 10 billion cubic metres of gas was reached in January 2023. Another important project that GAZ-

Amount of completed investments by energy operators in 2022 [million PLN].

Operator	Amount of investment spent on connecting new customers and new sources and the related construction of new networks	Amount of investments spent on replacement of assets	Other investment expenditures. including IT systems	Total
Enea Operator	702.8	650.5	78.3	1 431.6
Energa Operator	869.5	481.7	239.2	1 590.4
PGE Dystrybucja	1 137.0	1 345.8	90.8	2 573.6
STOEN Operator	155.6	147.7	58.6	361.9
Tauron Dystrybucja	1 141.8	864.2	140.2	2 146.2
PSE	n/d*	n/d	202.8	1 152.5
Total	4 006.7	3 489.9	809.9	9 256.2

Source: Polish Association of Transmission and Distribution of Electric Power

*The PTPIREE report “Energy Distribution Transmission” for 2022 shows the total amount of investments for connecting new customers and for the replacement of assets in the amount of PLN 949.7 million.

SYSTEM completed was the construction of an interconnector with Lithuania and Slovakia in order to eliminate the so-called “energy islands”, i.e. regions dependent on gas supplies from only one direction.

Gas distribution in Poland is carried out through Polska Spółka Gazownictwa Sp. z o.o. (PSG), which is part of the PGNiG Capital Group. The company also acts as the National Operator of the Gas Distribution System. It operates countrywide with over 200,000 km of gas pipelines and manages assets worth PLN 17.6 billion, including 174 gas plants. In addition, it is the largest gas distribution system operator in Europe. The PSG’s main tasks include network operation, expansion, maintenance and repair of networks and equipment, measurement of the quality and quantity of transported gas.

The directions of transformation of transmission system should also be mentioned here. The plan for the further growth of GAZ-SYSTEM by the end of this decade envisages the implementation of 30 projects that will translate into the extension of the transmission network to 13,000 km and doubling the capacity of the compressor stations operating within the transmission system. Currently, the company is in the process of implementing further investments, i.e. the construction of a floating LNG Terminal (FSRU), expansion and modernisation of transmission infrastructure around Warsaw, as well as the construction of the Gustorzyn-Wronów gas pipeline with a total length of about 308 km.

Development of Gaz-System infrastructure: investments planned for 2022-2031



Source: Gaz-System, National Ten-Year Industrial System Development Plan.

2.8.4. Environmental protection

The largest national programme in the EU in terms of value and number of supported areas is the European Funds for Infrastructure, Climate, Environment (FEnIKS) programme for 2021-2027, which replaced the previous editions of the Operational Programme Infrastructure and Environment (OPI&E) under the EU perspectives for 2007-2013 and 2014-2020. The programme supports the activities related to the construction, reconstruction, and renovation of infrastructure necessary to fulfil the obligations laid down in the Council Directive 91/271/EEC of 21 May 1991 concerning urban wastewater treatment (Official Journal of the EC L 135/40 of 30.05.1991), the so-called Wastewater Directive.

Water and wastewater management

The directions of water and wastewater management include taking measures for efficient management of water resources, i.e. protecting waters against pollution

from insufficiently treated wastewater. The legal framework for collecting, treating, and discharging urban wastewater is set by the aforementioned Wastewater Directive. In Poland, the degree of implementation of the Wastewater Directive is documented by the National Urban Wastewater Treatment Programme (KPOŚK) and its updates (AKPOŚK). To date, six updates have been carried out in the following years: 2005, 2009, 2010, 2015, 2017 and 2022, the latest of which was adopted by the Council of Ministers on 5 May 2022. It contains a list of tasks planned by local authorities to be carried out between 2021 and 2027. VI AKPOŚK provides for construction of 8,022 km of sewerage network and upgrading 3,173 km of network. In addition, 60 new wastewater treatment plants are planned to be built and 978 other investments to be made at existing plants. The cost of the investments planned by urban agglomerations and submitted to the VI AKPOŚK is PLN 28.7 billion. The amount includes the construction and

modernisation of the wastewater network (PLN 15.4 billion), investments related to wastewater treatment plants (PLN 13.4 billion), as well as individual treatment systems (PLN 24.4 million).



Jakub Chojnacki
Vice-President of the Management Board, PORR S.A.

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Over the past several months, the construction market has decelerated a bit, which is related to the weakening macroeconomic situation in both Poland and Europe. The private sector is struggling primarily with high base rates, while in the public sector is strained by the lack of EU funds. The largest sector - infrastructure, both in the road and rail segments - continues to allow market players (including our Group) to maintain the engagement of resources in ongoing contracts, albeit to a lesser extent than in previous years. We are counting on the successive unblocking of EU funds for Poland and even distribution of public investments over the next years, so as not to lead to excessive accumulation. It should also be borne in mind that the situation beyond our eastern border may amplify the effect of both the outflow of labour and the increased demand for materials and products that will be needed for construction works in Ukraine. Our group is focusing its activities on the local market to be able to maximise the significant potential we see all the time in current and future contracts for both public and private investors.”

Waste management

Proper waste management is one of the environmental challenges. Given the importance of the issue and the need to meet European Union requirements, measures are being taken to improve the situation in this sector. Planned investments related to waste management are presented in the National Waste Management Plan 2028 (Krajowy Plan Gospodarki Odpadami – KPGO 2028) developed by the Ministry of Climate and Environment, which was adopted by the resolution of the Council of Ministers on 12 July 2023. The goals and targets presented in the KPGO 2028 apply to the years 2022-2028 with the perspective until 2035. The document outlines investments that require the allocation of significant expenditure, including:

- the construction of new and the modernisation of some of the existing Selective Municipal Waste Collection Points;
- construction of new installations for the automated sorting of selectively collected waste (paper, plastics, multi-material waste, metals);
- construction of new facilities for the treatment of bio-waste in aerobic and anaerobic processes (organic recycling).

It has been estimated that as part of KPGO 2028 a total of PLN 17.4 billion of capital expenditure will be required by 2028, with PLN 5.4 billion between 2029 and 2034.

Capital expenditure by province planned under WPGOs for 2016-2022 (PLN million)

Province	Amounts
Dolnośląskie	3 700
Kujawsko-Pomorskie	482
Lubelskie	433
Lubuskie	1 463
Łódzkie	13 976
Małopolskie	860
Mazowieckie	3 866
Opolskie	276
Podkarpackie	3 030
Podlaskie	614
Pomorskie	1 624
Śląskie	3 245
Świętokrzyskie	75
Warmińsko-mazurskie	605
Wielkopolskie	2 376
Zachodniopomorskie	438
Total	37 063

* Different WPGOs cover different time horizons
Source: Provincial Waste Management Plans

The provinces are responsible for establishing Waste Management Plans at regional level. In 2023 no new Plan has been established in any province, so the investment expenditures planned under the provincial Waste Management Plans are unchanged from the previous years.

Individual provinces are in the process of developing new plans, but the date of their adoption is unknown yet.

2.8.5. Construction in the retail and service space sector

The Polish retail and service space market was battered in 2022 by both high inflation and the associated higher labour costs, as well as the effects of the outbreak of war in Ukraine, i.e. the crisis in the commodity market resulting in the increase in material and energy prices and the outflow of construction workers from across the eastern border. These factors had a significant impact on new supply, which amounted to 319,000 sq. m in 2022 compared with 330,000 sq. m in 2021 (down by 3.3%).

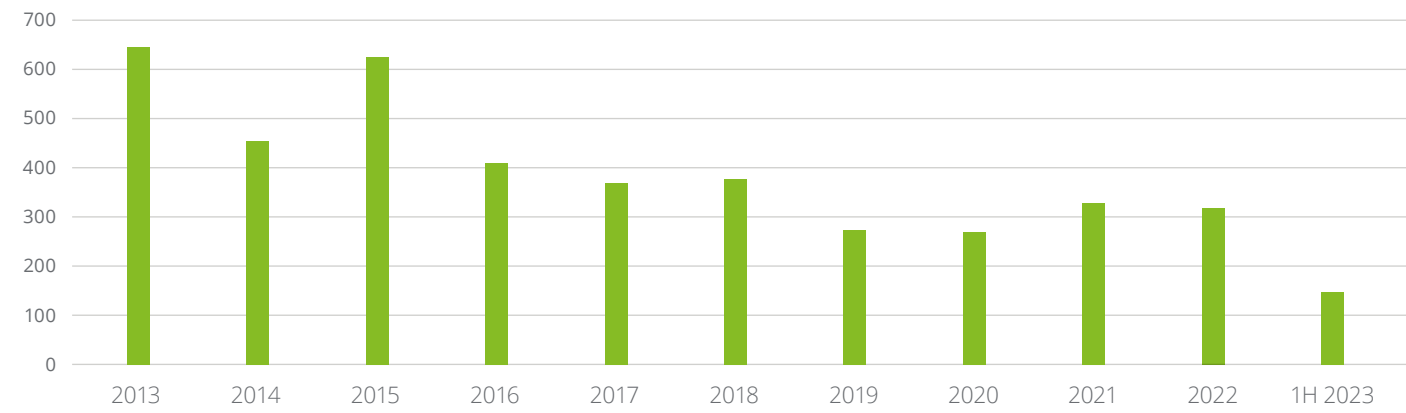
In the first half of 2023, the market has picked up the slack as 147,000 sq. m of retail and service space was completed, an

increase of 36.1% on the same period of the previous year. Most of the space (103,000 sq. m) consisted of retail parks, while the remainder included two traditional shopping centres in Warsaw and Bełchatów. At the end of June 2023, the total stock of modern retail space reached almost 12.8 million sq. m, of which more than 2 million sq. m were buildings of 2,000-5,000 sq. m in size. In the same period, about 375,000 sq. m of space was under construction, of which 227,000 sq. m is expected to be completed by the end of this year.

Retail parks are the main format of facilities under construction, accounting for nearly 70% of the total space under

construction. The largest developments currently under construction include the Koszalin Power Center (38,000 sq. m), Karuzela Biała Podlaska (28,000 sq. m) and Galeria Goplana in Leszno (15,200 sq. m). The Warsaw agglomeration is the largest market for retail space (1.8 million sq. m) and Metropolia Górnośląsko-Zagłębiowska (approx. 1.2 million sq. m).

Annual supply* of new retail and service space in Poland in 2013-1H2023 [thousand sq.m]



*Including expansion of existing space.
Source: Colliers

2.8.6. Housing construction

The year 2022 was particularly difficult for the housing market. Rising interest rates and the recommendations of the Polish Financial Supervision Authority regarding the rules for calculating creditworthiness resulted in limited availability of mortgage loans, which, combined with a significant increase in the cost of doing construction business, translated into a decline in the sale of flats in the primary market. **In the whole of 2022, the six largest agglomerations in Poland (Warsaw, Kraków, Wrocław, Trójmiasto, Poznań and Łódź) recorded a decrease in the number of flats sold by almost 50% compared with the previous year.**

However, the performance of developers in 2023 indicates that the economic situation has improved, as sales in the primary market have been increasing since the beginning of the year. In the second quarter of 2023, 15,500 flats were sold, an increase of 68.5% compared with the same period last year (9,200). This result is also 36.0% better than the first quarter of this year. It should be added that the housing sector is currently enjoying a boom due to the Safe Loan 2% programme, which came into

effect in July 2023. The Ministry of Finance estimates that around 50,000 loans will be granted under the programme by the end of the year, which could potentially encourage the purchase of flats on the primary market and improve the condition of this construction segment.

According to GUS/GUNB data, as at 30 June 2023, 111,900 flats were delivered in Poland, 2.5% more than the previous year. Developers delivered 64,300 flats, an increase of 2.5% on the previous year. Individual investors delivered 45,700 flats during the same period, i.e. up by 2.0% compared with the corresponding period of the previous year.

In the first half of 2023, 111,900 flats received building permits or were notified for construction, a decrease of 34.7% compared with the first half of 2022. Building permits for the largest number of flats were granted to developers (76,600, down by 37.6% YoY) and individual investors (34,800, down by 30.9%).

In January-June 2023, the construction of 85,600 flats has been commenced,

down by 28.5% year-over-year. Developers started construction of 48,000 flats (down by 33.0%), and individual investors of 35,600 (down by 23.3%). According to GUS estimates, 806,800 flats were under construction at the end of June this year, down by 8.4% year-over-year. The highest numbers of flats completed, flats whose construction has started and flats for which building permits were issued or notifications with a construction project were made in the first half of 2023, were recorded in the Mazowieckie province (22,400, 17,100, 20,100 flats, respectively). High figures were also recorded in the Wielkopolska province (22,400, 17,100, 20,100) and the Małopolska province (10,500, 8,700 and 12,000).

The housing market has been on an upward trend in the average prices of flats offered on the primary market for many years. According to data from the National Bank of Poland, the nominal average transaction price per square metre of a new flat based on the analysis of the six largest Polish cities (Warsaw, Krakow, Poznań, Wrocław, Katowice, Gdańsk) at the end of Q2 2023 amounted to PLN 11,146, an increase of

5.0% compared with the same period of the previous year (PLN 10,611).

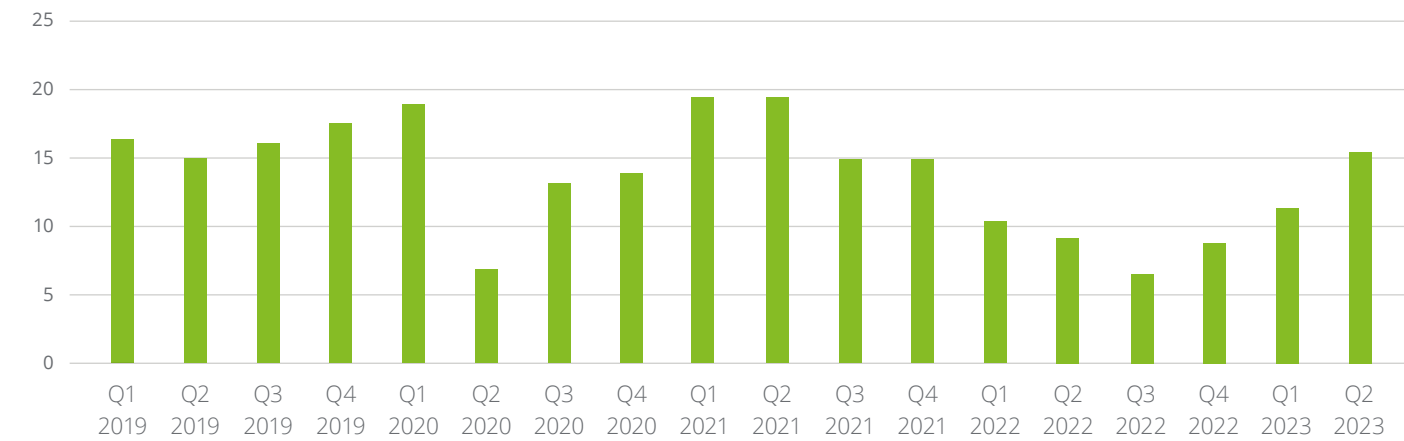
The most expensive city once again turned out to be Warsaw, where a buyer had to pay an average of PLN 13,135 per square metre. The high property prices result from a number of factors. The relatively small number of new development projects, together with the growing demand observed in the market from the end of 2022, translates into an increase in the prices of flats as the offer of cheaper flats is being exhausted, and this together leads to

an increase in the prices of flats delivered to the market. In addition, the high cost of raw materials and other products used in the construction of residential buildings (steel, concrete, timber) and an increasing cost of employment translate into growing housing prices.

Poland's housing market is once again among the European leaders in flats built per 1,000 inhabitants. In 2022, it was 6.31 new flats per 1,000 inhabitants. A higher figure in Europe was only achieved by France (7.09). For most European countries,

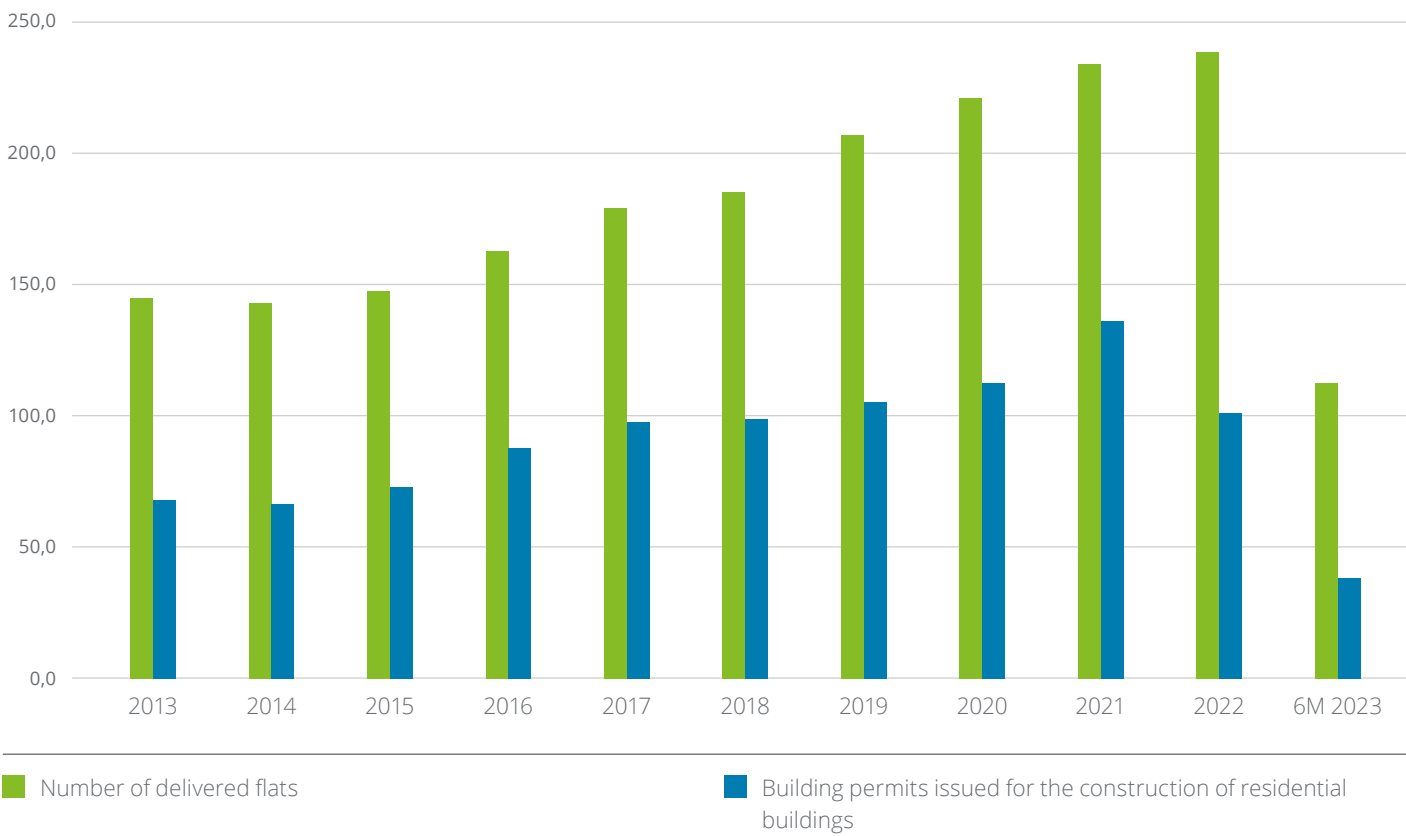
the figure was between 3 and 5 new flats per 1,000 inhabitants. Factors affecting the demand on the housing construction market. A key factor boosting demand in the housing market at present is the "Secure Loan 2%" programme, which came into force in July 2023. It is estimated that around 155,000 people will benefit from the programme by the end of 2027. With the declining availability of housing space and increased demand, consumers worried about strong price rises have also opted to purchase homes for both

Number of flats sold in the six largest cities in Poland [thousand units]



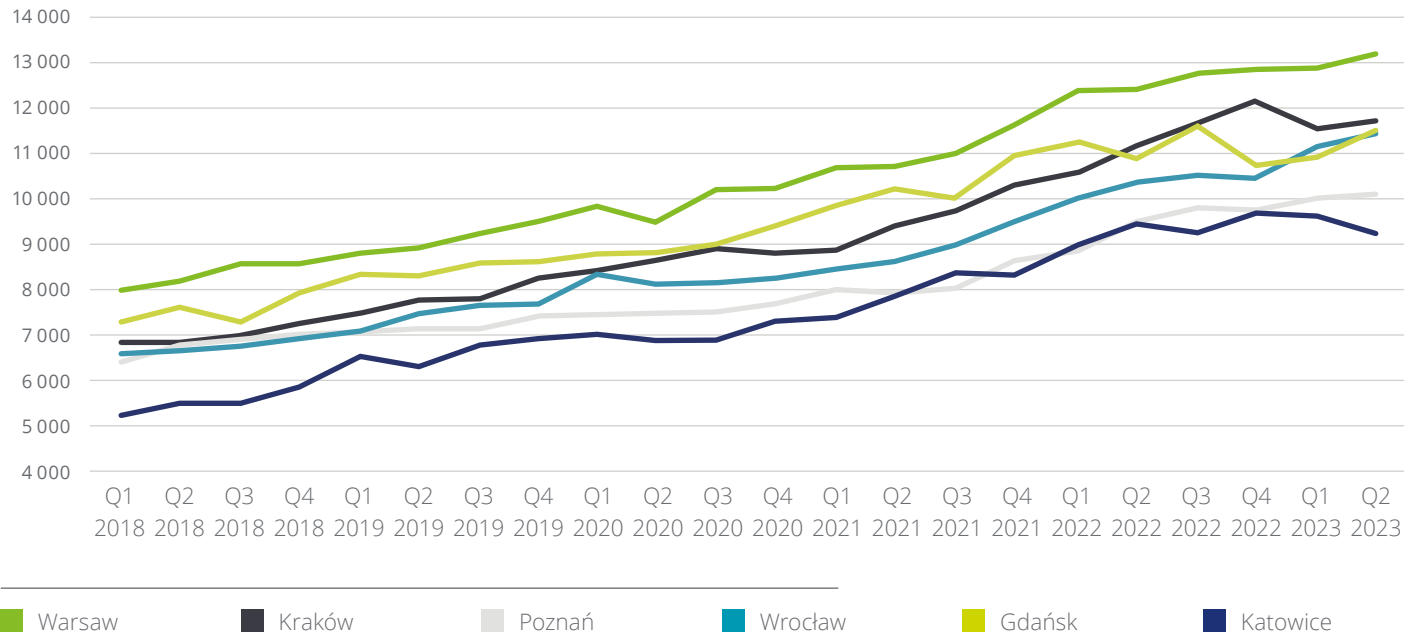
Source: JLL.

Number of flats delivered and building permits issued [thousand units]



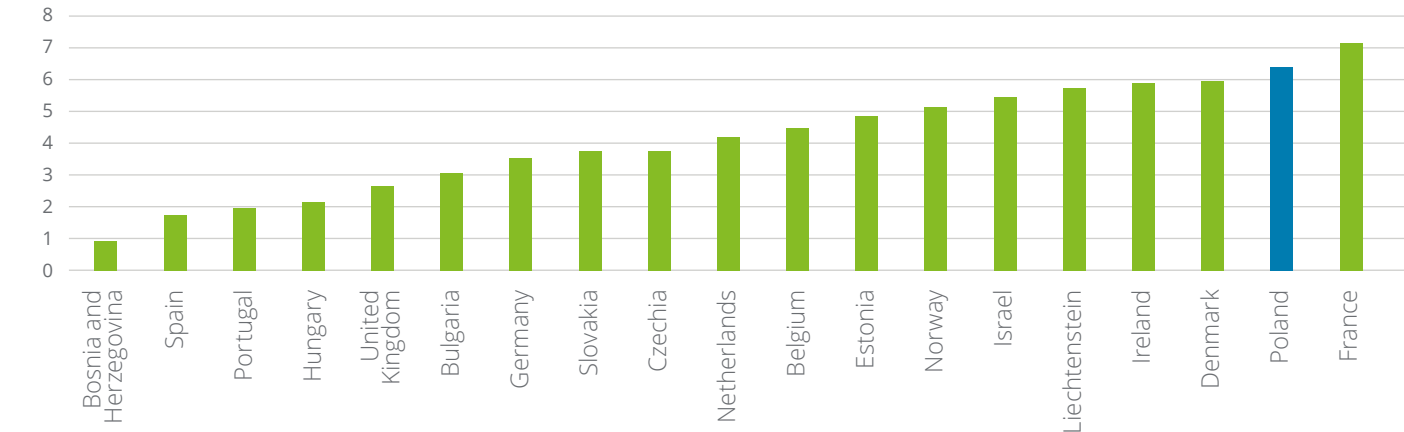
Source: General Inspector for Building Supervision, Statistics Poland

Average price sq. m in transactions on the primary market [PLN]



Source: National Bank of Poland.

Number of flats per 1000 inhabitants in 2022



Source: Deloitte.

own and investment purposes. Another factor influencing the housing market is the government's support programme – Flat Plus (Mieszkanie Plus), aimed at increasing the number of flats per thousand inhabitants. The programme provides for the construction of approximately 150,000 flats between 2019 and 2025, with 18,400 flats built and 24,600 under construction in 2022. The entire programme will be financed with government support of PLN 6 billion.

Supply and price factors in the housing market

Due to the continued high cost of financing, investors activity has decelerated. In the second quarter of 2023, 10,200 contracts for housing construction were placed on the market, down by 52.6% year-over-year. High sales paired with lagging supply may result in a rapid increase in property prices. In addition, factors such as the lack of interest subsidies on loans for developers

or the high cost of construction materials and employment will add to the price pressure. Furthermore, the concept of sustainable construction according to EU requirements may contribute to further changes in the housing segment, again leading to increasing prices.

Other important determinants of the housing market

High interest rates in recent years are holding back demand. For the first time in three years, the Monetary Policy Council (RPP) decided to reduce interest rates, cutting the reference rate by 0.75 p.p. in September 2023. RPP cut interest rates again in October 2023, when the main reference rate was reduced by 0.25 p.p. to 5.75%. This will result in increased lending capacity, which could translate into a boost for the housing construction market.

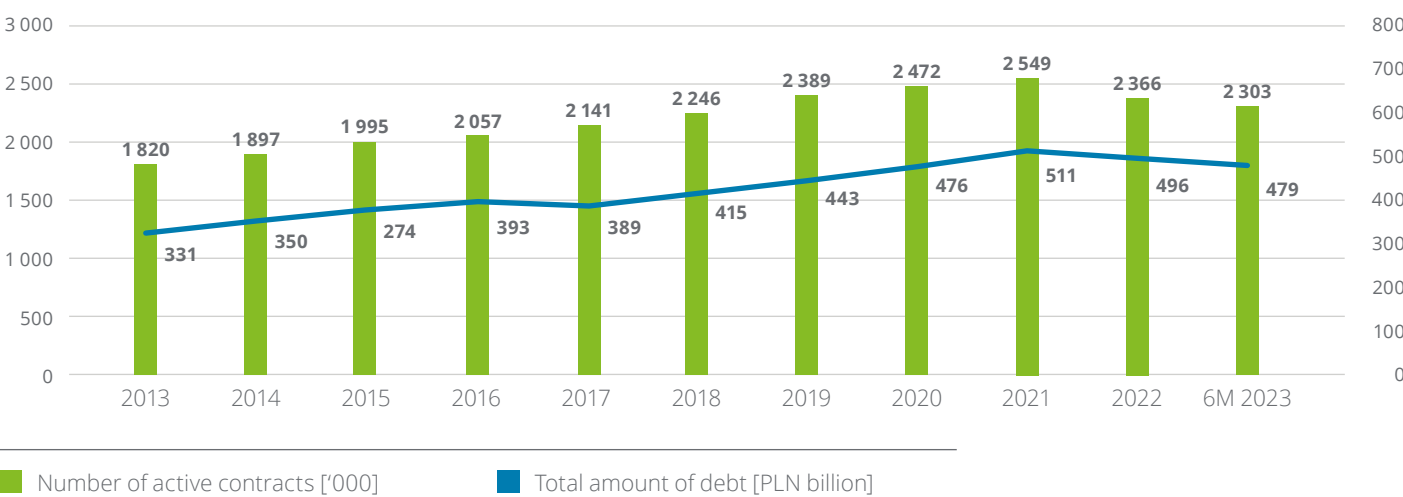
According to the AMRON SARFiN report, at the end of the second quarter of 2023, the number of active mortgage contracts amounted to 2,302,700 (-1.1% vs. first quarter of this year), while the total outstanding balance reached PLN 478.6 billion (-1.4%). During the same period, the number of newly concluded contracts amounted to 30,789, up by 40.2% vs. the previous quarter. The value of these contracts totalled PLN 11.3 billion, an increase of 51.2% compared with the previous quarter. It should be added that the "Safe Loan 2%" programme will further translate into an increase in the number of mortgage loans granted in the following quarters.

Inflation in Poland is another factor affecting the situation in the housing market. In the second quarter of 2023, inflation in Poland fell by 1.9% compared with the first quarter of this year, which in the long term has a positive impact on consumer sentiment.

The continued low level of unemployment also plays a part. The registered unemployment rate at the end of the second quarter of 2023 stood at 5.0%, a decrease of 0.4 p.p. compared with the previous quarter. The housing sector is also affected by a lower rate of increase in the prices of construction materials. Prices at the end of the second quarter of this year were 3.6% higher than in the corresponding period of 2022.

The above factors reduce uncertainty in the market, which may translate into a recovery in the mortgage market and an increase in developer activity.

Mortgages in Poland in 2013 - 6M2023



Source: Polish Bank Association

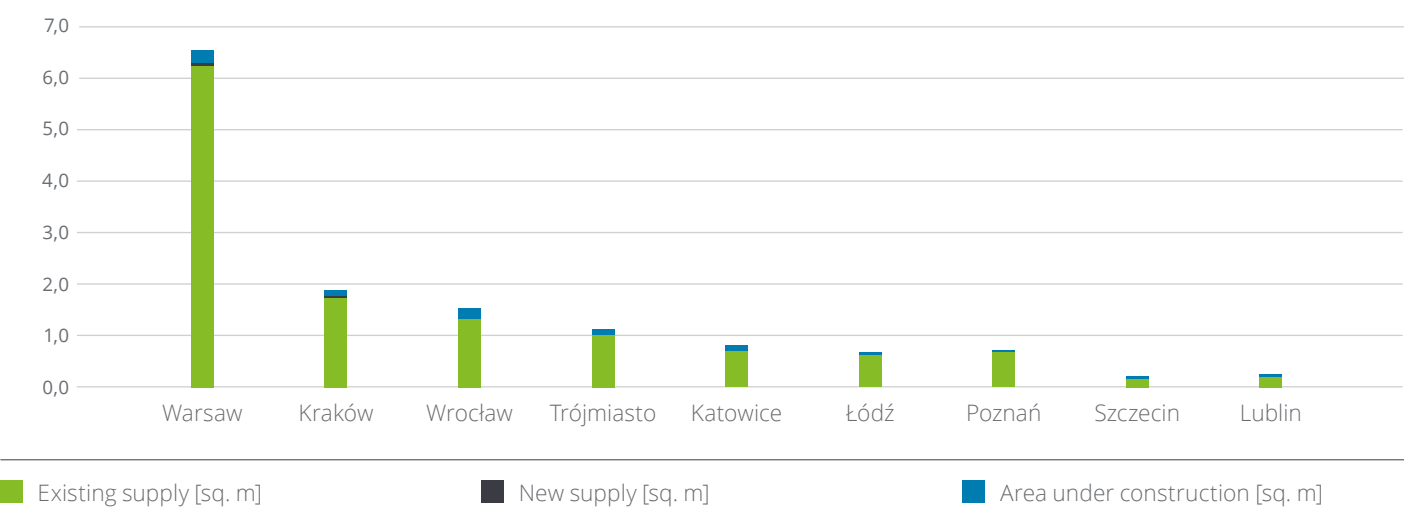
2.8.7. Office construction

The market has seen a clear slowdown in development activity in the office space segment. The supply wave that has been present for the last three years has come to an end. High inflation and high financing costs due to the restrictive monetary policy of the National Bank of Poland have been

among the main factors causing a decline in supply in the recent period. Asking rents and service charges are also under a great pressure in this market segment. One of the main challenges will be to find savings due to rising maintenance costs. A different working patterns and office functions

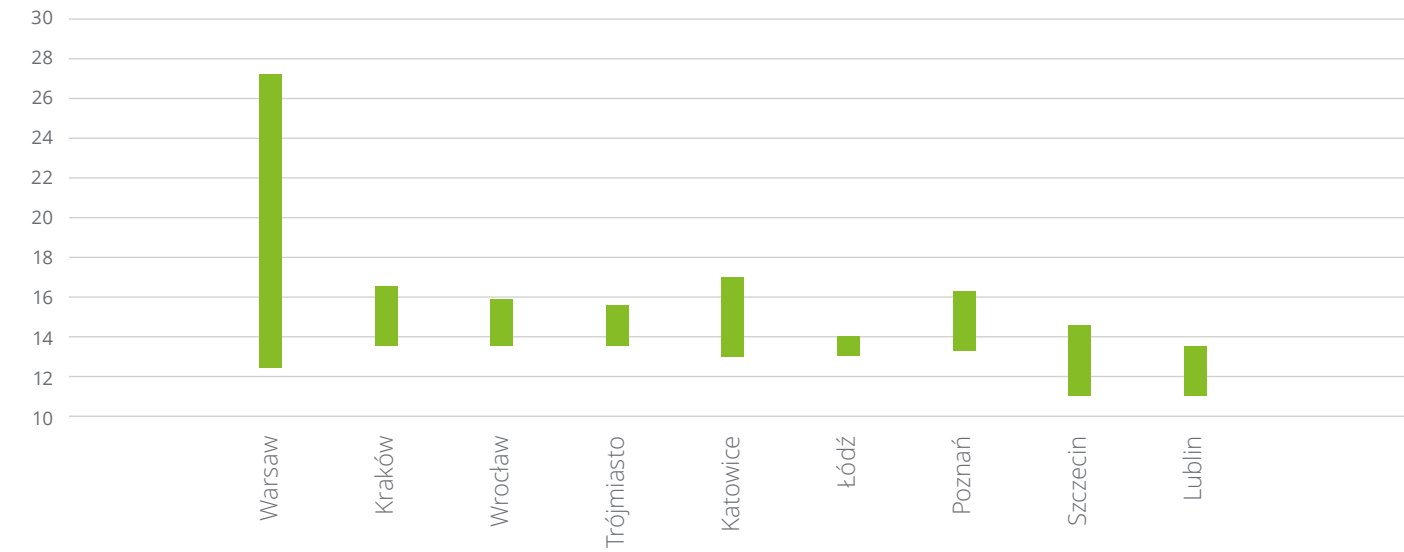
constitutes a significant factor affecting the market. Many landlords have rearranged their office space to better accommodate environments operating under a hybrid working model.

Supply of office space as at 30 June 2023 [million sq. m]



Source: Colliers Market Insights

Average rental rates in 1H 2023 [EUR/sq. m/month]



Source: Colliers Market Insights

The supply of office space at the end of the first half of 2023 in the nine largest cities in Poland amounted to 12.8 million sq. m, an increase of 2.0% compared with the corresponding period of 2022 (12.6 million sq. m at the end of the first half of 2022). In the first half of 2023, 135,000 sq. m of office space was completed, which is 70% less than in the corresponding period of 2022. In 2023, the office space market in Warsaw recorded the first quarter in 15 years in which no new project was delivered. In the first half of 2023, Kraków was a supply leader among regional cities, with space reaching almost 42,600 sq. m.

A gap in the new supply of office space can be seen in most markets. As of the end of June 2023, there was about 850,000 sq. m of modern office space under construction, up by 9% than in the same period last year.

In the first half of 2023, demand for office space totalled 325,700 sq. m, down by 32% on the first half of 2022. Demand in regional markets in the first half of 2023. totalled 343,000 sq. m, which was similar to the corresponding period of 2022.

Among the regional cities, the most office space was leased in Wrocław (88,100 sq. m) and Kraków (82,600 sq. m). The rental rates have remained the highest in Warsaw for years, where one has to pay between EUR 12.5 and EUR 27.5 per square metre of office space per month. In regional cities, rental rates are between EUR 11.0 and EUR 16.95.

As of 30 June 2023, the average office vacancy rate in Poland's nine largest cities was 14.3% (up by 0.9 p.p. compared with the first half of 2022). In June 2023, similarly

to 2022, the highest vacancy rate was recorded in Łódź (23.4%) and the lowest in Szczecin (4.4%).

Largest lease transactions in H1 2023

Tenant	Area (sq. m)	Building	City
BNY Mellon	20 300	Centrum Południe 3	Wrocław
Sii	10 100	Olivia Prime	Trójmiasto
Accenture	8 830	Proximo II	Warsaw
DPD	8 700	DPD HQ	Warsaw
Lionbridge Poland	7 100	Taifun	Warsaw
Confidential client	7000	P180	Warsaw
Boeing	6 000	SkyRes	Rzeszów
The National Labour Inspectorate (PIP)	6 000	Barska 28/30	Warsaw
PEKAO S.A. - banking companies	6 000	Forest Tower	Warsaw
Confidential client	5 900	Warsaw Spire A	Warsaw
The Energy Regulatory Office	5 7000	Towarowa 25a	Warsaw

Source: Colliers Market Insights

2.8.8. Warehouse construction

In the first half of 2023, the total demand for warehousing space in Poland was 2.3 million sq. m, the lowest recorded in the last four years. In the corresponding period of 2022, demand for warehouse space was 3.8 million sq. m.

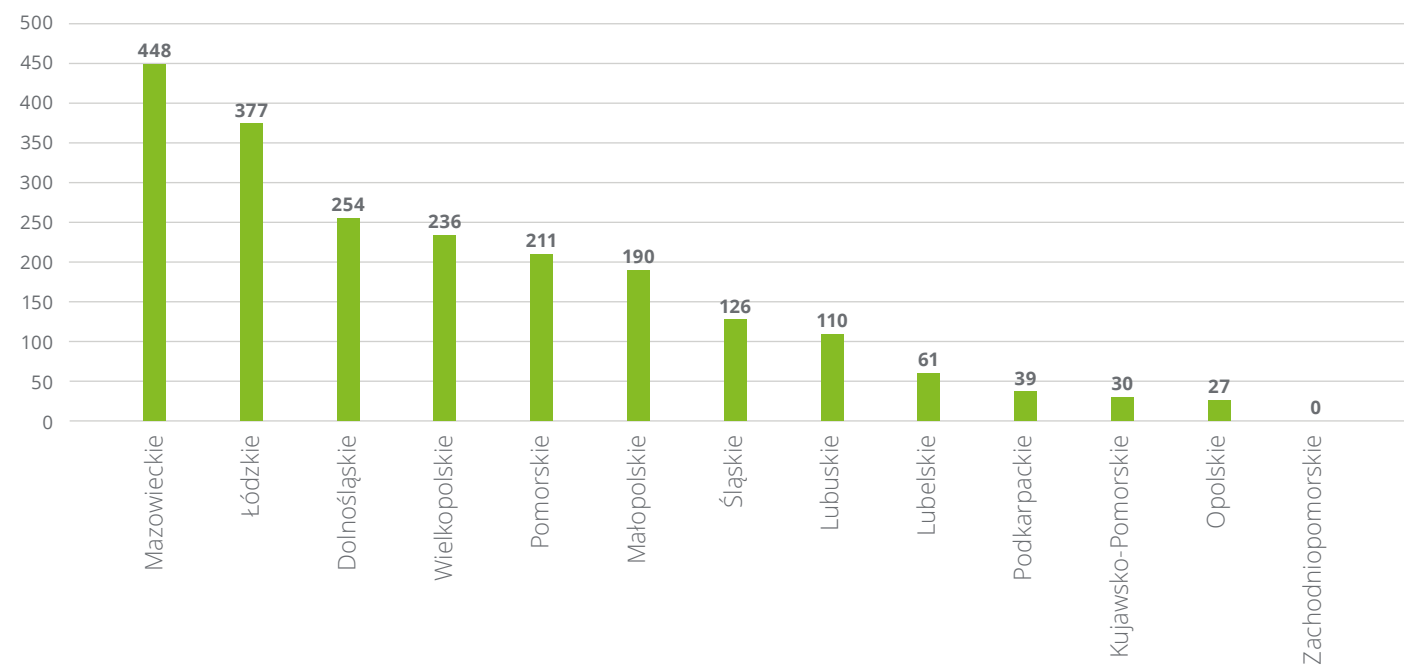
The first half of 2023 has also seen a change in the structure of lease contracts, with 50% of demand constituted new contracts and 40% renegotiations. By contrast, in the first half of 2022, the ratio was 62% and 31% respectively. The following industries were the leaders among tenants of warehouse space: third party logistics - 40%, e-commerce - 8% and electronics - 7%. With the end of June 2023, the stock of industrial and logistics space exceeded 30

million sq. m. The vacancy rate in Poland at the end of June 2023 was 6.6%, the highest it had been since the second quarter of 2020. In the corresponding period of 2022, the vacancy rate remained at a record low of 3.3%. In the first half of 2023, the highest vacancy rate was recorded in Świętokrzyskie (12.8%), Lubuskie (10.7%) and Lubelskie (9.4%) provinces, while the lowest in Małopolskie (1.2%), Pomorskie (1.6%) and Kujawsko-Pomorskie (4.4%) provinces.

In the first half of 2023, almost 1.5 million sq. m of modern warehouse space was under construction. In June 2023, around 2.1 million sq. m of modern warehouse space was under construction, the majority

of which is of speculative nature (almost 60%). From mid-2022 onwards, we can see a reduction in the volume of space under construction, the decline of which seems to stabilise in the range of 2.0-2.5 million sq. m.

Warehouse space under construction in H1 2023 [thousand sq.m]



Source: Marketbeat Industrial

2.9. Summary

Volume of selected planned investments, broken down by construction market segment

		Years	Volume of planned investments	Source	Comment
Road Construction	Expressways and motorways	by 2030 with an outlook to 2033	PLN 294.4 billion	Government Programme for the Construction of National Roads until 2030 (with an outlook to 2033)	
	National road network	by 2030	PLN 58.3 billion	Programme to strengthen the National Road Network until 2030	Programme adopted by the Ministry of Infrastructure by the Council of Ministers in October 2022
	National ring roads	by 2030	PLN 28.0 billion	100 ring road construction programme for 2020-2030	
Rail construction	Rails	by 2030 with an outlook to 2033	PLN 170.2 billion	"National Railway Programme until 2030 (with an outlook to 2032)"	"Update adopted by the Council of Ministers on 16 August 2023"
Energy Construction	Power generation segment	2021-2030 with an outlook to 2050	PLN 54.8 billion	Energa, Enea, PGE, Tauron	Investment expenditures in power generation sector, expenditures on nuclear plan construction excluded
	Distribution segment	2021-2030 with an outlook to 2050	PLN 82.9 billion	Energa, Enea, PGE, Tauron	
	Extraction segment	2021-2030 with an outlook to 2050	PLN 11.1 billion	Energa, Enea, PGE, Tauron	
Environment	Sewer system and sewage treatment	2016-2032	PLN 37.1 billion	Provincial Waste Management Plans for 2016-2022 (until 2032)	Taking into account new plans covering different time horizons

Source: Deloitte analysis



Chapter 3

Profiles of Poland's largest construction companies

Budimex Group

budimex

Budimex S.A. was established through the conversion of Centrala Handlu Zagranicznego Budownictwa Budimex, formed in 1968 to export construction services, mainly to developing markets in Asia and Africa, and to the Socialist block countries.

In the late 1980s and the early 1990s, Budimex became a leading contractor in the Polish market. In 1992, it was privatised and two years later converted into a joint-stock company. Its shares have been listed on the Warsaw Stock Exchange since 1995.

The shareholding structure at the end of 2022 was as follows: Ferrovia Construction International SE - 50.1%, Nationale-Nederlanden OFE - 9.2%, Drugi Allianz OFE - 8.5%, and remaining shareholders - 32.1%.

The Budimex Group provides broadly defined construction and installation services acting as a general contractor, both in Poland and abroad. The company offers construction services encompassing the following sectors: road, railway, airport, building, energy, industry, and environment. Over the last few years, Budimex has been steadily diversifying its operations both through seeking and acquiring projects within specialised construction segments (hydrotechnical and military projects) and through exploring new areas, such as public and private partnerships.

On 3 July 2019 Budimex S.A. acquired 100% of shares in FBSerwis, a firm providing waste management and facility management services. In the waste management sector, FBServices is focused on growing a broad chain of waste treatment services.

The Group's production capabilities and synergies are supported by another subsidiary company - Mostostal Kraków,

which specialises in the construction of steel structures. Mostostal Kraków has production capacity of around 17,000 tonnes per year, which supports not only Budimex's construction projects, but it is also the Groups' strong asset in the planned investments in the nuclear power stations in Poland.

The strategic plans of the company include the expansion of construction activities into the neighbouring countries, growth of the waste management segment through FBSerwis, and participation in energy transformation of Poland through investments in renewable energy sources. To that end, Budimex together with Ferrovia established a new joint-venture - BXF Energia with the aim of growing its business in the segment of renewable energy sources.

The Budimex Group revenue earned in 2022 increased by 8.9% compared with 2021. Poland is the Group's key market generating 96% of its revenue. Over 90% of its total sales revenue generated in 2022 came from construction activities. Compared with 2021, sales in this segment grew by 9.4% to exceed PLN 7.8 billion. The Budimex Group EBIT stood at PLN 562.4 million, remaining stable compared with the previous year. Its net profit fell by 44.4% from PLN 986.5 million in 2021 to nearly PLN 548.1 million in 2022. This result was due to the sale of Budimex Nieruchomości, which took place the previous year.

As at the end of 2022, its net debt increased by 1.9% compared with the previous period. The capital expenditures on non-financial fixed assets in 2022 were higher than in a prior year and amounted to PLN 222 million.

In 2022, the Budimex Group entered into construction contracts totalling PLN

7.9 billion. As at 31 December 2022, the Budimex Group's order book amounted to nearly PLN 13.3 billion recording a slight increase compared with PLN 13 billion as at 31 December 2021.

The key contracts entered into by the Group in 2022 include:

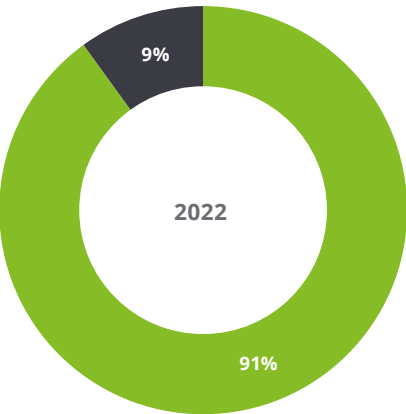
- design and enlargement of a DCT Container Terminal in Gdańsk;
- construction of a fast tramway route to Wilanów;
- construction of a D1 Bratysława – Triblavina motorway;
- design and construction of a S17 Piaski - Hrebenne expressway, section 9: Tomaszów Lubelski – Hrebenne and section 6: Zamość East junction - Zamość South junction;
- design and construction of a S1 Kosztowy – Bielsko-Biała road;
- construction of a hospital including an operating theatre, hospital wards along with diagnostic and rehabilitation facilities in Kraków.



Budimex Group: Flyover and railway bridge over Regalica river

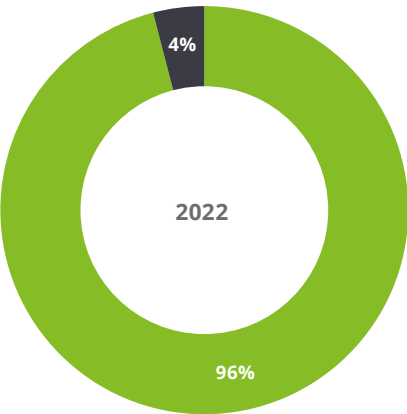
Basic data (PLN'000)	2022	2021	2020	% change '22 vs '21
Assets				
Non-current assets	1 818 134	1 672 413	1 536 267	8.7%
Current assets	5 569 074	5 190 905	5 925 973	7.3%
Non-current assets held for sale	0	0	0	0.0%
Total assets	7 387 208	6 863 318	7 462 240	7.6%
Equity and liabilities				
Equity	1 299 455	1 361 007	1 187 271	-4.5%
Provisions for liabilities	1 767 395	1 433 759	1 130 950	23.3%
Long-term liabilities, including provision for deferred tax	402 695	407 343	546 337	-1.1%
Short-term liabilities, including short-term accruals	3 917 663	3 661 209	4 597 682	7.0%
Total equity and liabilities	7 387 208	6 863 318	7 462 240	7.6%
Profit and Loss Account				
Revenue	8 619 054	7 911 192	7 709 106	8.9%
Domestic sales	8 290 101	7 567 382	7 330 159	9.6%
Exports	328 953	343 810	378 947	-4.3%
Construction operations	7 804 252	7 133 841	7 101 015	9.4%
Other operations	814 802	777 351	608 091	4.8%
EBITDA	714 814	733 692	584 957	-2.6%
EBIT	562 427	587 085	447 433	-4.2%
Net profit/loss	548 129	986 454	471 394	-44.4%
Other data				
Net debt	2 838 384	2 786 516	3 890 571	1.9%
Debt/Balance sheet total	82.4%	80.2%	84.1%	2.8%
Capital expenditure/ Revenue	2.58%	2.00%	2.51%	28.7%
Market capitalisation	7 250 548	5 795 332	7 850 505	25.1%

Sales by type in 2022



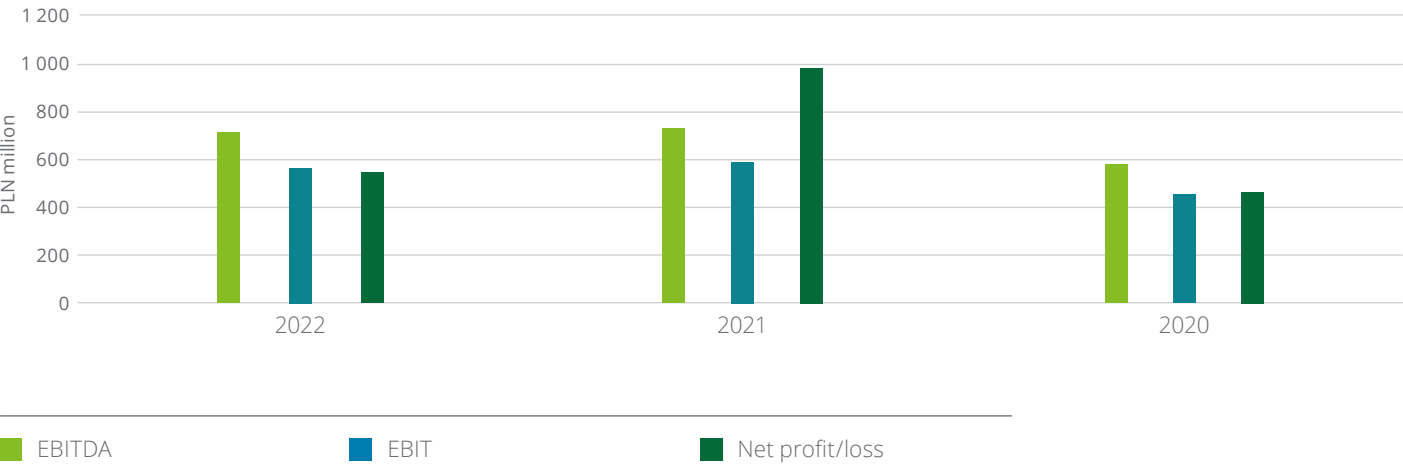
- Construction operations
- Other operations

Sales by geography in 2022



- Domestic sales
- Foreign sales

EBITDA, EBIT, and net profit/loss for 2022 - 2020



- EBITDA
- EBIT
- Net profit/loss

STRABAG

STRABAG has been present on the Polish construction market since 1987 and implemented the most technologically advanced projects covering general construction, infrastructure, and engineering construction, as well as those performed for local authorities across the country. The company is part of the European construction concern STRABAG SE, a leader in the implementation of innovative technologies. STRABAG SE operates internationally and employs over 79.00 people.

STRABAG, as a general contractor, offers services in the field of road, railway, and airport infrastructure as well as general, hydraulic, energy, industrial and environmental construction. The Group's laboratories ensure highest quality standards, conduct research, and implement innovative technologies. The Group also operates in the field of property development and facility management. STRABAG has an extensive network of asphalt mix plants, its own concrete plants, and aggregate mines. It has experienced and highly qualified personnel and a state-of-the-art equipment. The STRABAG Group employs over 4.500 people in Poland.

Two firms play a key role among the specialised entities operating under the STRABAG brand and these are: STRABAG Sp. z o.o. and STRABAG Infrastruktura Południe Sp. z o.o. The financial statements of the STRABAG companies in Poland are not consolidated at the local level.

The STRABAG Group works on nearly 600 projects a year across the country, not just the biggest and most advanced technologically, but also smaller ones of great importance to the regions and local authorities. STRABAG operates locally and hires workers and subcontractors for construction sites in individual regions.

It is also involved in initiatives supporting local communities. STRABAG Sp. z o.o., in its operational activities, focuses mainly on building construction and infrastructure projects, but also specialises in railway construction, modernization and construction of quays, as well as industrial and energy construction.

In 2022, Strabag Sp. z o.o., as the Group's largest company in Poland, employed 4,233 people. The company maintains a similar level of generated revenue compared with a previous year, which is close to PLN 4.4 billion. Its EBIT was PLN 160.8 million and net profit PLN 167.2 million, which is higher by 78% compared with a previous year. The firms in the STRABAG Group meet their cash needs mainly through a group cash pool system.

The company have worked on realizing many infrastructure and building investments, including:

- design and construction of S1 - a ring road around Bieruń with DK44;
- design and construction of S12 - a ring road around Chełmo;
- design and construction of S19, Bielsk Podlaski - Boćki and Boćki - Malewice section;
- design and construction of S19, Międzyrzec Podlaski - the border of Mazowieckie and Lubelskie province;
- design and construction of 2nd road of S19, Sokołów Małopolski North – Jasionka;
- design and construction of a A2 motorway - Siedlce Zachodnie - Malinowiec;
- construction of a sports facility for Śląza Wrocław;
- design and construction of a DK61 ring road around Pułtusk;
- design and construction of a DK74 ring road around Wąchock;

STRABAG

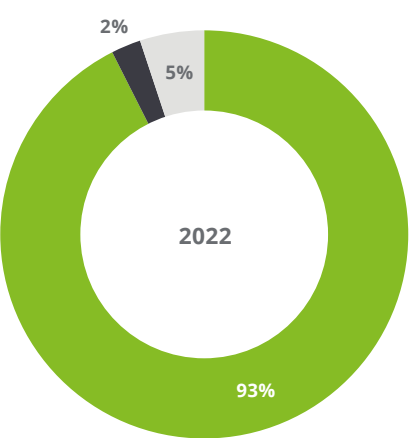
- construction of a DW 871 ring road around Tarnobrzeg;
- construction of a DW 830 ring road around Nałęczów
- enlargement of a KAN Production Plant in Białystok;
- construction of a CRAFT office building in Katowice;
- commencement of construction of an Upper One office building in Warsaw;
- construction of R unit along with kitchen and laundry facilities in the Regional Hospital in Lublin;
- construction of a primary school at Strzałowa Street and two P&R parking lots in Toruń;
- construction of a High School named after Tadeusz Kościuszko in Pruszków;
- construction of a tramway route along Kasprzak and Wolska Street in Warsaw;
- construction of 5 Rogów Square in Warsaw;
- construction of a tunnel underneath a railway station along with redevelopment of Zwycięstwa Street in Białystok;
- construction of a Górna Route in Łódź;
- redevelopment of Batorego and Warszawska Streets in Rzeszów;
- works on a E59 railway line: Poznań-Szczecin, Wronki - Krzyż and Dobiegniew – Słonice sections;
- works on a E30 railway line: Kraków Główny - Rudzice along with construction of three bridges over the Vistula River.



STRABAG: Railway bridges in Kraków

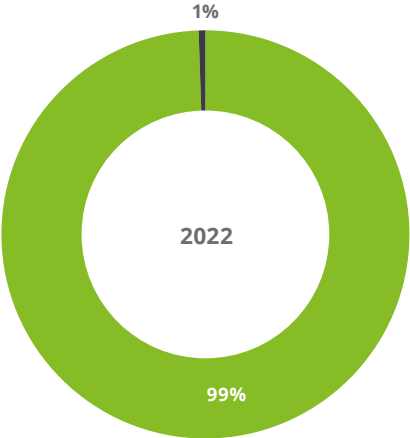
Basic data (PLN'000)	2022	2021	2020	% change '22 vs '21
Assets				
Non-current assets	951 119	906 766	944 413	4.9%
Current assets	2 306 458	2 026 657	2 372 152	13.8%
Total assets	3 257 577	2 933 423	3 316 565	11.1%
Equity and liabilities				
Equity	766 832	599 607	805 664	27.9%
Provisions for liabilities	389 880	476 654	490 253	-18.2%
Long-term liabilities and long-term accruals	0	0	0	0.0%
Short-term liabilities, including short-term accruals	2 100 865	1 857 162	2 020 648	13.1%
Total equity and liabilities	3 257 577	2 933 423	3 316 565	11.1%
Profit and Loss Account				
Revenue	4 397 806	4 444 539	4 471 681	-1.1%
Domestic sales	4 375 448	4 437 613	4 468 388	-1.4%
Exports	22 359	6 926	3 293	222.8%
Construction operations	4 068 354	4 253 812	4 304 661	-4.4%
Other operations	329 452	190 727	167 019	72.7%
EBIDTA	278 409	258 670	273 919	7.6%
EBIT	160 778	146 662	171 353	9.6%
Net profit/loss	167 224	93 943	155 681	78.0%
Other data				
Capital expenditure/ Revenue	1.7%	2.3%	2.7%	-26.3%

Sales by type in 2022



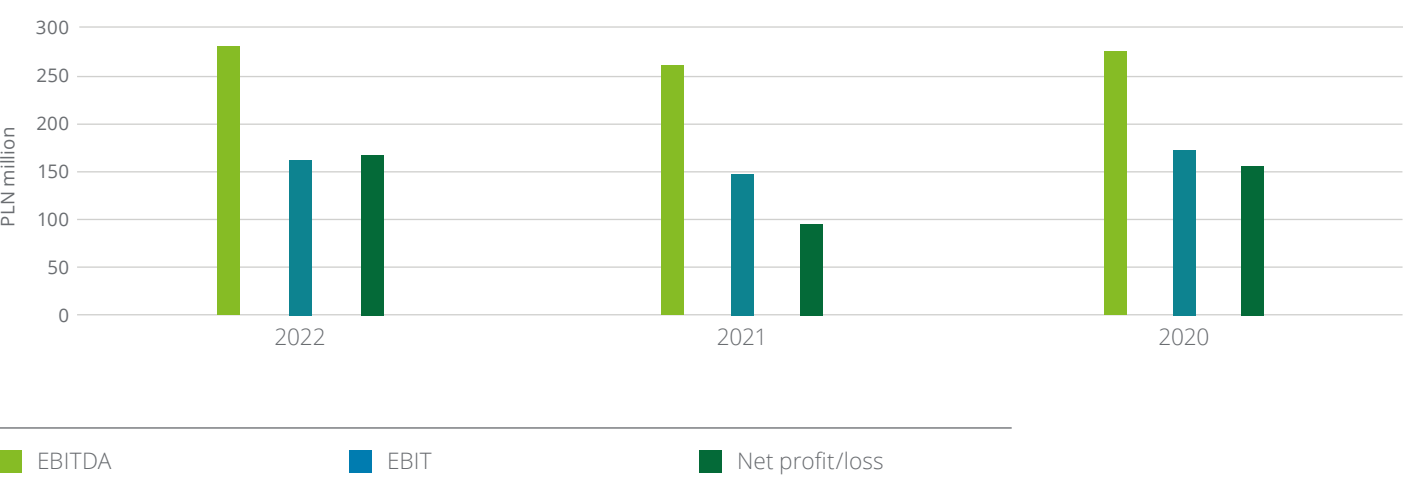
- Construction operations
- Sale of asphalt and grit mixtures
- Other operations

Sales by geography in 2022



- Domestic sales
- Foreign sales

EBITDA, EBIT, and net profit/loss for 2022 - 2020



- EBITDA
- EBIT
- Net profit/loss

Strabag Infrastruktura Południe Sp. z o.o.



STRABAG Infrastruktura Południe Sp. z o.o. is one of the key companies in the STRABAG Group in Poland. It operates in the road construction industry, mainly in the south and south-west of the country both within large infrastructure projects and medium and small regional projects. The company has been operating on the Polish market for over 25 years.

STRABAG Infrastruktura Południe ("SIP"), having specialized infrastructure and facilities, which enables the construction of bituminous and concrete surface, is involved in the design and construction of motorways, expressways, ring roads of cities and airports.

In 2022, SIP employed 560 people. It generates its revenue entirely in Poland. In 2022, the company recorded PLN 670.5 million in revenue, up by 5.1% year-on-year. SIP EBIT and net profit were PLN 33.9 million and PLN 32 million, respectively. Thus, the company's profit in 2022 was up by 92% compared with a previous reporting period. The company meets its cash needs mainly through the STRABAG Group cash pool system. As at the end of February 2023, the order's book for 2023 and subsequent years was over PLN 715 million.

The major remaining contracts secured in 2022 and moving into subsequent years include:

- redevelopment and enlargement of several sections of national and regional roads, including:
 - access road to Pyrzowice airport through DW 913;
 - DW 934 Bieruń - Imielin;
 - DW 948 Kety - Żywiec;
- design and construction of a DK46 ring road around Kędzierzyn Koźle;
- construction of a south ring road around Zielona Góra;
- design and construction of a ring road around Góra through DW 323.



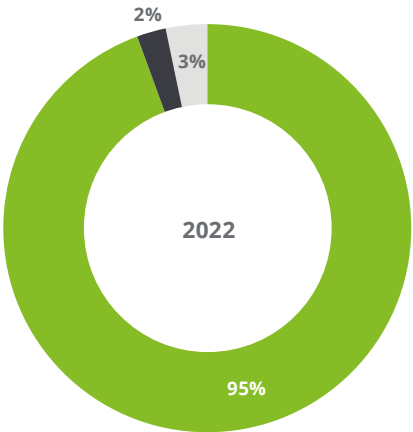
STRABAG: Zielona Góra ring road



STRABAG: Railway bridges in Kraków

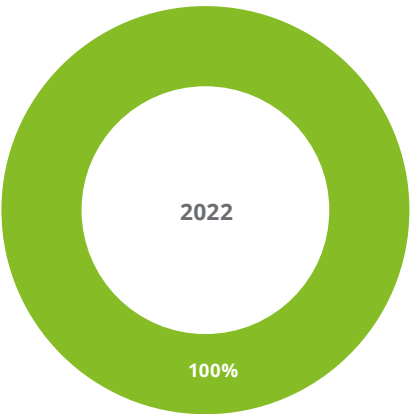
Basic data (PLN'000)	2022	2021	2020	% change '22 vs '21
Assets				
Non-current assets	53 301	69 257	79 227	-23.0%
Current assets	360 386	255 959	220 324	40.8%
Total assets	413 687	325 216	299 551	27.2%
Equity and liabilities				
Equity	139 967	107 923	91 230	29.7%
Provisions for liabilities	73 139	65 764	50 700	11.2%
Long-term liabilities	0	0	0	0.0%
Short-term liabilities, including short-term accruals	200 581	151 529	157 621	32.4%
Total equity and liabilities	413 687	325 216	299 551	27.2%
Profit and Loss Account				
Revenue	670 474	638 211	715 115	5.1%
Domestic sales	670 474	638 211	714 760	5.1%
Exports	0	0	355	0.0%
Construction operations	633 846	608 700	619 430	4.1%
Other operations	36 628	29 511	95 685	24.1%
EBITDA	51 264	39 423	78 870	30.0%
EBIT	33 863	20 713	59 847	63.5%
Net profit/loss	32 044	16 693	48 013	92.0%
Other data				
Capital expenditure/ Revenue	1.3%	2.2%	1.6%	-39.1%

Sales by type in 2022



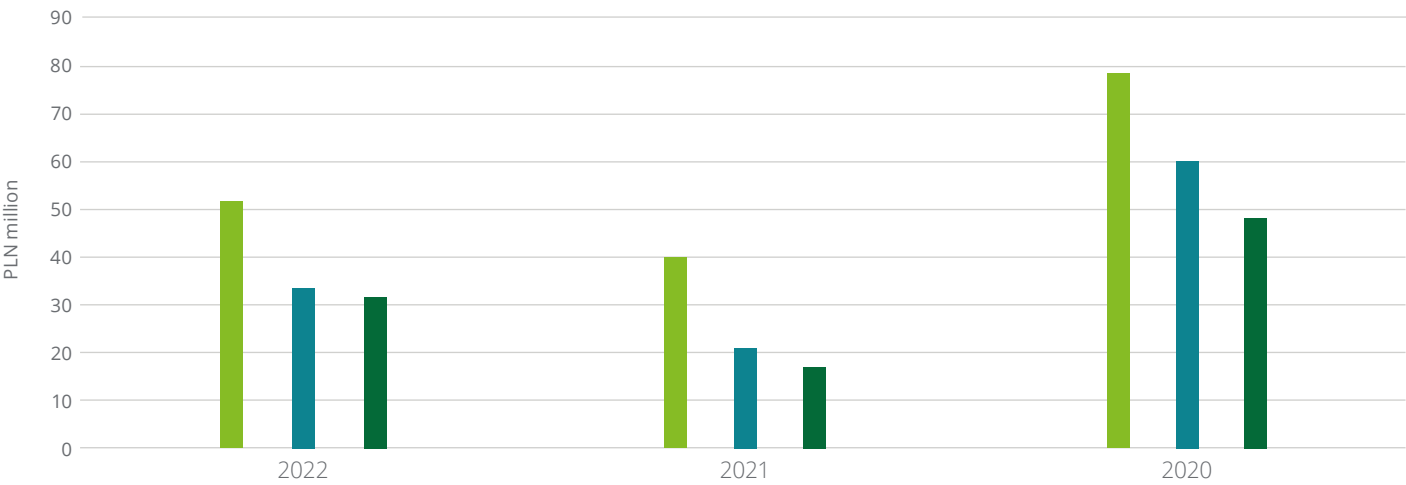
- Construction operations
- Sale of asphalt and grit mixtures
- Other operations

Sales by geography in 2022



- Domestic sales
- Foreign sales

EBITDA, EBIT, and net profit/loss for 2022 - 2020



- EBITDA
- EBIT
- Net profit/loss

PORR Group



Established in 1869, PORR is one of the largest Austrian construction companies and one of the key players on the European market. The PORR's focus is on its core business, that is construction through, among others, smart growth, digitalisation, and increased innovation.

In line with its smart growth strategy, the PORR Group's directs its effort on providing a full range of construction services in its home markets in Austria, Germany, Poland, Switzerland, the Czech Republic, Slovakia, and Romania. In addition, the PORR Group operates selectively by providing tunnels and railway construction and civil engineering in selected foreign markets.

In Poland, the PORR Group has been involved in construction activities since 1987. At present, it is represented by "PORR S.A." (in which it holds 100% of shares) and its subsidiaries. On the Polish market, PORR offers a comprehensive menu of services. The main areas of competence (activity segments) are infrastructure construction (road and bridge construction, hydrotechnical construction), railway, building, and industrial construction.

Green and Lean

By its "Green & Lean" strategy, PORR aspires to actively shape changes leading to climate neutrality. It seeks to promote climate-neutral construction projects, smart technologies, and partnerships based on a comprehensive cooperation model. It strives to manage its business based on LEAN principles and on LEAN Design and Construction principles when implementing projects.

PORR's leading position as one of the best in the industry as far as management of sustainability and ESG factors are concerned has once again been confirmed

in 2022 by ISS - the rating agency, which has awarded PORR a Prime status. The ISS agency awards a Prime status to companies recognised as leaders in their industry. More than 100 criteria are analysed within: Environment (E), Social Responsibility (S) and Corporate Governance (G). PORR received a very high industry rating of C+, well ahead of other construction companies.

PORR S.A.'s performance and financial situation

PORR's revenue increased by 14% compared with a previous year and amounted to PLN 3.92 billion, of which approximately 98% was earned in Poland. Nearly 94% of the company revenue comes from construction activities. Within its operations, the PORR Group completed over 40 different projects in Poland with revenue exceeding PLN 10 million.

The company has been further diversifying its operation year by year. In 2022, under construction activities, infrastructure construction projects generated just under 42% of revenues, railway projects 23%, building projects 24%, and industrial construction 10%. A significant increase in industrial construction turnover to PLN 369 million in 2022 is particularly noteworthy. It has become another important pillar of the PORR Group's business. The company's capital expenditure on fixed assets increased compared with 2021 from PLN 42 million to over PLN 47 million in 2022.

In 2022, PORR again significantly increased the profitability of its operations and, for another consecutive year, achieved a positive EBITDA of PLN 141.3 million. Despite the difficult situation on the Polish construction market, the financial situation of PORR S.A. has improved over the recent years. This is evident by, among others,

generated net profit of PLN 96.8 million, an increase in equity to PLN 485.6 million, a stable and high level of revenue, a high cash balance at PLN 394.3 million. The company has no borrowings or loans and has not used its high credit and guarantee lines. In addition, the good and stable financial outlook for PORR S.A. is confirmed by full and diversified order's book (equal to twice annual revenues) and the strong support of 100 % of its shareholders.

The projects performed by PORR S.A. in 2022 include:

- 1. Infrastructure construction including:
 - construction works on the following expressways: S1, S3, S7, S16, S19 and S61;
 - implementation of coastal protection in the Hel Peninsula area;

- extension of the maritime part of the LNG regasification terminal in Świnoujście.
- 2. Railway construction - including:
 - modernisation of the track systems and associated infrastructure on the E59 railway line between Krzyż and Dobiegniew;
 - modernisation of the E30, 93, and 131 railway lines at the selected sections.

- 3. Building constructions - including:
 - office buildings: LIXA C and SKY SAWA in Warsaw, Andersia Silver in Poznań;
 - hotel buildings: Infinity Zieloniec, Horizon in Szklarska Poręba;
 - residential and commercial development: Horizon Gdańsk Letnica, complex at 23 and 25 Kościelna Street in Poznań.

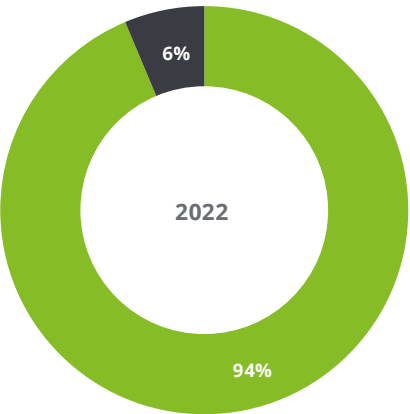
- 4. Industrial construction - including:
 - construction works on the expansion of the LNG Terminal in Świnoujście;
 - construction works on the Poland-Lithuania gas pipeline.



PORR S.A.: Selvita's R&D Centre

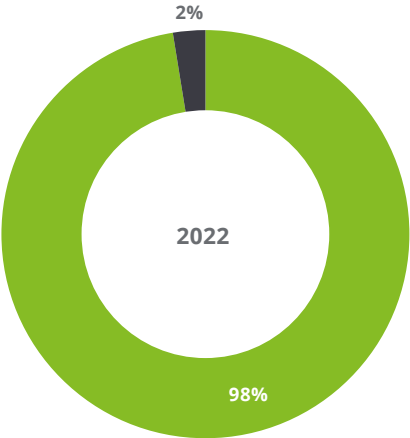
Basic data (PLN'000)	2022	2021	2020	% change '22 vs '21
Assets				
Non-current assets	411 166	371 687	376 924	11%
Current assets	1 666 105	1 516 261	1 474 437	10%
Total assets	2 077 271	1 887 948	1 851 361	10%
Equity and liabilities				
Equity	485 576	389 414	308 673	25%
Provisions for liabilities	122 609	110 096	67 925	11%
Long-term liabilities, including provision for deferred tax	109 727	112 684	192 921	-3%
Current liabilities	1 145 100	1 116 016	1 163 138	3%
Accruals	214 258	159 738	118 704	34%
Total equity and liabilities	2 077 271	1 887 948	1 851 361	10%
Profit and Loss Account				
Revenue	3 918 733	3 497 545	2 687 950	12%
Manufacturing cost of products for internal purposes	43	22	9	95%
Revenue	3 918 690	3 497 523	2 687 941	12%
Domestic sales	3 827 059	3 347 436	2 518 564	14%
Exports	91 630	150 087	169 377	-39%
Construction operations	3 671 286	3 315 704	2 484 840	11%
Other operations	247 404	181 819	203 101	36%
EBIDTA	141 336	120 434	59 058	17%
EBIT	102 445	84 630	26 156	21%
Net profit/loss	96 841	79 298	22 386	22%
Other data				
Net debt	1 197 414	1 205 016	1 188 230	-1%
Debt/Balance sheet total	76.6%	79.4%	83.3%	-3%
Capital expenditure/ Revenue	1.21%	1.20%	1.42%	1%

Sales by type in 2022



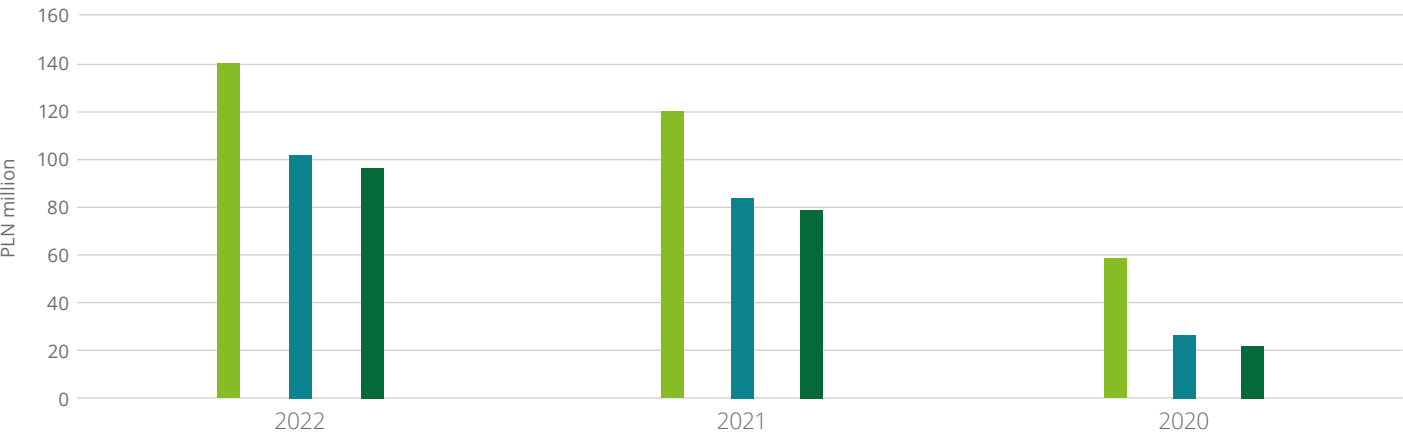
- Construction operations
- Other operations

Sales by geography in 2022



- Domestic sales
- Foreign sales

EBITDA, EBIT, and net profit/loss for 2022 - 2020



- EBITDA
- EBIT
- Net profit/loss

Erbud Group



The ERBUD's history began in 1990 in a small, detached house in Toruń. After thirty years, it grew to become the fourth largest independent construction company in Poland with its headquarter in the award-winning Royal Wilanów - an A+ class office building that ERBUD built itself. The Group has also a dozen of branches, technical offices and firms in Poland and Germany, and it carries out contracts in Belgium, the Netherlands and Norway, among others. The ERBUD's flagship projects include Galeria Młociny - the largest shopping mall in Warsaw, the prestigious Hala Koszyki in Warsaw, the multiple award-winning office building Neuca in Toruń, and the highest office building in Łódź - the Hi Piotrkowska complex.

Furthermore, ERBUD offers maintenance services for industry and specialised turnkey construction projects. In Konin, ERBUD Industry has built the first in Poland zero-emission waste combustion plant; and the electrode boilers in the Gdańsk HP Plant allowing adjustment of heat supply in the scope previously unavailable in Poland. Ecology and sustainable development mark the company's growth direction. Its subsidiary - ONDE, specialises in the construction of wind and photovoltaic farms. In 2022 it has started the construction of ecological wooden modules

- start-up MOD21.

ERBUD has been listed on the Warsaw Stock Exchange since 2007 and is included in the WIG Construction stock index. It is also part of the Construction Security Alliance (Porozumienie dla Bezpieczeństwa w Budownictwie) comprising 17 largest general contractors in Poland. The company has established the ERBUD Foundation Wspólne Wyzwania, which supports young people from children's homes starting independent life. ERBUD is a main sponsor of the university sports league ERBUD University Esports EDU, which is a part of the European League.

In 2022, the Group generated revenue of PLN 3.9 million, an increase by 24.3% compared with a previous year. Over 87% of this revenue comes from sales in the domestic market. The Group carries out primarily building construction projects (54%), engineering and road construction (28%) or industrial construction (17%).

During the analysed period, the value of EBITDA and EBIT declined compared with 2021, reaching PLN 54 million and PLN 20.9 million respectively. The Group's net profit stood at PLN 11 million.

In 2022, the Group secured, among others, the following projects:

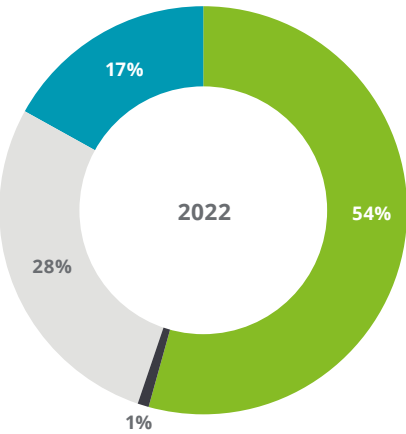
- the Lotos Group's HBO project
- – construction works;
- construction of a logistics center in Nadarzyn;
- construction of a penitentiary complex in Chmielów;
- execution of the 4th stage of the Popowice Port investment;
- acting as a general contractor under the design and build formula of two multi-family residential estates along with infrastructure in Wrocław



ERBUD Group: Maritime Science Centre in Szczecin

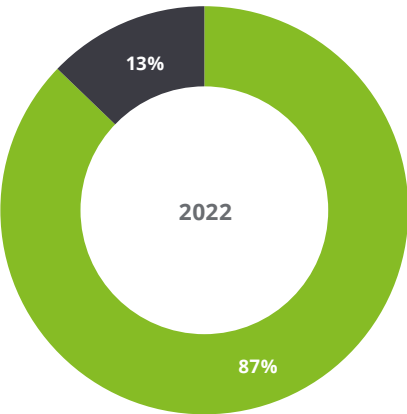
Basic data (PLN'000)	2022	2021	2020	% change '22 vs '21
Assets				
Non-current assets	442 555	329 472	209 723	34.3%
Current assets	1 573 713	1 503 718	990 140	4.7%
Total assets	2 016 268	1 833 190	1 199 863	10.0%
Equity and liabilities				
Equity	665 478	684 733	310 493	-2.8%
Provisions for liabilities	56 402	57 232	51 838	-1.5%
Long-term liabilities, including provision for deferred tax	221 547	181 612	52 907	22.0%
Short-term liabilities, including short-term accruals	1 072 841	909 613	784 625	17.9%
Total equity and liabilities	2 016 268	1 833 190	1 199 863	10.0%
Profit and Loss Account				
Revenue	3 855 649	3 102 095	2 228 344	24.3%
Domestic sales	3 360 333	2 688 583	1 848 736	25.0%
Exports	495 316	413 512	379 608	19.8%
Construction operations	3 833 319	3 079 758	2 228 344	24.5%
Other operations	22 330	22 337	0	0.0%
EBITDA	53 986	118 463	93 559	-54.4%
EBIT	20 858	90 814	70 618	-77.0%
Net profit/loss	10 994	21 338	50 373	-48.5%
Other data				
Net debt	1 186 829	785 247	596 782	51.1%
Debt/Balance sheet total	67.0%	62.6%	74.1%	6.9%
Capital expenditure/ Revenue	1.45%	2.74%	0.60%	-47.1%
Market capitalisation	409 467	657 176	342 227	-37.7%

Sales by type in 2022



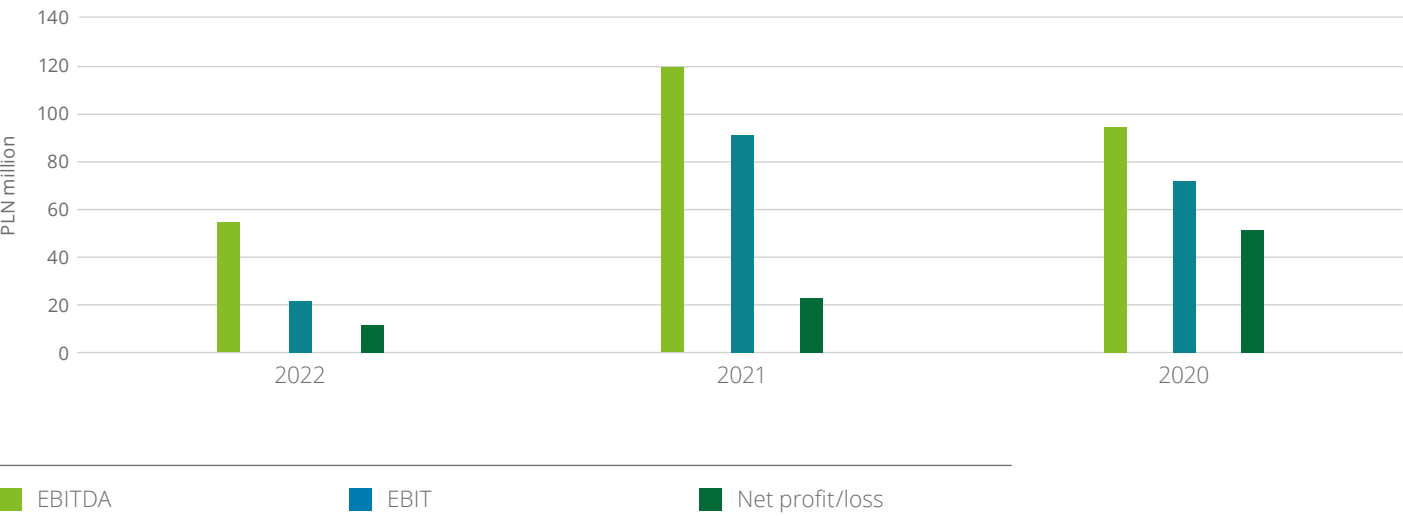
- Construction operations - buildings
- Other operations
- Construction operations – road and engineering
- Industrial construction

Sales by geography in 2022



- Domestic sales
- Foreign sales

EBITDA, EBIT, and net profit/loss for 2022 - 2020



- EBITDA
- EBIT
- Net profit/loss

Polimex-Mostostal Group



The Polimex Mostostal Capital Group ranks among the largest Polish engineering and construction groups in Europe. The company carries out specialised investments in Poland and abroad for the energy, petrochemical, gas, and environmental protection industries. It is a major European manufacturer and exporter of steel structures and gratings. It also galvanises and paints steel structures.

The company has been operating on the market since 1945 and is listed on the Warsaw Stock Exchange. The Polimex Mostostal Capital Group is one of the leaders in terms of specialised services, order book, experience, professionalism of orders performed, and references held on the Polish construction market.

The Group comprises the subsidiaries and associated firms specializing in production, commercial and service activities. Polimex Mostostal S.A. is the parent company in the Group.

The Group's companies are focused primarily on the following segments:

- energy sector - turnkey energy projects, i.e. comprehensive services starting from design, procurement, construction, and installation works, and commissioning, to necessary tests and trials, along with maintenance services;
- petrochemical - specialist, investment,

modernisation and overhaul services for the petrochemical and refinery, chemical industries, as well as environmental protection and oil & gas storing industries;

- construction - comprehensive services in the segment of industrial and general construction under a general contractor formula, including the execution of projects involving the construction of production plants, warehouses, wind and photovoltaic farms, environmental protection facilities, and general construction including administration and office buildings, shopping centres and multiplexes, sports facilities, and stadiums;
- Infrastructure - roads, bridges and hydraulic infrastructure projects, design and construction of buildings and facilities, provision of comprehensive supervision of works and contract management services (consultant, acting investor);
- production - production and supply of steel structures and products, including platform gratings, various transport pallets and other services related to steel products, such as anti-corrosion protection of steel structures, including the hot-dip galvanizing method.

The Polimex Mostostal Group manufactures refinery furnaces and offers installation and commissioning services, along with maintenance and periodic

onsite inspections. Apart from the parent company, the Group includes among others: Polimex Energetyka, Naftoremont-Naftobudowa, Mostostal Siedlce, Polimex Budownictwo, Polimex Infrastruktura, Polimex Operator, Stalfa, Instal-Lublin and Energomontaż Północ-Bełchatów.

The Group ended 2022 with sales revenue of PLN 3.8 billion, which went up by almost 64% compared with 2021. The highest revenues were generated from energy construction projects - more than PLN 1.6 billion, while industrial construction generated PLN 387 million. More than 73% of its revenues in 2022 came from domestic sales. The Group EBITDA for 2022 was PLN 207 million, an increase of PLN 43 million compared with 2021. The Group net profit for 2022 was almost 51% higher than for 2021 and it was PLN 131 million at the end of 2022.

The Polimex Mostostal Capital Group has the most experience in the construction of power units in Poland. In 2022, it executed the following strategic contracts in the energy segment:

- a project for the construction of a complete Heat and Condensing Power Unit based on coal fuel for the Azoty Group, Zakłady Azotowe „Puławy” S.A. The fee for the task is calculated as a lump sum and amounts to PLN 1.2 billion (net), out of which approx. 99% is

- assigned to the Group;
- performance of the contract for PGE Górnictwo i Energetyka Konwencjonalna S.A. in a consortium with General Electric, for a turnkey construction of two gas and steam units, complete sets of generating equipment and necessary installations at the Dolna Odra Power Plant owned by PGE Górnictwo i Energetyka Konwencjonalna S.A.; the fee PLN 1.5 billion net;
- performance of the contract with Zespół Elektrociepłowni Wrocławskich Kogeneracja S.A. (part of PGE Group) and the consortium of companies Polimex-Mostostal S.A. (leader) and Polimex Energetyka (partner) for a turnkey construction of a gas and steam CHP plant in Siechnice (EC Czechnica); the fee PLN 1.2 billion net;
- performance of the contract with PGE Energia Ciepła and the consortium of Polimex Mostostal and Polimex Energetyka for a turnkey construction of gas-fueled cogeneration source with a capacity of min. 50 MWe, composed of gas engines, as well as a standby and peak source at PGE Energia Ciepła Branch CPH Plant in Bydgoszcz; the fee PLN 359 million net.

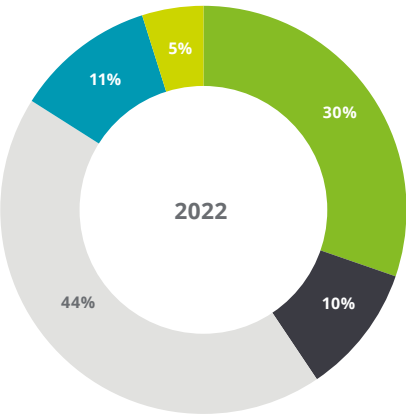
In the infrastructure segment in 2022, the Group implemented, among others, the project involving the enlargement of tramway lines in Olsztyn, the fee of PLN 210

million and the construction of a warehouse - PANATTONI BTS Zakroczym, the fee of PLN 140 million.

In 2022, Polimex Mostostal signed a Memorandum of Cooperation on the potential construction of nuclear power plants with the biggest players in this energy sector, that is Westinghouse, Bechtel, EDF and Korea Hydro & Nuclear Power. The Polimex-Mostostal Group has got a great potential, experience, competent staff, numerous credentials, and complementary competencies of its subsidiaries, which will help expand its order book to include more projects to be delivered in this market segment.

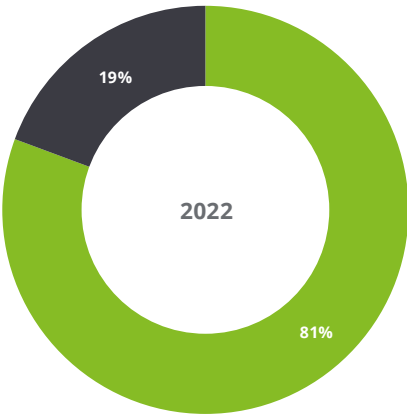
Basic data (PLN'000)	2022	2021	2020	% change '22 vs '21
Assets				
Non-current assets	777 414	763 266	738 389	1.9%
Current assets	1 950 810	1 586 793	1 173 775	22.9%
Assets held for sale	503	36 838	26 890	-98.6%
Total assets	2 728 727	2 386 897	1 939 054	14.3%
Equity and liabilities				
Equity	1 037 570	901 230	788 121	15.1%
Provisions for liabilities	63 186	44 403	52 381	42.3%
Long-term liabilities, including provision for deferred tax	238 789	244 998	194 601	-2.5%
Short-term liabilities, including short-term accruals	1 389 182	1 196 266	903 951	16.1%
Liabilities directly related to assets held for sale	0	0	0	0.0%
Total equity and liabilities	2 728 727	2 386 897	1 939 054	14.3%
Profit and Loss Account				
Revenue	3 784 203	2 304 000	1 615 320	64.2%
Domestic sales	3 050 460	1 682 395	1 072 626	81.3%
Exports	733 743	621 605	542 694	18.0%
Construction operations	2 632 557	1 584 689	1 083 657	66.1%
Other operations	1 151 646	719 311	531 663	60.1%
EBITDA	207 252	164 360	126 876	26.1%
EBIT	167 098	127 504	89 532	31.1%
Net profit/loss	131 053	87 025	63 210	50.6%
Other data				
Net debt	715 201	652 289	148 735	9.6%
Debt/Balance sheet total	62.0%	62.2%	59.4%	-0.4%
Capital expenditure/ Revenue	0.5%	0.9%	0.7%	-36.7%
Market capitalisation	1 084 207	922 813	880 222	17.5%

Sales by type ine 2022



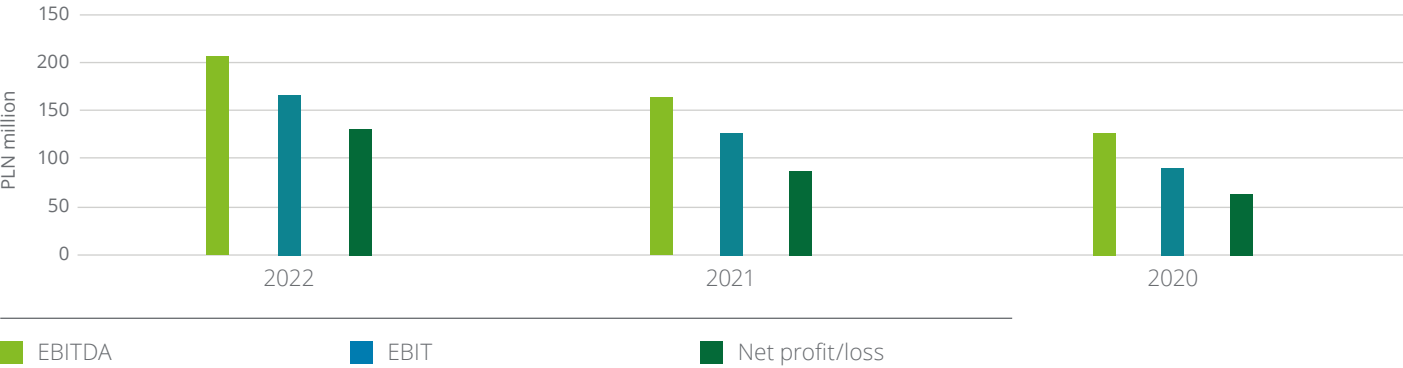
- Manufacturing
- Industrial construction
- Energy sector
- Petrochemical sector
- Infrastructural construction

Sales by geography in 2022



- Domestic sales
- Foreign sales

EBITDA, EBIT, and net profit/loss for 2022 - 2020



- EBITDA
- EBIT
- Net profit/loss

MIRBUD S.A.



MIRBUD S.A. has been present on the Polish market since 1988. From 2002 onwards, it has performed construction contracts for, among others, industrial facilities, public utilities buildings and residential buildings, acting solely as a general contractor. In 2004, the company expanded its operation into the road infrastructure projects. In 2006, the company changed its legal form to a joint-stock company. On 28 December 2008 (after 20 years in business) it had a successful IPO on the Warsaw Stock Exchange.

At present, with over thirty-five years of practice, the company has completed about 1000 investment projects, including industrial, commercial, engineering and road, residential and public utility construction. The MIRBUD Capital Group employs more than 1200 people (mostly certified construction engineers) including highly qualified engineering staff specialised in various construction segments. Modern machinery allowing performance of most works based on own resources is another asset of the Company.

In recent years, the MIRBUD S.A./ KOBYLARNIA S.A. consortium has successfully completed the construction of the following sections: A1 and A18 motorways, S1, S3, S5, S6 and S11

expressways, as well as many ring roads and sections of national and regional roads.

Further diversification of revenue sources for the MIRBUD Group is provided by JHM DEVELOPMENT S.A. and MARYWILSKA 44 Sp. z o.o. The first company is a rapidly growing developer, which performs projects across the country, focusing on large cities, such as Gdańsk, Łódź, Katowice, Poznań and Bydgoszcz, as well as several smaller ones. MARYWILSKA 44 is one of the largest commercial facilities in Warsaw, visited by over 5 million customers per year. Other activities of the company include lease of commercial space in its Warehouse and Logistic Park in Ostróda.

The key construction contracts performed in 2022:

- design and construction of the S74 expressway, Przełom/Mniów-Kielce section;
- design and construction of the S10 expressway, Bydgoszcz-Toruń section;
- redevelopment of the national road no. 91, Terespol-Stolno section;
- construction of the S6 road Koszalin-Słupsk;
- construction of a service facility “Kraków Music Centre”;
- construction of a school within a Chrzanów estate in Bemowo district,

- Warsaw;
- enlargement of armament production plant for Polska Grupa Zbrojeniowa PIT RADWAR;
- other numerous projects for construction or modernization of expressways, regional or national roads in Poland.

In 2022, the MIRBUD Group notched up revenue of PLN 3.3 billion, which denotes a 32% growth year-to-year. It is a record result in the Group’s history. All sales the MIRBUD Group generated on the domestic market.

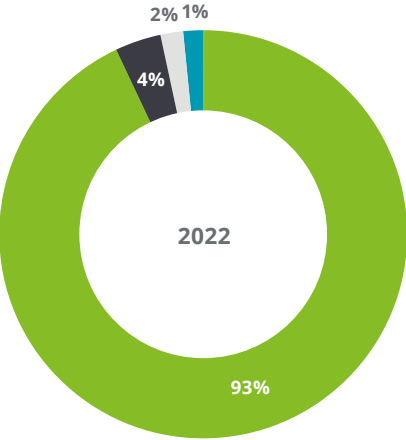
In 2022, its EBIT amounted to PLN 178 million and increased by 2.2% year-to-year. The Group generated a net profit of PLN 119.2 million, 6.9 % lower than in 2021. The net debt in 2022 approximated PLN 1 billion and increased by 12.5% year-to-year.



MIRBUD S.A.: Construction of the Plock’s Stadium named after Kazimierz Górski

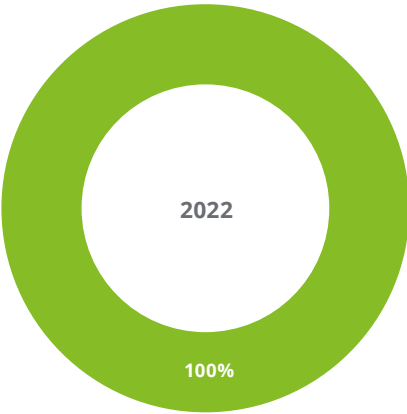
Basic data (PLN'000)	2022	2021	2020	% change '22 vs '21
Assets				
Non-current assets	729 720	714 745	677 902	2.1%
Current assets	1 518 326	1 325 860	861 227	14.5%
Total assets	2 248 046	2 040 605	1 539 129	10.2%
Equity and liabilities				
Equity	681 989	582 281	461 610	17.1%
Provisions for liabilities	12 030	11 631	11 774	3.4%
Long-term liabilities, including provision for deferred tax	641 166	662 225	601 434	-3.2%
Short-term liabilities, including short-term accruals	912 861	734 468	464 311	24.3%
Total equity and liabilities	2 248 046	1 990 605	1 539 129	12.9%
Profit and Loss Account				
Revenue	3 319 329	2 505 568	1 242 903	32.5%
Domestic sales	3 319 329	2 505 568	1 242 903	32.5%
Exports	0	0	0	0.0%
Construction operations	3 088 477	2 245 136	1 079 993	37.6%
Other operations	230 852	260 432	162 910	-11.4%
EBIDTA	194 439	187 903	98 406	3.5%
EBIT	178 372	174 474	84 409	2.2%
Net profit/loss	119 195	128 010	58 193	-6.9%
Other data				
Net debt	1 058 497	940 548	788 522	12.5%
Debt/Balance sheet total	69.7%	69.0%	70.0%	0.9%
Capital expenditure/ Revenue	0.22%	0.11%	0.78%	88.0%
Market capitalisation	412 849	360 555	307 343	14.5%

Sales by type in 2022



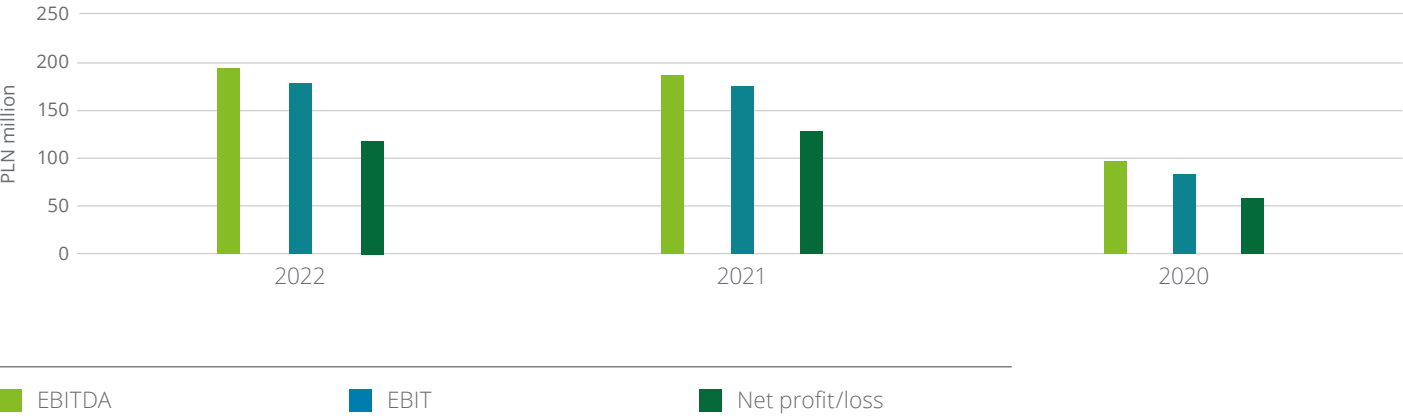
- Construction and installation
- Property development
- Investment property lease
- Fairs and exhibitions

Sales by geography in 2022



- Domestic sales
- Foreign sales

EBITDA, EBIT, and net profit/loss for 2022 - 2020



- EBITDA
- EBIT
- Net profit/loss

Unibep Group



The history of the Unibep Group goes back nearly 75 years, when Budowlane Przedsiębiorstwo Powiatowe in Bielsk Podlaski was established. It operated as a state-owned enterprise until 1998 when it was transformed into a limited liability company, and in 2006 into a joint stock company. In 2008, Unibep S.A. made its debut on the Warsaw Stock Exchange.

Unibep S.A. is currently one of the top companies in the construction industry in the country and the largest Polish exporter of construction services. The Unibep Group's operations are diversified, it operates in various segments of the construction industry. It acts as a general contractor for building construction, and it operates in the energy and industrial construction (since December 2021). It constructs roads and engineering facilities within the broadly understood infrastructure, mainly in north-eastern Poland, and owns one of the largest modular building production plants in Poland (Unihouse S.A.). Further, it carries out developer activities (Unidevelopment S.A.) in Warsaw, Poznań, Trójmiasto and Radom. The Unibep's decision to establish its energy and industrial construction segment was a response to the needs of the market to transform the Polish energy sector. In 2022, Unibep S.A. - because of the war in Ukraine- has suspended its operation in the eastern markets, but there is a representative office of the company in Lviv, while one contract is currently being executed in Belarus - enlargement of the Polish Embassy in Minsk with the State Treasury as the investor.

The Unibep Group's core business is general construction. Construction of buildings accounts for approximately 44% of its total revenues in 2022. This includes, among others, the Academy of Music in Bydgoszcz, several investments related to

national defence and housing estates in major cities in Poland.

The next highest revenue-generating segment is infrastructure, which accounts for 20% of revenue. This segment of the Unibep Group's business is bound to grow thanks to major infrastructure investments in eastern Poland. In 2022, Unibep completed the construction of the S61 road, which is part of the international Via Baltic route.

The Unibep Group meets its business objectives with respect for the environment and for future generations while optimally balancing its business operations. The Group seeks to minimise the impact of investments on the environment when carrying out a particular construction project. Each project is implemented based on environmental decisions, but also on internally established procedures to ensure environmentally safe conditions for construction work.

Unidevelopment S.A., a property development company in the Unibep Group, operates mainly within multifamily housing market. In 2022, it concluded 635 development contracts. It has also expanded its operations to the Tricity market, where it has started preparing for its first development project. The Group, with its real estate portfolio, is prepared for the construction of approximately 5,000 flats.

Throughout 2022, in the energy and industrial construction segment, the Group secured more than a dozen orders and obtained sales worth PLN 312.2 million, representing 13% of its revenue. The order book for 2023 and onwards currently amounts to approximately PLN 980 million, and the most important contracts include the contract made with Mondi Warsaw

for the redevelopment and extension of a warehouse and production facility in Mszczonów and Viessmann Technika Grzewcza for the construction of a heat pump production plant in Legnica.

The remaining 15% of its revenue comes from modular construction. Unihouse S.A. (an independent company since 2019) has ranked among top suppliers of this type of technology in Europe. So far, the key market in which Unihouse S.A. operates is Norway. However, revenues from this market will gradually be replaced by increased sales on the promising German and Polish markets. It is worth adding that the products of Unihouse S.A. are part of a worldwide trend for development of ecological construction, as multi-family buildings are made in modular timber technology. The Unibep Group is ready to benefit from the European Green Deal, a programme to support green and energy-efficient construction.

Almost 91% of all revenues are generated in Poland. The remaining 9% comes from the Unibep Group's foreign operations. The Group is continually pursuing active acquisitions in various construction segments.

The Unibep Group generated revenues of more than PLN 2.3 billion at the end of 2022, an increase of 31.8% compared with 2021. The level of revenues generated is stable and since 2017 has had a clear upward trend. At the end of 2022, EBIT stood at PLN 63.8 million and net profit PLN 31.9 million. The contracts signed by the Unibep Group in 2022 includes:

- construction of a campus for the Academy of Music in Bydgoszcz;
- construction of a storage and production facility in Tuszyn;
- "design and construction of the ring road around Bielsko Podlaskie through the national road no. 66 on the section from the existing DK19 to the existing DK66";
- implementation of the first stage of the "Solfast Park" project on the Norwegian market using modular technology.

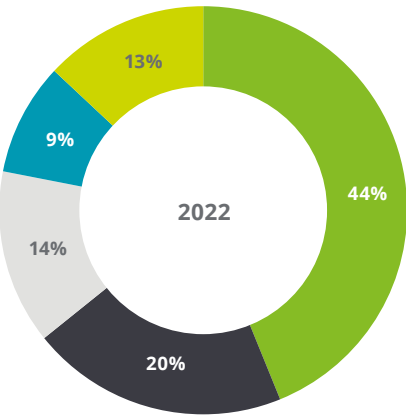
In May 2023, Dariusz Blocher became a new CEO of Unibep Group. The current structure and composition of the larger, 6-member management board allow the company to operate even more efficiently, creating better conditions to fully exploit market opportunities and successfully face challenges.



UNIBEP Group: S61 expressway, Szczuczyn - Elk South section

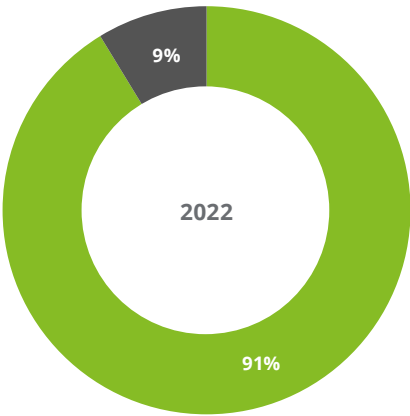
Basic data (PLN'000)	2022	2021	2020	% change '22 vs '21
Assets				
Non-current assets	401 088	331 801	294 404	20.9%
Current assets	1 412 115	1 203 682	932 919	17.3%
Non-current assets held for sale	1 813 203	1 535 484	1 227 323	18.1%
Total assets				
Equity and liabilities	383 954	371 993	330 736	3.2%
Equity	308 852	235 167	189 842	31.3%
Provisions for liabilities	233 537	210 802	163 637	10.8%
Long-term liabilities, including provision for deferred tax	886 859	717 521	543 108	23.6%
Short-term liabilities, including short-term accruals	1 813 203	1 535 484	1 227 323	18.1%
Total equity and liabilities				
Profit and Loss Account				
Revenue	2 058 937	1 381 276	1 238 721	49.1%
Domestic sales	199 375	332 742	443 616	-40.1%
Exports	1 926 314	1 429 109	1 440 816	34.8%
Construction operations	331 998	284 909	241 521	16.5%
Other operations	89 333	77 069	78 285	15.9%
EBITDA	63 751	55 111	59 792	15.7%
EBIT	31 861	42 113	37 153	-24.3%
Net profit/loss				
Other data	977 533	644 273	431 945	51.7%
Net debt	78.8%	75.8%	73.1%	4.0%
Debt/Balance sheet total	2.12%	2.21%	1.01%	-4.3%
Capital expenditure/ Revenue	287 800	361 228	291 086	-20.3%
Market capitalisation				

Sales by type in 2022



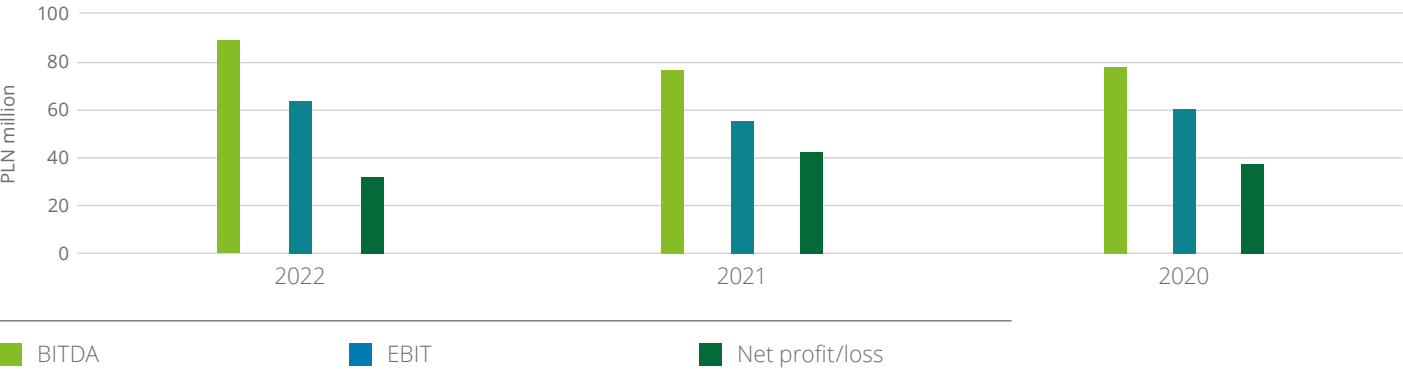
- Construction and installation
- Property development
- Investment property lease
- Fairs and exhibitions
- Energy and industrial construction

Sales by geography in 2022



- Domestic sales
- Foreign sales

EBITDA, EBIT, and net profit/loss for 2022 - 2020



- BITDA
- EBIT
- Net profit/loss

GOLDBECK



GOLDBECK in Poland is part of the international GOLDBECK Group, one of the largest construction companies in Europe, still managed to this day by its founders, the Goldbeck family.

The company has been present on the Polish market since 1997. Its operating strategy is based on decentralisation. Currently GOLDBECK has general construction branches in Poznań, Wrocław, Łódź and Kraków. Their plants manufacturing construction elements are located in Łuźmierz/Łódź, Toruń and Rakowice Małe.

During the 26 years of its operation in Poland, GOLDBECK has delivered to its clients more than 600 projects, including production and logistics facilities, multi-storey car parks, office buildings. The area of completed facilities exceeds 11 million m².

GOLDBECK offers its clients innovative and comprehensive services in the Design & Build formula. It provides a comprehensive service for the entire process of constructing a building from the design stage all the way to obtaining an occupancy permit. The entire process is carried out

by the GOLDBECK's own team, so that delivery times are reduced, communication is optimised, and the client has a single partner.

The GOLDBECK's philosophy is to make maximum use of prefabricated elements for building construction, which are manufactured in their own plants. This moves the lead time away from the construction site to modern, well-equipped production facilities. The quality of the construction elements is higher, which has a significant impact on the safety of use as well as durability of the buildings. GOLDBECK provides its clients with high technical quality of buildings, high functionality, and flexibility. The GOLDBECK system eliminates installation errors to a minimum, which reduces the costs and accelerates project execution.

Challenges that lie ahead of GOLDBECK include implementing new products - multi-storey car parks, modular housing construction, further digitisation of processes and sustainable construction.

During the reviewed period, the Group recorded an increase in revenue from sales of products and services compared with

the previous period in which it notched up PLN 1.6 billion in sales revenue. Indeed, the net sales revenue amounted to nearly PLN 2.1 billion in the current period, an increase of approximately 38.5%. The company closed the financial year with a net profit of PLN 184.5 million.

The company renders its services primarily in the domestic market, with a share of more than 95%. The company is planning to continue its operation for the upcoming financial year. In fact, according to Robert Gabrysiak, the GOLDBECK Group's CEO, the Group seeks to strengthen its market position. In addition, the Company aims to conclude as many contracts as possible while maintaining profitability and a high level of customer satisfaction.



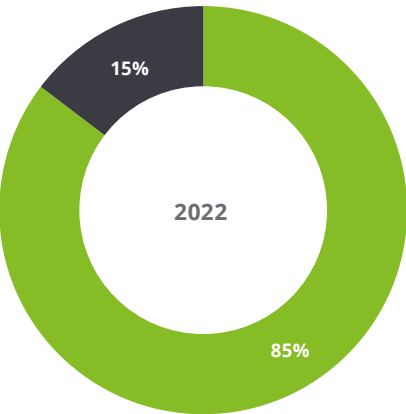
GOLDBECK: OTTO facility, Iłowa



GOLDBECK: Multi-storey car park for Medical University in Lublin

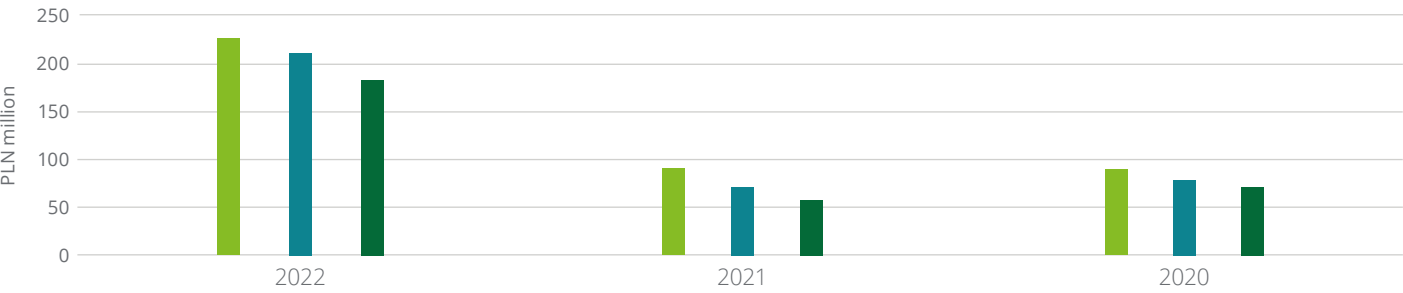
Basic data (PLN'000)	2022	2021	2020
Assets			
Non-current assets	568 296	165 475	140 488
Current assets	830 236	863 606	683 758
Total assets	1 398 532	1 029 082	824 246
Equity and liabilities			
Equity	764 836	580 287	521 952
Provisions for liabilities	14 699	13 193	7 384
Long-term liabilities, including provision for deferred tax	12 678	18 325	3 868
Short-term liabilities, including short-term accruals	606 318	417 276	291 043
Total equity and liabilities	1 398 532	1 029 082	824 247
Profit and Loss Account			
Revenue	2 157 725	1 558 229	995 481
Domestic sales	1 841 206	1 403 623	837 580
Exports	316 519	154 606	157 902
Construction operations	2 156 561	1 557 068	994 720
Other operations	1 164	1 162	761
EBIDTA	227 406	90 269	90 664
EBIT	212 615	72 324	78 508
Net profit/loss	184 550	58 335	71 892
Other data			
Debt/Balance sheet total	45.3%	43.6%	36.7%
Capital expenditure/ Revenue	2.0%	1.5%	1.2%

Sales by geography in 2022



- Domestic sales
- Foreign sales

EBITDA, EBIT, and net profit/loss for 2022-2020



- EBITDA
- EBIT
- Net profit/loss

Kajima Poland



Kajima Poland is part of the international construction corporation. Its portfolio includes more than 130 facilities completed for renowned Polish and international brands. The core business of the company is general contracting in the design & build formula. Kajima Poland also offers design services (also in BIM technology), budgeting, technical support in the selection of investment locations, as well as supervision over BREEAM, LEED and WELL certifications. In addition, the company's advantage is short construction times, as well as carrying out expansions of operating facilities without disrupting their production or logistics activities.

Kajima Poland is building its strong market position in line with sustainability guidelines. It has been increasingly committed year by year to the three pillars

in the ESG area: environmental, social, and governance. It evaluates its activities within this area on a regular basis using the ISO 14001 system and internationally recognised EcoVadis platform. Kajima Poland, in line with the Japanese DNA of its organisation, and the principles of social responsibility, builds with all its business partners long-lasting and stable relationships based on respect and recognition of mutual interests.

In 2022, Kajima Poland completed a number of facilities for the logistics and industrial sectors. These included Panattoni Park Ruda Śląska III (Facility A, Facility B), P3 Błonie Park (Facility DC17), 7R Park Beskid II (Facility DC5), the expansion of the Nestle Purina production plant in Nowa Wieś Wrocławska and EQT Exeter Park Świebodzin (Obi Facility).

The Company recorded a 50.2% increase in revenue compared with the previous year, reaching PLN 1.8 billion at the end of 2022. Its EBIT for 2022 was PLN 75.8 million compared with PLN 126.1 million in 2021, a decrease of almost 40%. EBITDA amounted to PLN 76.2 million in 2022, down by more than 40% compared with 2021. The net result for 2022, on the other hand, stood at PLN 50.2 million, down by 39.5% vs. the previous year.



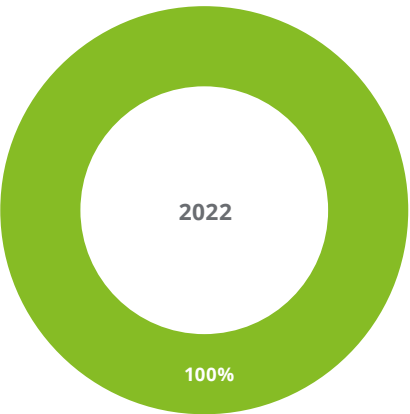
Kajima Poland: Panattoni Park Ruda Śląska III



Kajima Poland: 7R Park Łódź East I

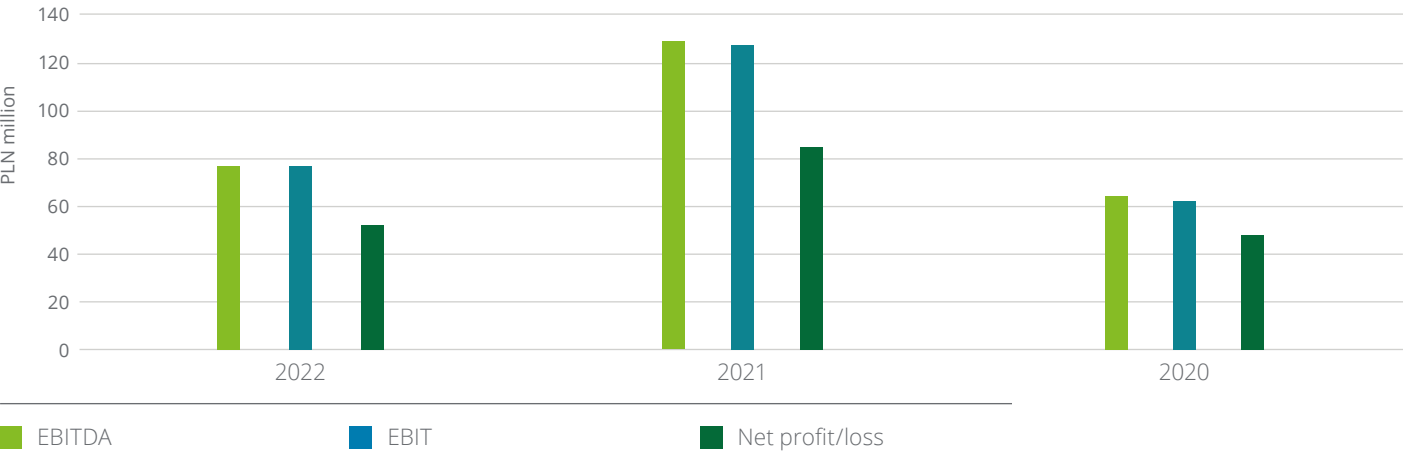
Basic data (PLN'000)	2022	2021	2020	% change '22 vs '21
Assets				
Non-current assets	23 956	12 867	22 670	86.2%
Current assets	805 484	650 538	529 647	23.8%
Total assets	829 440	663 405	552 317	25.0%
Equity and liabilities				
Equity	300 009	249 944	183 982	20.0%
Provisions for liabilities	17 253	13 725	14 761	25.7%
Long-term liabilities, including provision for deferred tax	68 325	53 876	48 742	26.8%
Short-term liabilities, including short-term accruals	443 853	345 859	304 832	28.3%
Total equity and liabilities	829 440	663 405	552 317	25.0%
Profit and Loss Account				
Revenue	1 802 512	1 200 245	879 309	50.2%
Domestic sales	1 802 512	1 200 245	879 309	50.2%
Exports	0	0	0	0.0%
Construction operations	n/d	n/d	n/d	n/d
Other operations	n/d	n/d	n/d	n/d
EBITDA	76 227	127 991	62 770	-40.4%
EBIT	75 784	126 083	61 063	-39.9%
Net profit/loss	50 224	82 990	47 103	-39.5%
Other data				
Net debt	315 515	301 708	149 911	4.6%
Debt/Balance sheet total	63.8%	62.3%	66.7%	2.4%
Capital expenditure/ Revenue	0.02%	0.06%	0.06%	-58.9%

Sales by geography in 2022



- Domestic sales
- Foreign sales

EBITDA, EBIT, and net profit/loss for 2022 - 2020



Intercor

Przedsiębiorstwo Usług Technicznych “INTERCOR” Sp. z o.o. has been operating on the market since 1990. The company originated from the student environment and took on its characteristics, such as creativity, dynamism, and ability to take risk. Initially, the company's activities were limited to the provision of anti-corrosion services and minor finishing work and focused on the local market. However, the company's dynamic growth allowed it to expand nationwide, increasing employment several times and expanding its service portfolio.

At present, Przedsiębiorstwo Usług Technicznych “INTERCOR” Sp. z o.o. has in its offering comprehensive construction services and repairs of road and railway bridges and viaducts, single-span and multi-span bridges, arched bridges, lattice bridges, flyovers, footbridges for pedestrians and special structures. By increasing its experience, improving the skills of its staff, and cooperating with companies introducing new technologies and materials to the construction market, the company can take on the most difficult tasks and requirements set by the investor in the field of bridge construction. The company is one of the top players in the road and railway infrastructure construction market.

The main object of its activity is comprehensive delivery of services such as construction, modernisation and repair of road and railway systems with associated infrastructure, provision of rehabilitation services of railway lines by restoring them to their original parameters– acting as a general contractor or leader of consortium of contractors in case of complex and multi-disciplinary projects. Other areas of its activity include the execution and repair of steel structures and services employing their construction equipment. All works including supply and installation are carried out by its own team of qualified employees in collaboration with reputable suppliers, using specialised equipment and machinery, which guarantees timely performance of work and its high quality. By offering comprehensive services, the Company has positioned itself as an independent contractor for construction contracts.

In 2022, the Company realized sales revenues 36% higher than in a previous year, which amounted to PLN 1.7 billion. The highest revenues came from the sale of construction services, almost 100%. The company ended 2022 with a profit of nearly PLN 151.5 million. EBIT in 2022 was positive and stood at PLN 49.7.5 million.

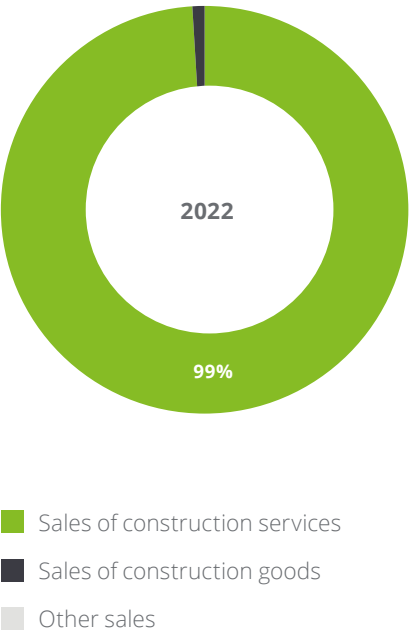
The company renders its services primarily for public entities. In 2022, PUT “Intercor” was awarded 4 contracts out of 23 tender proceedings, both in road and railway construction, the key ones are listed below:

- signing a contract for the “Design and construction of the S19 expressway, Babica junction – Jawornik section, length of approx. 11.6 km”
- signing a contract for the “Design and construction of the S10 expressway, Bydgoszcz - Toruń section”
- signing a contract for the “Design and construction of the S61 expressway, Ostrów Mazowiecka – Szczuczyn, Łomża West - Kolno junction section, length of approx. 12.9 km”;
- signing of a contract for “Refurbishment of the steel, railway, three-span viaduct of railway line no. 65 in the area of operation of the Sędziszów Road Section”.

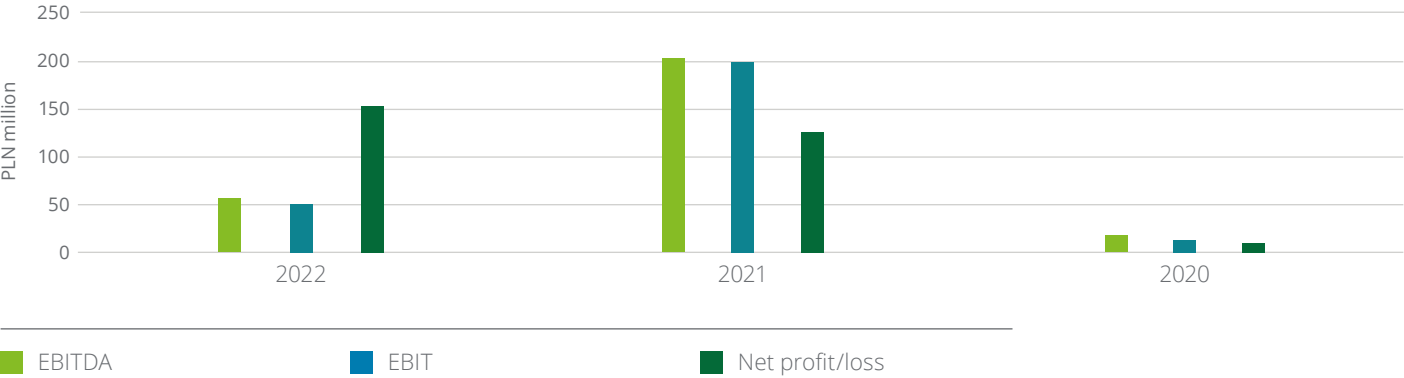
As of the date of this report, the company has the book of orders based on signed contracts allowing it to carry out work until 2027.

Basic data (PLN’000)	2022	2021	2020	% change ‘22 vs ‘21
Assets				
Non-current assets	30 304	27 539	29 679	10.0%
Current assets	789 697	734 950	503 693	7.4%
Total assets	820 002	762 489	533 372	7.5%
Equity and liabilities				
Equity	315 932	300 890	175 898	5.0%
Provisions for liabilities	1 341	1 307	937	2.6%
Long-term liabilities, including provision for deferred tax	13 839	12 340	6 079	12.1%
Short-term liabilities, including short-term accruals	488 889	447 952	350 457	9.1%
Total equity and liabilities	820 002	762 489	533 372	7.5%
Profit and Loss Account				
Revenue	1 683 229	1 237 895	803 534	36.0%
- including change in the balance of products	32 980	20 797	-132 150	58.6%
Domestic sales	brak danych	brak danych	brak danych	brak danych
Exports	brak danych	brak danych	brak danych	brak danych
Construction operations	1 634 495	1 210 355	914 624	35.0%
Other operations	15 754	6 743	21 060	133.7%
EBIDTA	55 108	202 407	16 049	-72.8%
EBIT	49 726	197 445	11 470	-74.8%
Net profit/loss	151 454	124 992	8 604	21.2%
Other data				
Net debt	256 881	172 802	175 458	48.7%
Debt/Balance sheet total	61.5%	60.5%	67.0%	1.5%
Capital expenditure/ Revenue	0.5%	0.4%	0.3%	4.5%

Sales by type in 2022



EBITDA, EBIT, and net profit/loss for 2022 - 2020



Pekabex



The company was founded in 1972 as Poznański Kombinat Budowy Domów. In 1991 it was transformed into a company wholly owned by the State Treasury, operating under the name of Poznańska Korporacja Budowlana Pekabex S.A. On 30 December 1991, the Company was registered in section “B” of the Commercial Register maintained by the District Court in Poznań, and subsequently into the National Court Register on 29 April 2002.

The Group has five production plants in Poland and one in Germany and has branches outside Poland - branches in Sweden and Denmark owned by Pekabex Bet S.A. and a branch in Germany owned by Pekabex Pref S.A. The Group offers comprehensive services in the field of prefabricated concrete structures: design, production, delivery, and installation of

prefabricated units as well as reinforced and prestressed concrete elements.

In addition, the Group acts as a general contractor for construction contracts mainly in the field of buildings and facilities construction. The Group also has a strong presence on the housing market cooperating in this regard with leading development companies in Poland and Scandinavian countries. The company growing its property development business carries out investments using special purpose vehicles in Poland and Germany. Since 8 July 2015, Pekabex S.A. has been listed on the main market of the Warsaw Stock Exchange in the continuous trading system under the abbreviated name of “PEKABEX” and the designation “PBX”.

In 2021, Pekabex notched up revenue from its core operating activities of PLN 1.7 billion, recording an increase in sales of 12% compared with a previous year. The Group has highly diversified sales revenue structure. 62% comes from the contracts for prefabricated units, 36% from construction services, and 2% includes any other activities, such as production services or implementation of developer’s project.

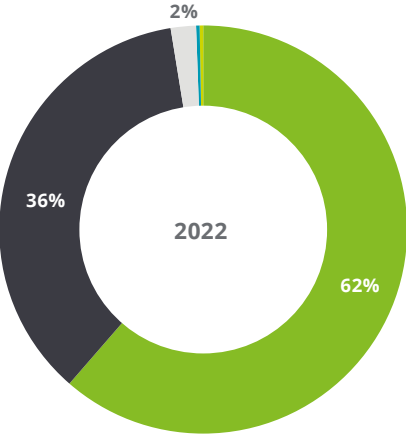
The Company’s EBIT for 2022 exceeded PLN 100 million compared to PLN 57.8 million in 2021, which means an increase of more than 73%. EBITDA amounted to PLN 127.7 million in 2022 and increased by more than 51% compared with 2021. The net profit was at PLN 67.3 million in 2022, up by 66% on a previous year.



Basic data (PLN'000)	2022	2021	2020	% change '22 vs '21
Assets				
Non-current assets	460 718	452 810	420 445	1.7%
Current assets	864 192	767 529	484 919	12.6%
Total assets	1 324 910	1 220 339	905 364	8.6%
Equity and liabilities				
Equity	482 495	405 622	361 721	19.0%
Provisions for liabilities	53 846	54 214	46 141	-0.7%
Long-term liabilities, including provision for deferred tax	199 286	208 841	197 142	-4.6%
Short-term liabilities, including short-term accruals	589 283	551 662	300 360	6.8%
Total equity and liabilities	1 324 910	1 220 339	905 364	8.6%
Profit and Loss Account				
Revenue	1 677 945	1 504 862	952 327	11.5%
Domestic sales	1 233 829	1 062 304	738 516	16.1%
Exports	444 116	442 558	213 811	0.4%
Construction operations	1 632 678	1 453 938	913 993	12.3%
Other operations	45 267	50 924	38 334	-21.06%
EBIDTA	127 683	84 492	89 454	51.1%
EBIT	100 013	57 767	69 455	73.1%
Net profit/loss	67 255	40 641	57 900	65.5%
Other data				
Net debt	722 919	700 069	438 846	3.3%
Debt/Balance sheet total	63.5%	66.8%	60.0%	-4.8%
Capital expenditure/ Revenue	0.63%	1.09%	0.71%	-42.0%
Market capitalisation	353 778 *	595 836	419 568	-40.6%

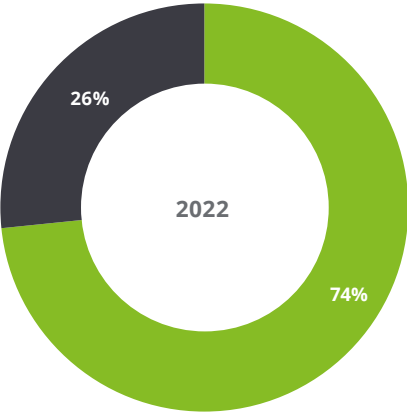
*353 778 share value as of 30 December 2022 14.3= 355 019

Sales by type in 2022



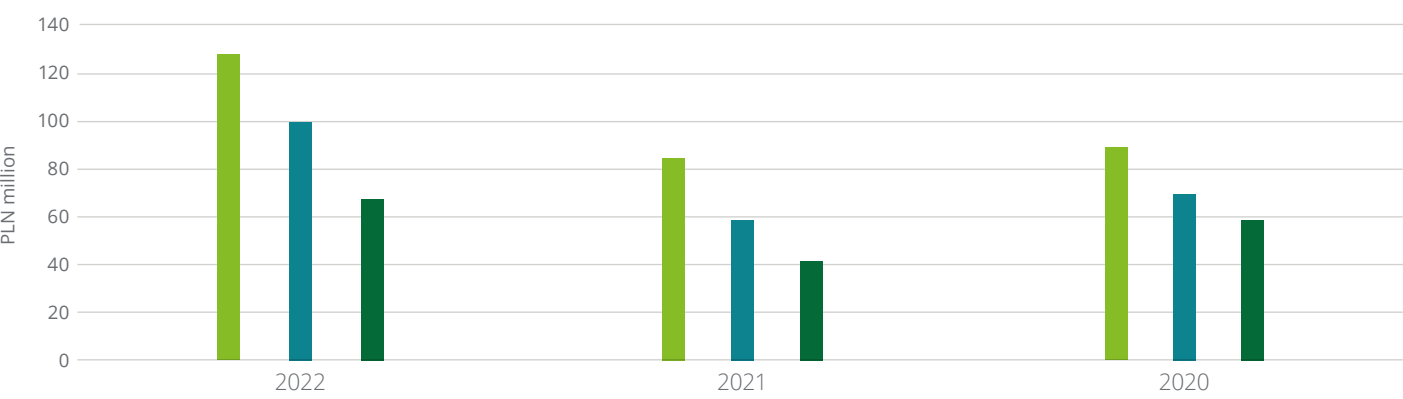
- Contracts - prefabrications
- Contracts - construction services
- Production services
- Property development projects
- Lease

Sales by geography in 2022



- Domestic sales
- Foreign sales

EBITDA, EBIT, and net profit/loss for 2022 - 2020



- EBITDA
- EBIT
- Net profit/loss

Atlas Ward Poland



Atlas Ward Poland, as a leader in the industrial and warehouse construction segment and it is one of the largest general construction contractors in Poland. In its 25-year history the company has completed almost 800 construction projects with a total area of built structures exceeding 5.5 million sq. m. Atlas Ward Poland has 100% Polish capital, and it is managed by its Polish founders. The key competence of the company is comprehensive implementation of construction investments in the design and build model, from consultancy at the concept stage, design, and construction, to technological installations, finishing works and acceptance of delivered facilities. Atlas Ward Poland is also one of the most experienced companies in the market in the construction of facilities and steel structures.

More than 650 construction experts, including 150 specialists from Inplag – the installation company, take care of the quality, timeliness, and safety of the construction projects at every stage of the investment process. Using a unique operating model, Atlas Ward Poland is one of the most efficient general contractors, constructing buildings in record time.

The company favours a modern approach to construction with a focus on optimisation, digitalisation, and sustainable construction. It also places great emphasis on the BIM methodology in both the design and management of the construction process. More than a few dozen engineers and designers at Atlas Ward Poland are currently working in the BIM methodology.

In addition, Atlas Ward Poland has its own BREEAM certification body. The completed facilities are regularly assessed at BREEAM Excellent and BREEAM Outstanding levels. The first industrial facility in Poland with a BREEAM Outstanding certificate was completed by Atlas Ward Poland.

What makes the company stand tall is its speed of response and decision-making, clear customer focus and operational discipline. As a result, Atlas Ward enjoys a broad reference base and a strong portfolio of returning customers.

The company's market position is steadily strengthening. Its dynamic development, evident for example in economic rankings and industry reports, places it among the key market players, recording the highest revenue growth and the fastest increase in value. The installation company – Inplag, affiliated with Atlas Ward Poland is among the TOP 5 installation companies operating in Poland.

In 2022, Atlas Ward earned revenue of PLN 1.7 billion from its core operations, recording a significant increase in sales, i.e. by more than 104% on the previous year. Its EBITDA amounted to PLN 174.1 million in 2022, up 170% on 2021. The net result for 2022, on the other hand, stood at PLN 153.5 million, up by 248% on the previous year.

Over the course of 2022 and 2023, the company has been realizing dozens of investments, including:

- construction of the Persan household chemicals plant, Wróblewice;
- a production and warehouse facility for a car parts manufacturer - Joysonquin Automotive Systems in Wałbrzych;
- a modern DHL DSC E-COM Distribution Center in Gorzów Wielkopolski;
- a 112,000 sq. m logistics and industrial complex - Wrocław Campus 39 for Panattoni;
- a cardboard packaging production plant - Rawibox Międzyrzecze Górne;
- construction of a plant for the production of car battery casings for Minth in Szprotawa;
- a rare earths processing plant for Elemental Strategic Metals Zawiercie;
- high-bay freezers for New Cold in Kutno and Nowy Modlin;
- a 79,000 sq. m warehouse for ECE in Kąty Wrocławskie;
- a steel structure for PGZ Stocznia Wojenna in Gdynia;
- a P3 logistics park in Lesznowola.



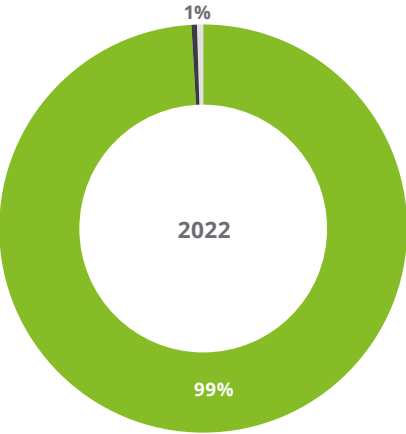
Atlas Ward Polska: GTHR Manufacturing Complex, Wszemirów



Atlas Ward Poland: Persan Polska S.A. – Wróblewice

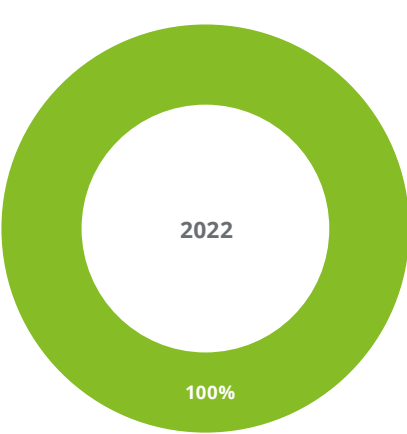
Basic data (PLN'000)	2022	2021	2020	% change '22 vs '21
Assets				
Non-current assets	38 177	24 446	20 938	56.2%
Current assets	718 539	462 459	260 412	55.4%
Total assets	756 716	486 904	281 350	55.4%
Equity and liabilities				
Equity	268 326	114 790	70 685	133.8%
Provisions for liabilities	20 292	2 312	700	777.5%
Long-term liabilities, including provision for deferred tax	8 151	4 465	5 468	82.5%
Short-term liabilities, including short-term accruals	459 947	365 337	204 497	25.9%
Total equity and liabilities	756 716	486 904	281 350	55.4%
Profit and Loss Account				
Revenue	1 674 341	819 161	452 815	104.4%
Domestic sales	1 674 341	819 161	452 812	104.4%
Exports	0	0	3	0.0%
Construction operations	1 662 588	801 663	450 840	0.0%
Other operations	11 752	17 498	1 975	0.0%
EBITDA	174 145	64 497	34 676	170%
EBIT	168 834	60 875	31 959	177.3%
Net profit/loss	153 537	44 105	22 520	248.1%
Other data				
Net debt	391 011	282 086	143 730	38.6%
Debt/Balance sheet total	64.5%	76.4%	74.9%	-15.5%
Capital expenditure/ Revenue	0.52%	0.22%	0.11%	133.4%

Sales by type in 2022



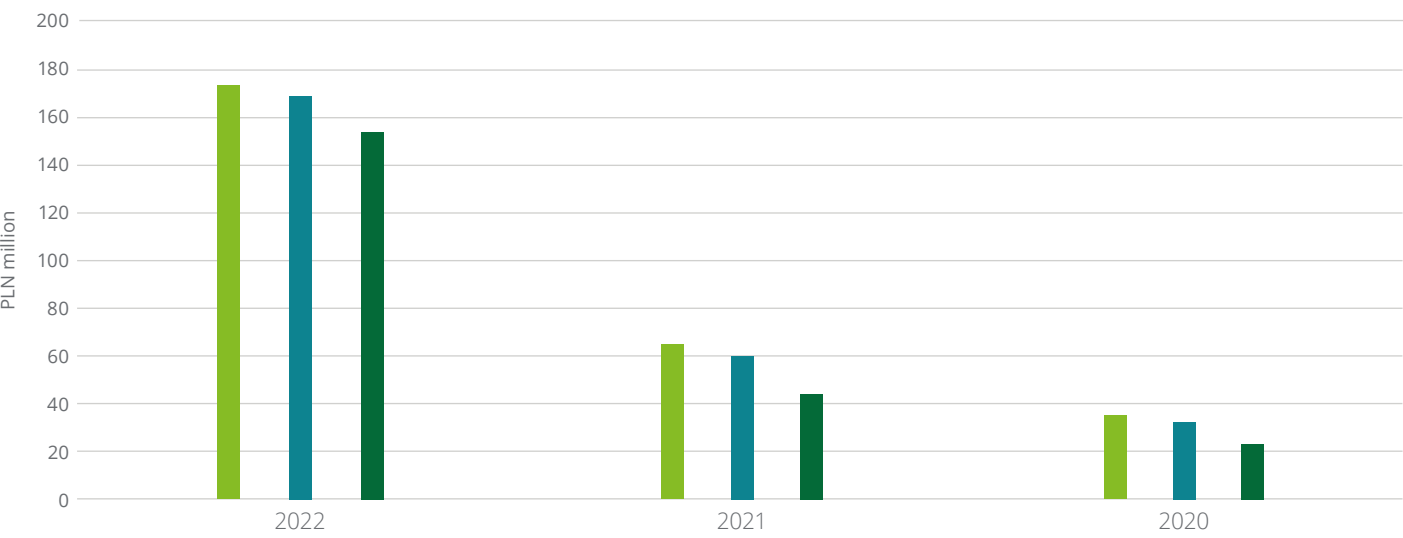
- Construction operations
- Revenue from sale of goods and materials
- Other revenue

Sales by geography in 2022



- Domestic sales
- Foreign sales

EBITDA, EBIT, and net profit/loss for 2022 - 2020



- EBITDA
- EBIT
- Net profit/loss

Mostostal Warszawa Group



Mostostal Warszawa was funded in 1945 and was among the few enterprises that was involved in projects as part of the country's post-war reconstruction. It launched its business operations abroad in 1973. In 1991, the enterprise was converted into a joint-stock company and privatised.

Its IPO on the Warsaw Stock Exchange took place in 1993. At present, Mostostal Warszawa S.A. is the key shareholder of a few businesses included in the Mostostal Warszawa Capital Group. In 1999, the company was merged with the Spanish Acciona Group.

At the end of 2022, the Spanish company Acciona Construcción S.A., which held 62.13% of the shares, remained the main shareholder of Mostostal Warszawa. A considerable interest of 19,13% in the Company's share capital is also held by the Otwarty Fundusz Emerytalny PZU "Złota Jesień" - an open-ended pension fund.

Mostostal Warszawa's operations are divided into two main segments: industrial engineering and general construction.

- The key ongoing investments in 2022 include:
- construction of storage tanks for PERN;
 - combined heat and power plant for Synthos;
 - construction of the S11 Koszalin – Szczecine road;
 - construction of the S19 Rzeszów South – Babica road;
 - construction of the S61 Szczuczyn – Budzisko road;
 - construction of the ring road around Praszki;
 - construction of the B10 hotel and office building;
 - construction of the Ochota Campus for the Psychology Faculty of the University of Warsaw;
 - construction of the Nowa Myśliwska estate in Kraków.

The Mostostal Warszawa's consolidated revenue for 2022 amounted to PLN 1.6 billion and was almost in whole derived from construction activities. The majority of contracts focused on general construction and industrial engineering works.

The revenue earned in 2022 was 23.7% higher than in the preceding year with approx. 97% of total sales revenue generated on the domestic market. The Group ended the year 2022 with a net profit of nearly PLN 19.3 million, thus recording a fall by 22% compared with the previous year. EBIT generated in 2022 was PLN 36.4 million denoting an approx. 8.8% decrease year-over-year.

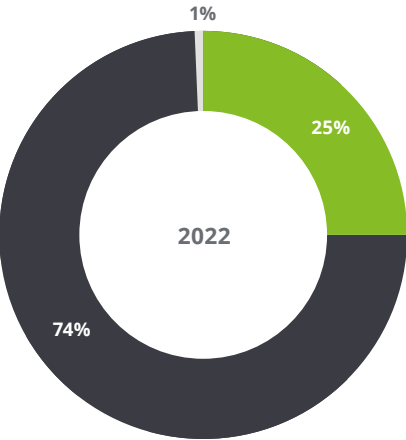
At the end of 2022, the net debt was PLN 736.9 million, which denoted a 22.7% increase year-over-year. The Group's capital expenditure in 2022 reached PLN 31.9 million, up compared with the prior financial year. In 2022, the average headcount in the Mostostal Warszawa Group was over 1,500 and it increased by nearly 2% compared to 2021.

The backlog of Mostostal Warszawa S.A at the end of December 2022 was PLN 3.9 billion and of the Capital Group was PLN 4.1 billion. It includes the contracts from the infrastructure, energy, industrial and general construction sector.



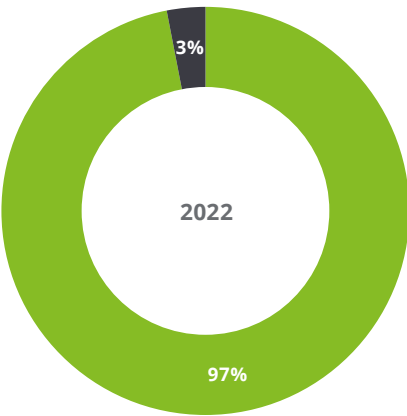
Basic data (PLN'000)	2022	2021	2020	% change '22 vs '21
Assets				
Non-current assets	206 323	130 571	130 705	58.0%
Current assets	832 225	791 580	832 459	5.1%
Total assets	1 038 548	922 151	963 164	12.6%
Equity and liabilities				
Equity	95 974	80 711	56 263	18.9%
Provisions for liabilities	27 660	30 409	28 919	-9.0%
Long-term liabilities, including provision for deferred tax	173 678	86 040	101 175	101.9%
Short-term liabilities, including short-term accruals	741 236	724 991	776 807	2.2%
Total equity and liabilities	1 038 548	922 151	963 164	12.6%
Profit and Loss Account				
Revenue	1 614 337	1 305 030	1 365 481	23.7%
Domestic sales	1 568 305	1 274 272	1 349 305	23.1%
Exports	46 032	30 758	16 176	49.7%
Construction operations	1 605 032	1 288 606	1 355 545	24.6%
Other operations	9 305	16 424	9 936	-43.3%
EBITDA	58 611	57 579	50 570	1.8%
EBIT	36 413	39 905	33 912	-8.8%
Net profit/loss	19 263	24 708	8 080	-22.0%
Other data				
Net debt	736 900	600 679	723 612	22.7%
Debt/Balance sheet total	90.8%	91.2%	94.2%	-0.5%
Capital expenditure/ Revenue	2.0%	0.8%	1.0%	142.6%
Market capitalisation	112 000	129 200	100 800	-13.3%

Sales by type in 2022



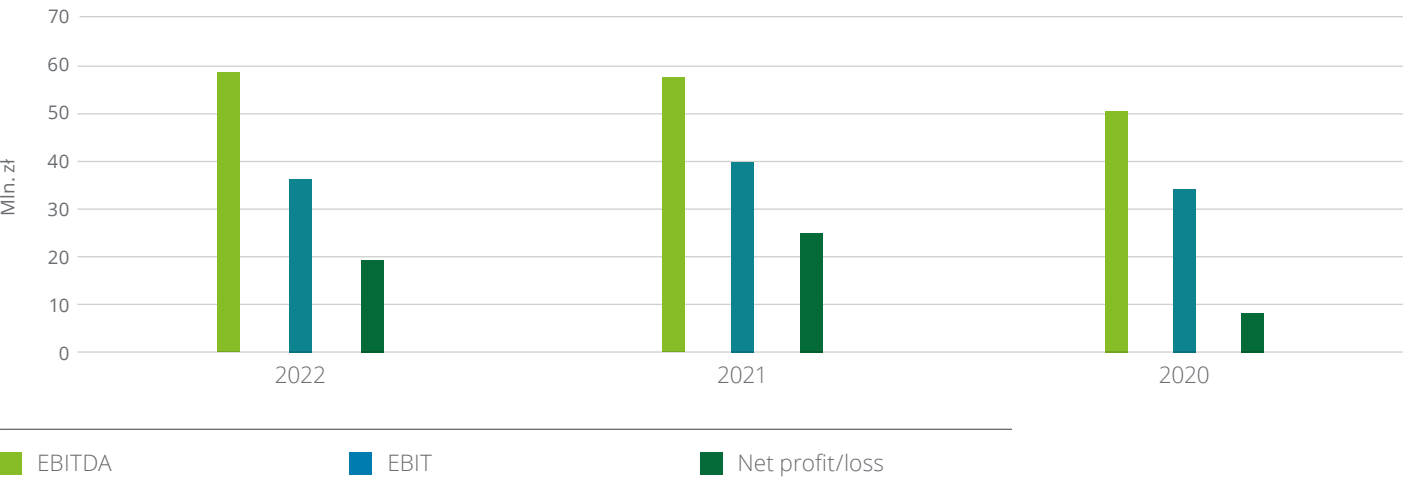
- Industrial and engineering sector
- General construction sector
- Other operations

Sales by geography in 2022



- Domestic sales
- Foreign sales

EBITDA, EBIT, and net profit/loss for 2022 - 2020



Adamietz

Adamietz was founded in 1994, initially as a family-owned, local and specialist company. Over the years, as a result of dynamic growth, it has transformed into a construction company capable of taking on any construction project in Poland and abroad.

Every year, ADAMIETZ, as a result of consistent growth, rises in the industry rankings, expanding its competence in the implementation of construction investments, which is reflected in the increasing turnover of the company. ADAMIETZ's advantage is a comprehensive approach to the implemented investments, professional service, and commitment at every stage of cooperation. The company specialises in, among others, general

construction of buildings for general, industrial, and specialised construction, as well as in the design and production of sandwich panels and cold-formed profiles. Innovation and new technologies have been the driving force behind the company's development since the beginning. The Adamietz Group now relies on a strong manufacturing base on a scale unparalleled in the Polish market.

Adamietz, thanks to its highly qualified and experienced management and engineering staff, its own teams handling reinforced concrete casting and structural works, roof, and wall installations, and cooperating with qualified contractors has become one of the industry leaders. It develops investment projects including warehousing and logistic

buildings, public facilities, complete and complex industrial plants in the 'Design & Build' formula.

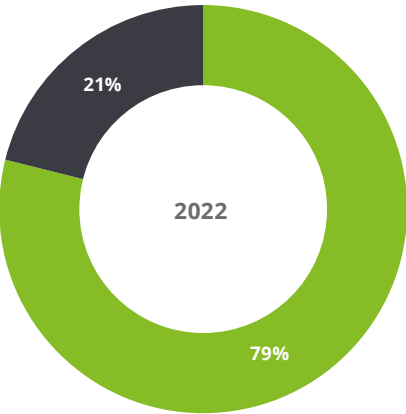
The company recorded a 38.9% increase in revenue compared with the previous year, reaching over PLN 1.5 billion. The majority (75%) of revenue was derived from domestic sales. The Group generated a positive EBIT of PLN 67 million and a net profit of PLN 38.9 million, significantly improving its performance compared with the previous reporting period.



ADAMIETZ: Manufacturing and office building for ifm ecolink in Opole

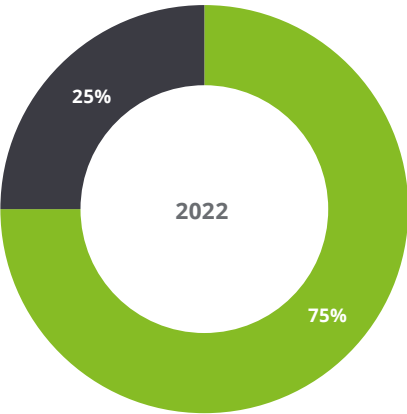
Basic data (PLN'000)	2022	2021	2020	% change '22 vs '21
Assets				
Non-current assets	135 637	113 225	93 455	19.8%
Current assets	461 708	431 619	229 231	7.0%
Total assets	597 345	544 844	322 686	9.6%
Equity and liabilities				
Equity	127 440	91 909	70 191	38.7%
Provisions for liabilities	8 322	9 800	6 076	-15.1%
Long-term liabilities, including provision for deferred tax	51 265	63 424	31 992	-19.2%
Short-term liabilities, including short-term accruals	410 318	379 711	214 426	8.1%
Total equity and liabilities	597 345	544 844	322 686	9.6%
Profit and Loss Account				
Revenue	1 529 662	1 101 004	746 356	38.9%
- including the change in the balance of products and manufacturing cost of products for internal purposes:	-9 935	26 644	-23 927	-137.3%
Domestic sales	1 156 686	586 769	515 806	97.1%
Exports	382 911	487 592	254 477	0.0%
Construction operations	1 216 655	815 038	602 422	0.0%
Other operations	322 942	259 323	167 861	0.0%
EBITDA	75 985	44 179	46 947	72.0%
EBIT	67 143	36 799	40 607	82.5%
Net profit/loss	38 919	22 307	28 015	74.5%
Other data				
Net debt	452 885	445 128	242 564	1.7%
Debt/Balance sheet total	78.7%	83.1%	78.2%	-5.4%
Capital expenditure/ Revenue	0.59%	1.36%	0.62%	-56.3%

Sales by type in 2022



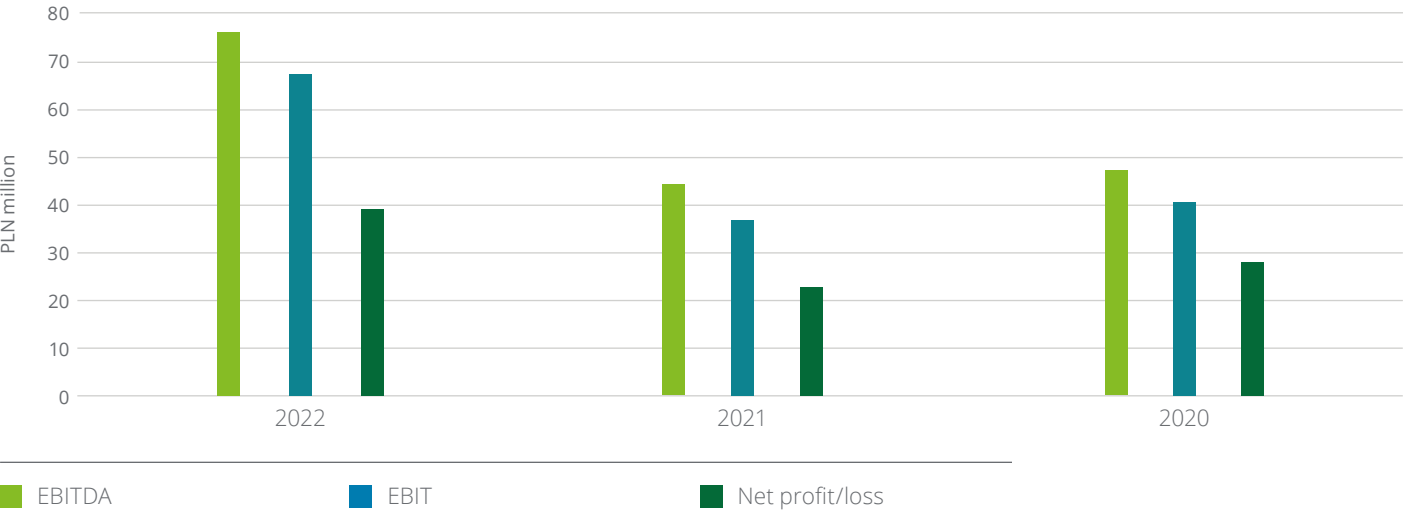
- Construction operations
- Revenue from sale of goods and materials
- Other revenue

Sales by geography in 2022



- Domestic sales
- Foreign sales

EBITDA, EBIT, and net profit/loss for 2022 - 2020



- EBITDA
- EBIT
- Net profit/loss

Trakcja Group



Trakcja is one of the leading businesses in rail, tram and road infrastructure construction in Poland and Lithuania. It hires over 2,000 employees. Its parent company is Trakcja S.A. with the registered office in Warsaw.

In 2008, Trakcja, the Group's parent, had its IPO on the Warsaw Stock Exchange. In 2009 and 2011, Trakcja acquired PRK 7 S.A. and Tiltra Group, which helped the Group expand its operations in Poland and acquire one of the Lithuania's largest construction businesses specialising in infrastructure construction (rail, roads, bridges, tunnels, airports, and seaports) and railway modernisation.

The Group's core business involves end-to-end rail and road infrastructure projects delivered using the Group's qualified staff as well as specialised rail, catenary and road equipment. The Trakcja Group specialises in civil engineering and construction services involving design, construction and modernisation of rail and tram lines, power lines, construction of roads, bridges, viaducts, flyovers, culverts, tunnels, underground passages, retaining walls, roads and accompanying railway and road infrastructure. It also provides general construction works including site preparation before building construction, erection, and modernisation of buildings, as well as installation and finishing works. The Group's offering includes construction of buildings, both for the purposes of the rail infrastructure as well as general-purpose buildings (residential and office buildings) and construction of power engineering and remote-control systems. As at 31 December 2022, the two major shareholders of the

parent entity included PKP PLK S.A. (74.31 % of shares) and the Agency of Industrial Development (16.09 % of shares).

In 2022, the Group generated nearly PLN 1.5 billion in sales revenue, up by approx. 5.4 % year-over-year. The Group's domestic sales increased in 2022 to PLN 917 million. Similarly, foreign sales went up to PLN 585 million and accounted for 39% of total sales — largely due to contracts delivered for the Lithuanian Road Administration. PKP PLK S.A. is the Group's key client on the Polish market and its sales structure is dominated by road works (31%) and rail works (27%).

The Group's capital expenditure stood at PLN 33.2 million. At the end of the financial year, its cash amounted to PLN 97.9 million. As at 31 December 2022, the Group's backlog amounted to PLN 3.096 million. In 2022, the Group entered into construction contracts totalling PLN 1.442 million.

Its selected contracts performed in 2022 include:

- construction works in the area of LCS Łowicz - section Sochaczew – Żychlin and section Placencja – Łowicz Główny under the project named: "Works on E20 railway line";
- design and performance of work under the project to construct Szczecin Metropolitan Railway;
- design and performance of construction works at the railway line E20 - Siedlce-Terespol;
- design and construction work under the project named: "Revitalization of railway line no. 694/157/190/191"

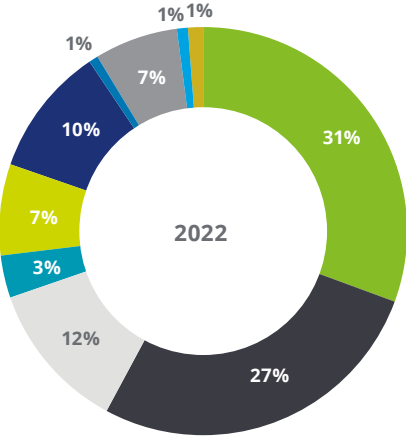
The Group's EBIT for 2022 was PLN -289 million (2021: PLN 22 million). Its net loss for 2022 reached PLN -311.1 million and has continued its negative trend observed since 2018. The biggest impact on the situation was the valuation of the railway contract carried out under the 'design and build' formula, where, after a significant part of the design work and geotechnical studies had been carried out, deviations from the conditions presented by a contracting party in the tender specification were found, resulting in the need to carry out previously unforeseen work and write-downs of goodwill.



Trakcja Group: A part of Via Baltica route: S61 expressway, Elk South - Wysokie section

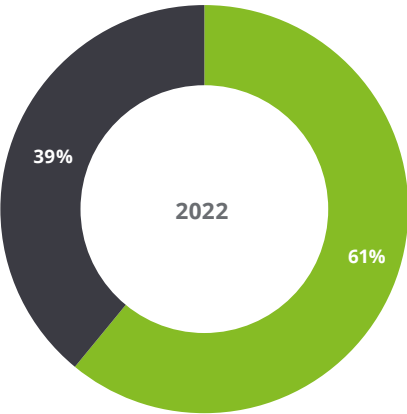
Basic data (PLN'000)	2022	2021	2020	% change '22 vs '21
Assets				
Non-current assets	497 068	560 778	581 319	-11.4%
Current assets	895 351	817 784	896 437	9.5%
Total assets	1 392 419	1 378 562	1 477 756	1.0%
Equity and liabilities				
Equity	210 069	320 100	337 116	-34.4%
Provisions for liabilities	193 311	50 944	75 061	279.5%
Long-term liabilities, including provision for deferred tax	85 738	342 795	319 492	-75.0%
Short-term liabilities, including short-term accruals	903 301	664 723	746 087	35.9%
Total equity and liabilities	1 392 419	1 378 562	1 477 756	1.0%
Profit and Loss Account				
Revenue	1 501 957	1 424 841	1 338 982	5.4%
Domestic sales	916 781	885 662	766 609	3.5%
Exports	585 176	539 179	572 373	8.5%
Construction operations	1 363 471	1 382 977	1 313 043	-1.4%
Other operations	138 486	41 864	25 939	230.8%
EBITDA	-180 629	59 283	-13 700	-404.7%
EBIT	-289 110	22 154	-90 163	-1405.0%
Net profit/loss	-311 078	-11 583	-109 986	2585.6%
Other data				
Net debt	1 084 452	931 516	1 004 462	16.4%
Debt/Balance sheet total	84.9%	76.8%	77.2%	10.6%
Capital expenditure/ Revenue	2.21%	1.99%	1.77%	10.8%
Market capitalisation	528 228	165 986	184 141	218.2%

Sales by type in 2022



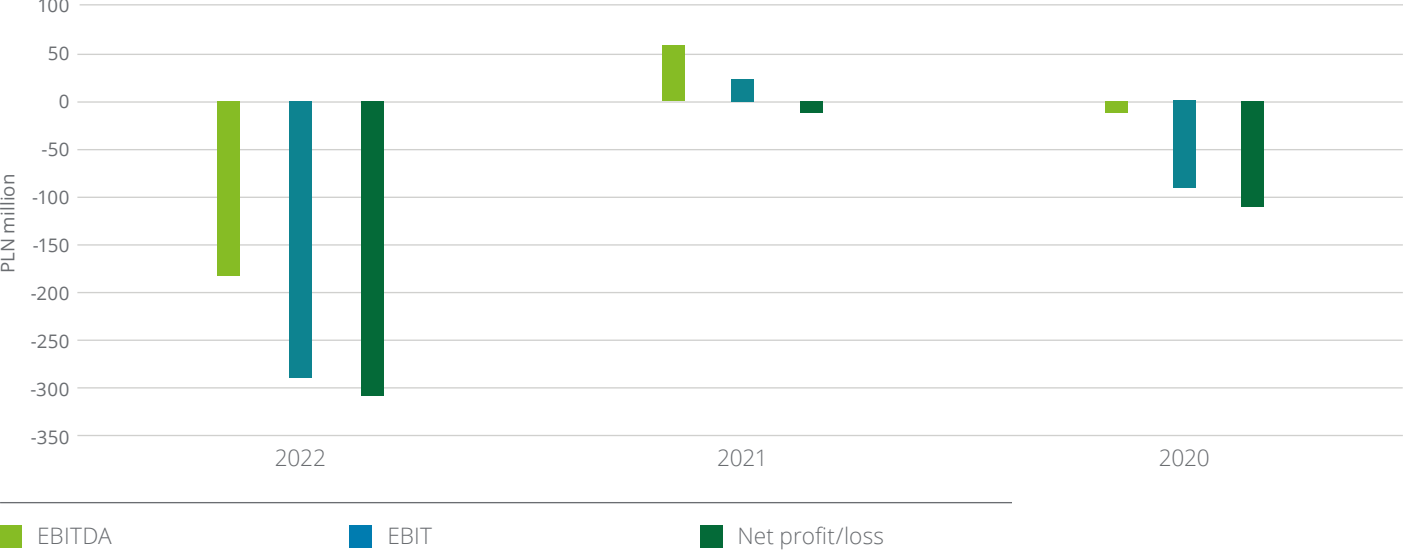
- Rail works
- Road works
- Bridge works
- Building works
- Tram works
- Energy sector works
- Property development
- Other construction works
- Production
- Other activities

Sales by geograpy in 2022



- Domestic sales
- Foreign sales

PEBITDA, EBIT, and net profit/loss for 2022 - 2020



- EBITDA
- EBIT
- Net profit/loss



MIRBUD S.A.: Construction of S1 expressway, Przybędza - Miłówka section (so called Węgierska Górka Bypass)

Annex 1

Corporate responsibility: ESG in the construction sector

ESG in the construction sector

The construction industry is increasingly being called upon by regulations, reporting obligations, and customer requirements to address the social and environmental impacts of their operations. Many European countries have increasingly stringent requirements for constructing any facilities. In addition, further national, EU and global regulations are being introduced on decarbonising construction, calculating the carbon footprint of buildings, and achieving climate neutrality in the sector.

1. Environmental impact of the construction sector

The construction sector is responsible for **37%** of global carbon dioxide emissions and **36%** of global energy consumption. In addition, the developed area is expected to increase by approximately **75%** during the period of 2020-2050¹. Therefore, construction companies should focus more and more on environmental sustainability aspects, aiming to decarbonise projects and achieve **net zero global emissions**

by 2050. In addition, construction has a significant impact on water consumption – it consumes 33% of the world’s water resources², it accounts for 35% of the waste generated in the world³ and 40-50% of global raw material extraction⁴. The development of standards, policies and strategies related to environmental, social and corporate governance issues depends on the specific operations of construction

companies, such as types of building constructed, phases of a construction project, and above all on whether a company is involved in the implementation of new projects or renovation of existing buildings.

2. Regulations affecting the construction sector

Construction companies may be significantly affected by both national and EU regulations and customer and investor expectations regarding the decarbonisation of assets, aiming to fulfil the climate commitments. The most important regulations include: The European Green Deal, the Fit for 55 package, the EU Taxonomy and the CSRD.

The European Green Deal is a key strategic document contributing to

the achievement of the goal of climate neutrality in Europe by 2050. As part of this strategic document, the 27 EU countries have committed to reducing greenhouse gas emissions by at least 55% by 2030, compared to 1990 levels. This legal document sets ambitious climate goals for the construction sector, including:

- the new circular economy action plan (CEAP) of 2020⁵, taking into account the circular economy throughout the life

cycle of a building, digital construction logbooks;

- the Renovation Wave of 2020⁶, a document requiring the Member States to develop and implement long-term renovation strategies. Poland developed its strategy in February 2022⁷.

The Fit for 55 regulatory package is a document consisting of a set of proposals to revise and update EU legislation and implement new initiatives aimed at ensuring

that EU policies are in line with the EU’s climate objectives. Fit for 55 refers to the European Union’s goal of reducing net greenhouse gas emissions by at least 55% by 2030. The aim of the package is to strengthen the EU’s position as a global climate leader and to bring about the transformational changes needed to achieve a climate-neutral Europe by 2050. Planned initiatives affecting the construction industry include the EU emissions trading system, energy taxation, renewable energy and energy efficiency. For the construction sector, the most important regulations include:

- **The Renewable Energy Directive of 2021⁸**, specifying “increasing the level of renewable energy production to 40% by 2030, including the share of renewable energy in buildings to 49%”, “increasing the use of renewable energy in heating and cooling by 1.1 p.p. per year, including heating and cooling of buildings by 2.1 p.p. per year”;
- **The Energy Efficiency Directive of 2021⁹**, specifying the degree of “energy efficiency improvement by 36% for final energy consumption and 39% for primary energy consumption by 2030” and “increase in renovation rate - the need to annually renovate at least 3% of the building area of a public institution, the so-called “Renovation Wave”.

CBAM is a mechanism applicable to the import of selected goods into the European Union. The regulation currently provides for the CBAM mechanism to cover imports of selected goods, such as iron and steel, aluminium, and cement. This regulation will increase the prices of the main construction materials, due to the imposition of taxes on imported products and raw materials necessary for the construction of buildings and will also indirectly increase the prices of construction machinery, scaffolding and

building equipment.

European Union Taxonomy presents a classification system, covering different activities, providing a uniform approach to identifying sustainable economic activities. In the construction sector, the Taxonomy introduces criteria for the renovation and modernisation of facilities, the acquisition and ownership of buildings and new buildings for which the following is required:

- to determine the primary energy demand (PED), specified based on the EP calculated according to the methodology for the designation of energy performance certificates (in the case of new buildings, the primary energy demand should be 10% lower than the threshold set for NZEBs);
- to carry out air tightness and thermal integrity testing for buildings over 5,000 sq. m;
- to calculate the global warming potential for buildings with an area of more than 5,000 sq. m, based on the LCA analysis performed over a test period of 50 years.

CSRD (the Corporate Sustainability Reporting Directive) is part of the corporate sustainability legislative package that aims to make the EU climate neutral by 2050. Its main assumptions are:

- it requires all companies (public and private) with more than 250 employees and meeting certain financial criteria to report on ESG (environmental, social and governance) issues starting in 2025 (for 2024);
- reporting is to be carried out in accordance with a single European ESG reporting standard, which is being developed at EU level by the EFRAG Task Force;
- this will increase the transparency of the sustainability information provided by

companies to stakeholders. Ultimately, the data will be audited in the same way as financial statements.

Construction companies should pay attention to transparency and data collection processes for non-financial matters to prepare for the upcoming ESG reporting obligation. The amount of mandatory non-financial data, also called data on sustainable development, subject to reporting will increase significantly, while the impact of non-financial ESG data on the company’s financial results must be assessed and disclosed. Financial and non-financial reports must be consistent in this regard.

Impact of regulations on the construction sector.

The above-mentioned regulations will have many business implications for the industry, including for the existing and new buildings:

- stricter requirements for new buildings and renovations – the so-called zero-emission standard has been introduced (stricter requirements for maximum primary energy demand for new buildings and buildings undergoing significant renovation);
- accelerating the pace of renovation – minimum energy efficiency standards for existing buildings (the expected public sector renovation of 3% per year of the “worst energy” buildings and gradual increase in the energy classes of the building portfolio);
- systemic tracking of embedded emissions to reduce the carbon footprint of a facility throughout its lifecycle, not just in the operation phase;
- increasing energy costs in terms of investments and use of buildings: the use of fossil fuels (gas, heating oil, coal, and indirectly also district heating) and

- emission-intensive building materials will be by far more expensive due to the introduction of additional carbon taxes, including for imported materials (CBAM regulations);
- requirement to increase oversight over non-financial receipts in the value chain and to provide human and system (IT) resources for the mandatory collection and reporting of non-financial data (CSRD);
 - requirement to conduct ESG impact assessments, ESG and climate risk assessments, climate, resources, biodiversity, social impacts, etc. (CSRD);
 - requirement to count Scope 1, 2 and 3 emissions (per the GHG Protocol) and define a decarbonisation strategy in line with the requirements of the Paris

Agreement and the requirements of investors, customers and regulations (CSRD).



Agnieszka Głowacka
Vice-President of the Management Board, ERBUD GROUP



In order to maintain our position as one of the key players on the market, we constantly invest in the development of our employees, both current and future, through employer branding activities. The broadly understood ESG area is also on the list of our priorities for the coming years, which will be reflected in the transformation of the entire organization and the way construction contracts are performed, thus responding to the growing expectations of all stakeholders.”



ERBUD Group: MOD21 Factory

3. How construction companies should prepare to develop a decarbonisation strategy in line with the 1.5°C

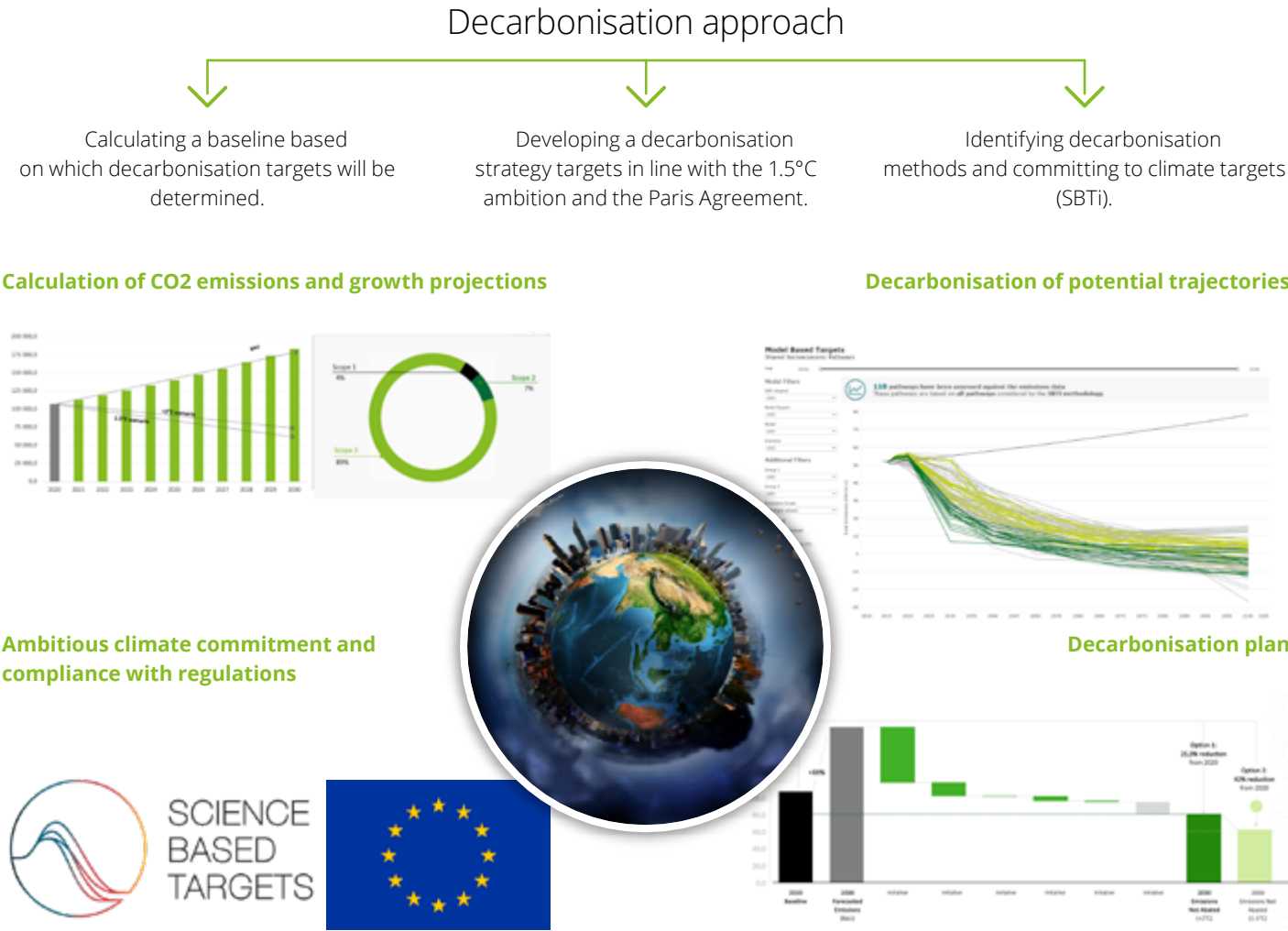
The Corporate Sustainability Reporting Directive CSRD¹⁰ specifies that companies should be required to “disclose any plans to ensure that their business model and business strategy are in line with the transition to a sustainable economy and with the objectives of limiting global warming to 1.5°C in line with the Paris Agreement and achieving climate neutrality by 2050”.

Companies wishing to develop an emissions reduction path, in line with the Paris

Agreement, to limit global warming to 1.5°C by the end of 2100 compared with the level of average temperatures before the pre-industrial era (around 1900), should first determine the sources of greenhouse gas emissions on the basis of their inventory in the organization, define its operational and organizational limits and calculate the carbon footprint within the Scope 1, 2 and 3.

According to the guidelines of the Science-Based Target initiative, companies should

develop their decarbonization goals within the Scope 1, 2 and Scope 3, and then, based on the developed scenario of the company's development – the so-called Business as Usual scenario. Organisations should develop decarbonisation projects and choose a path to achieve the developed decarbonization targets.



4. Initiatives to reduce emissions in relation to the construction project stage

A constructed building impacts the natural environment throughout its life cycle; hence it is extremely important to focus on each stage of the building construction process. Conscious decisions about responsible design should be made from the very first stage of the concept and planning process., through design, construction, operation as well as renovation and possible demolition phases. Currently, the largest share of energy consumption of various types occurs in the operation phase of a building, but with the development of technology and introduction of new legal regulations, energy consumption

in this phase is gradually reduced, which results in a decreasing share of the operational carbon footprint, in favour of the growing importance of the embedded carbon footprint. Therefore it is extremely important to pay attention to how buildings are designed and what materials they are made of. The greatest potential for emission reduction can be achieved in the initial conceptual phase - at the planning stage, because it is possible at that point to take alternative approaches to achieve the desired result of a design, e.g. choosing the right technology for the construction of a building, taking into account

environmental factors, the selection of more environmentally friendly materials, or the design of the facility itself, taking into account, for example, passive house criteria, contributing to the reduction of energy demand. Companies implementing construction projects should focus on implementing the principles of sustainable development both in the process of project implementation and in the process of building construction.

Planning phase and the actions taken at this stage are of the paramount importance in terms of the sustainable

implementation of designs as well as their final impact on the environment. This phase makes it possible to achieve the largest reductions in greenhouse gas emissions (related to the facility's embedded and operational footprint as well as the company's carbon footprint), as all decisions made at this stage affect each subsequent one. In this phase, responsible decisions should be made regarding the selection of an interdisciplinary project team that understands the importance of implementing sustainable solutions and is aware of climate issues, choosing the right location and solutions that should be implemented in the further phases of the design, which will significantly contribute to reducing the carbon footprint and negative environmental impact of both the design and the product understood as a newly constructed building.

Design preparatory phase is mainly related to the well-thought-out and fully conscious design of the building. All actions taken at this stage contribute to the delivery of a “sustainable product”, i.e. designed with its environmental impact in mind throughout its entire life cycle (from the extraction of raw materials necessary for its construction to the end of the building’s life cycle). When designing a building, it is necessary to take into account the best practices based on both the regulations currently required to be met by companies, such as: Technical Conditions¹¹, as well as on voluntary initiatives, e.g. implementation of passive house criteria (directly contributing to the reduction of the building's energy demand), design of a building in present, but focusing on future requirements for buildings, e.g. based on regulations such as the European Green Deal.

At the planning stage, it is necessary to select the appropriate systems in buildings, preferably not using fossil fuels, focusing on obtaining energy from renewable sources (it is necessary to take into account new regulations, e.g. Fit for 55⁸, (stipulating the approximate minimum share of renewable energy in buildings, which is to be 49% from 2030)). In order to shift away from fossil fuels, the implementation of alternative solutions in the design, e.g. heat pumps, should be considered. At the design stage, end-of-life capabilities should be developed, focusing on implementing all possible initiatives that contribute to reducing waste and unused resources. One of the most important aspects of sustainable development is the conscious choice of materials and technological solutions with the environment in mind, as well as the users and neighbours of a designed building, focusing on reducing the quantity of materials used.

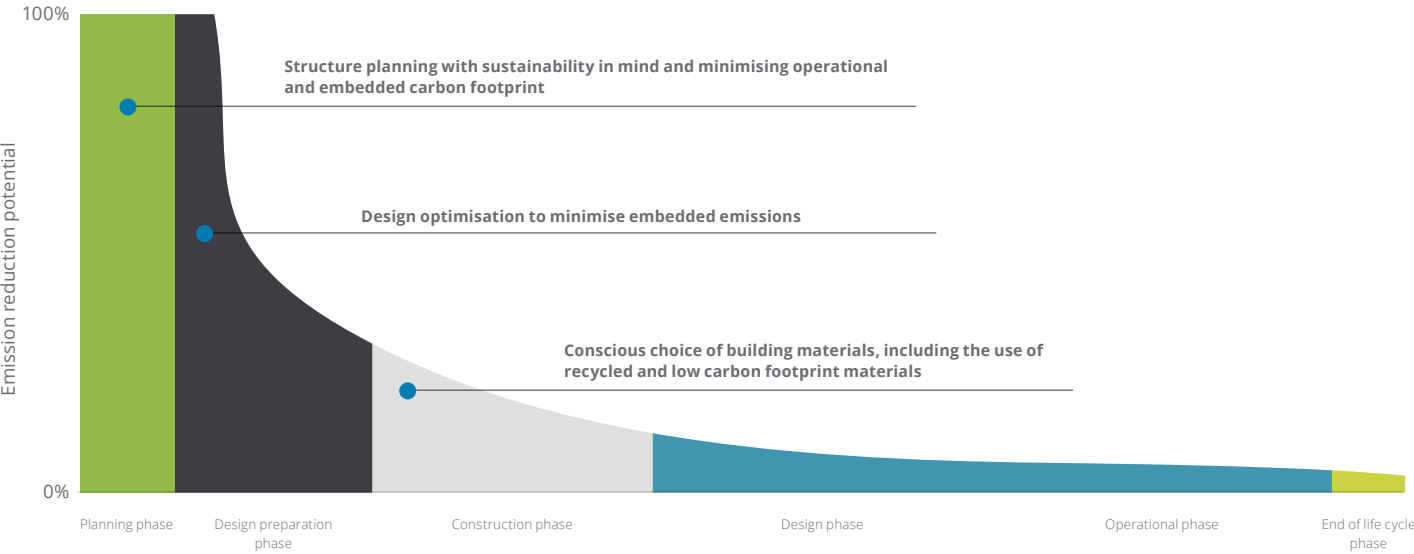
Construction phase has an extremely great impact on the environment and the community. In this phase, it is very important to monitor the entire construction process (both verification of consumption, such as the use of electricity, energy fuels, transport, water or the amount of waste generated and the way it is managed or transported, but also the impact on biodiversity, implementation of established policies or social issues such as workplace accidents, turnover rate and employee satisfaction), appropriate selection of suppliers (focusing not only on cost aspects, but also environment) or ethical conduct and maintaining good relations with all stakeholders. During the construction phase, social issues concern both employees and their immediate communities. With regard to employees, it is essential to ensure their health and

safety, as well as a stable workplace. As far as the community is concerned, companies implementing the project should focus on the involvement of the local community, making every effort to minimize the negative impact of the work on the lives of nearby residents during the construction process. Environmental issues require consideration if it is possible to use local suppliers and natural resources, minimizing transport by developing an approach to its optimisation. Informed decision-making about the materials used has a significant impact on how the building affects the environment, which is why it is important to use ecological solutions, e.g. recycled or having environmental declarations. During the construction phase, energy-efficient technologies should be used as much as possible, such as the use of low-emission equipment and machinery for construction work.

Summary

In order to achieve climate neutrality by 2050, which is the goal set for the European Union countries, including Poland, the construction industry, responsible for nearly 40% of global anthropogenic emissions, must undergo a transformation process. Therefore, all activities of construction companies and entities operating in the real estate sector should be executed with a focus on achieving a zero operational carbon footprint (the so-called Scope 1+2 according to the GHG Protocol) and reducing the embedded carbon footprint to a minimum (the so-called Scope 3 according to the GHG Protocol). The current level of ambition to reduce emissions is around 50% by 2030 against the baseline. Therefore, the design process of any new facility should include minimising energy demand and

Figure 2. Emission reduction potential depending on the project phase





Kajima Poland: Panattoni Park Bydgoszcz IV (Aldi)

then completely eliminating the use of fossil fuels. Powering buildings from 100% renewable energy sources, building a facility from recycled or recovered materials, and planning their last life cycle in accordance with the principles of circular economy will also play its part. At the same time, in the era of increasing competition, in the new “climate-friendly” conditions of the market and regulatory environment, it is necessary to rethink the current business strategy in the context of its current and future impact on environmental, social and governance elements. They will translate into the creation of the so-called ESG Strategy and Goals, defining new roles and oversight of non-financial factors (the so-called Governance). They will also provide resources and systems for the collection and mandatory reporting of non-financial (sustainable development data) (CSRD), which will soon be subject to independent assessment by auditors. At the same time, it should be borne in

mind that the implementation of the described transformation should not be driven only by the desire to adapt to the new regulations but should define the framework for functioning in the new reality of customers and financing institutions as well as investors focused on sustainable development and climate. An ESG strategy combined with the right business model should ensure that a company can have a positive impact on all key stakeholders, including employees and the supply chain, which will have a key impact on the current financial results, image, building lasting business relationships and thus future development opportunities for the company.



Mostostal Warszawa: Revitalisation of the old Przędzalnia in Łódź

Annex 2

Construction sector barometer – Deloitte survey

A survey was carried out in the process of preparing this report. It was addressed to the entities operating on the Polish construction market. The aim of the survey was to find out the opinions of those working in the industry concerning the outlook for the construction industry, the impact of diversification of services and the assessment of the most important risks and opportunities in the context of companies’ operations in the coming years. We are happy to present the results of the survey for 2023 along with a comparison of the responses obtained in the survey in the previous year.

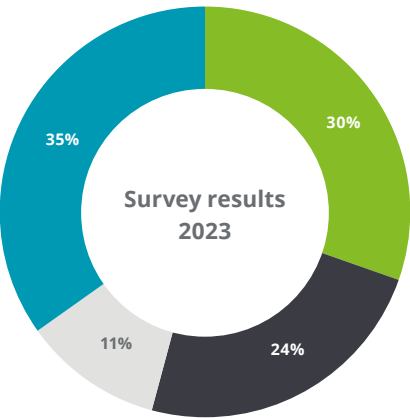
1. Description of respondents

More than a dozen entities from the construction industry took part in the survey, 54% of which were small and very small enterprises that in 2022 generated revenues of less than PLN 100 million and

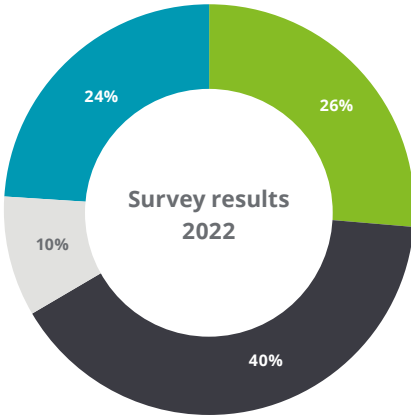
between PLN 100 million and PLN 500 million. The largest share constituted very large enterprises with revenues exceeding PLN 1 billion (35%). The smallest group accounted for 11% of the total and these

were companies whose revenues ranged between PLN 500 million and PLN 999 million.

What revenues approximately has your company generated in the last year?



- Less than PLN 100 million
- Between PLN 100 and 500 million
- Between PLN 500 and 999 million
- PLN 1 billion or more



- Less than PLN 100 million
- Between PLN 100 and 500 million
- Between PLN 500 and 999 million
- PLN 1 billion or more

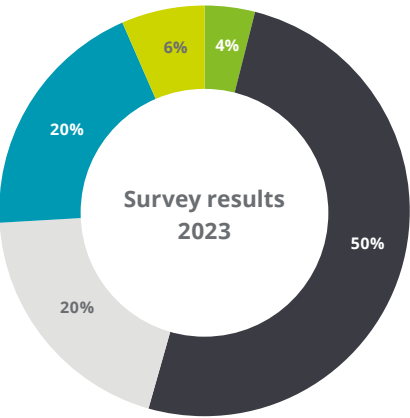
1.1. Economic outlook

The first two issues concerned the economic outlook for the construction industry in the short-term (6-24 months) and in the medium and long-term (over 24 months). In the case of the short-term outlook for 2023’s results, the majority of respondents (50%) indicated that the economic situation will improve slightly, while only 6% of respondents said that the situation will deteriorate significantly.

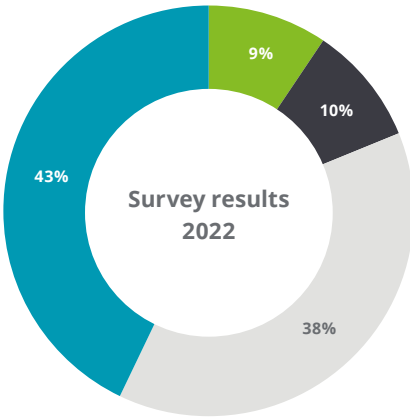
Responses indicating a significant improvement in the market situation were chosen the least frequently (4% of respondents). Furthermore, 20% of respondents said that the economic situation will not change. In comparison, the results of the 2022 survey were more pessimistic. Respondents did not indicate a significant improvement, and only 9% believed that there was a chance for

improvement. Respondents most often chose the answers “decline slightly” (43%) and “will remain unchanged” (38%). The results of this year’s survey are certainly influenced by the continued large number of infrastructure projects in the field of road and railway construction.

What are your expectations concerning the short-term outlook for the construction sector (6-24 months)?

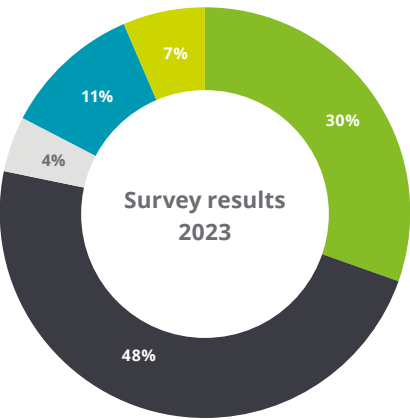


- It will improve significantly
- Will deteriorate slightly
- Will improve slightly
- It will deteriorate significantly
- It will not change



- It will improve significantly
- Will deteriorate slightly
- Will improve slightly
- It will deteriorate significantly
- It will not change

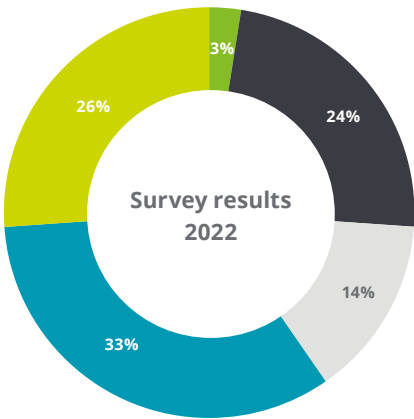
What are your expectations concerning the medium- and the long-term outlook for the construction sector (over 24 months)?



- It will improve significantly
- Will improve slightly
- It will not change
- Will deteriorate slightly
- It will deteriorate significantly

In the 2023 survey, 48% of companies believed that the economic situation will “improve slightly” over the next 24 months, while 30% of respondents believe that the situation will “improve significantly”. The current economic situation has created uncertainty among companies operating in

the construction industry as to the future economic outlook and potential growth. 18% of respondents indicate that it will decline significantly and decline. However, 4% say that the situation “will not change”. Comparing the responses to the results of the 2022 survey, about 60% of respondents



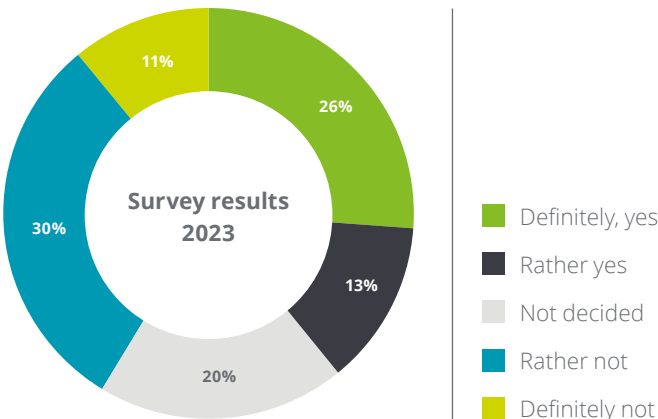
- It will improve significantly
- Will improve slightly
- It will not change
- Will deteriorate slightly
- It will deteriorate significantly

said that the situation would decline. More than 25% of respondents said that the economic situation in the construction industry will improve.

1.2. Diversification of services by geography

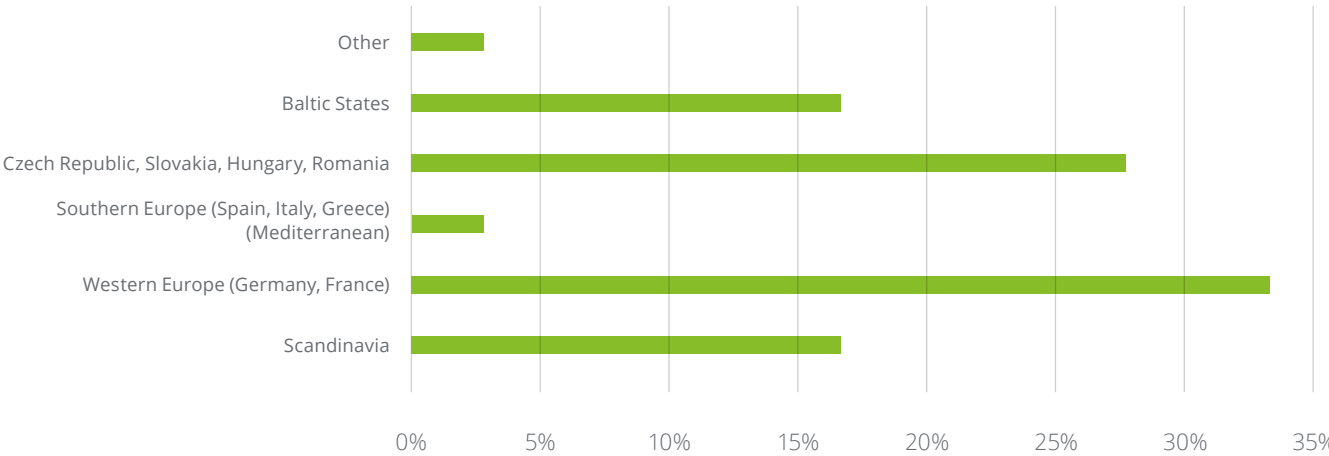
The following questions of the 2023 survey asked the entities to assess the impact of service diversification and geographical diversification on the growth of their

Do you plan to expand your operations to foreign markets in the near future (up to 24 months)?



- Definitely, yes
- Rather yes
- Not decided
- Rather not
- Definitely not

If yes is checked, then: What are these markets?



organisations. The results of the 2023 survey indicate that in the near future, the vast majority of the entities, which took part in the survey do not plan to diversify geographically and expand their operations into foreign markets. As many as 41% chose the answers “rather not” or “definitely not”.

About 26% of respondents are determined to expand abroad, and 13% of respondents are inclined to it. Companies planning to grow further are mainly targeting the countries of Western Europe (Germany, France) and Central and Eastern Europe (Czech Republic, Slovakia, Hungary, Romania, Bulgaria) – 61% of respondents

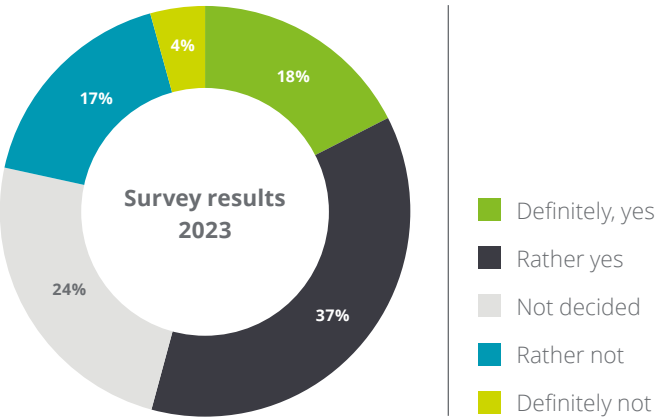
indicated these directions of their expansion, 17% of respondents indicated the Baltic countries, the same percentage of respondents indicated the Scandinavian countries.

As the above chart shows, the highest number of indications in 2023, in the case



UNIBEP Group: Copernican Revolution Lab in Warsaw

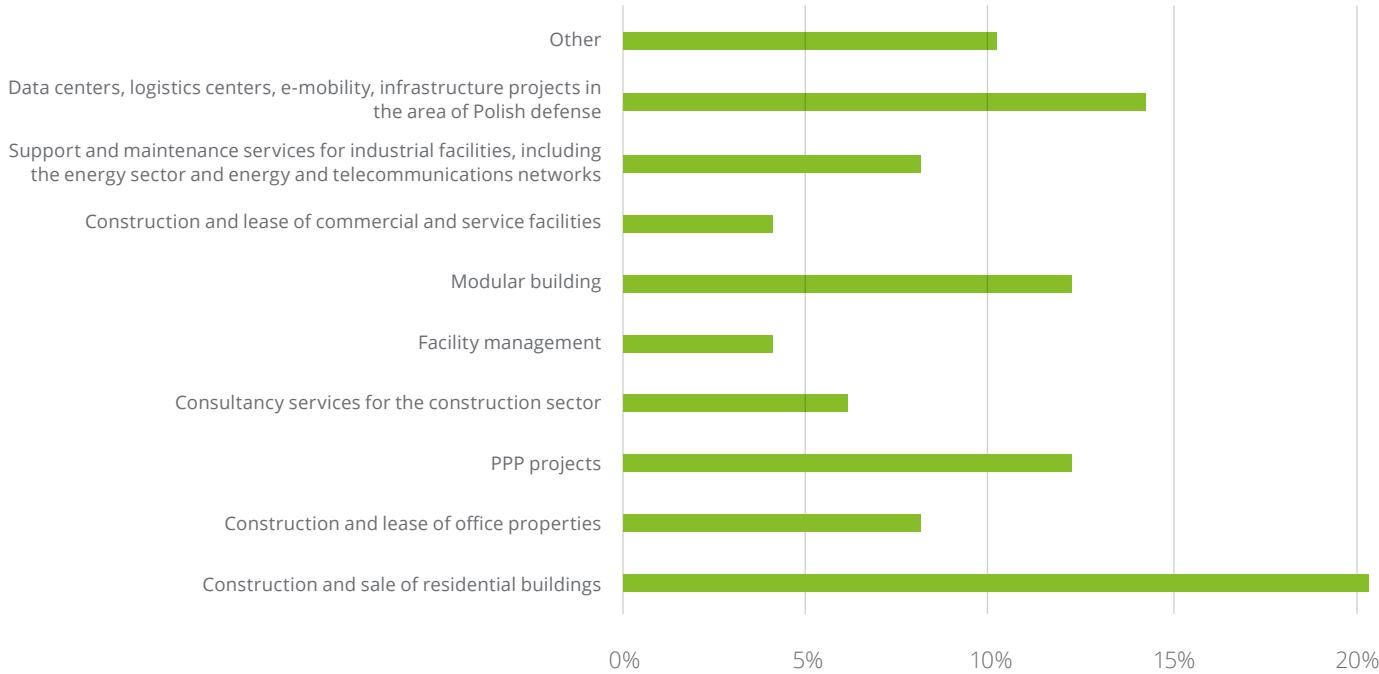
Do you plan to expand your service diversification in the near future (up to 24 months)?



of diversification of services, received the response “rather yes” – 37%. A large group of companies did not decide to change their structure of services they offer. “Definitely not” and “rather not” were given by 4% and 17% of respondents, respectively. The largest percentage share mainly indicated

the development of services related to housing construction (20%), as well as data centers and logistics (14%). 10% of respondents indicated other forms of diversification, such as renewable energy sources.

If yes, rather yes, then: What key areas of diversification are you considering (other than general contracting)?

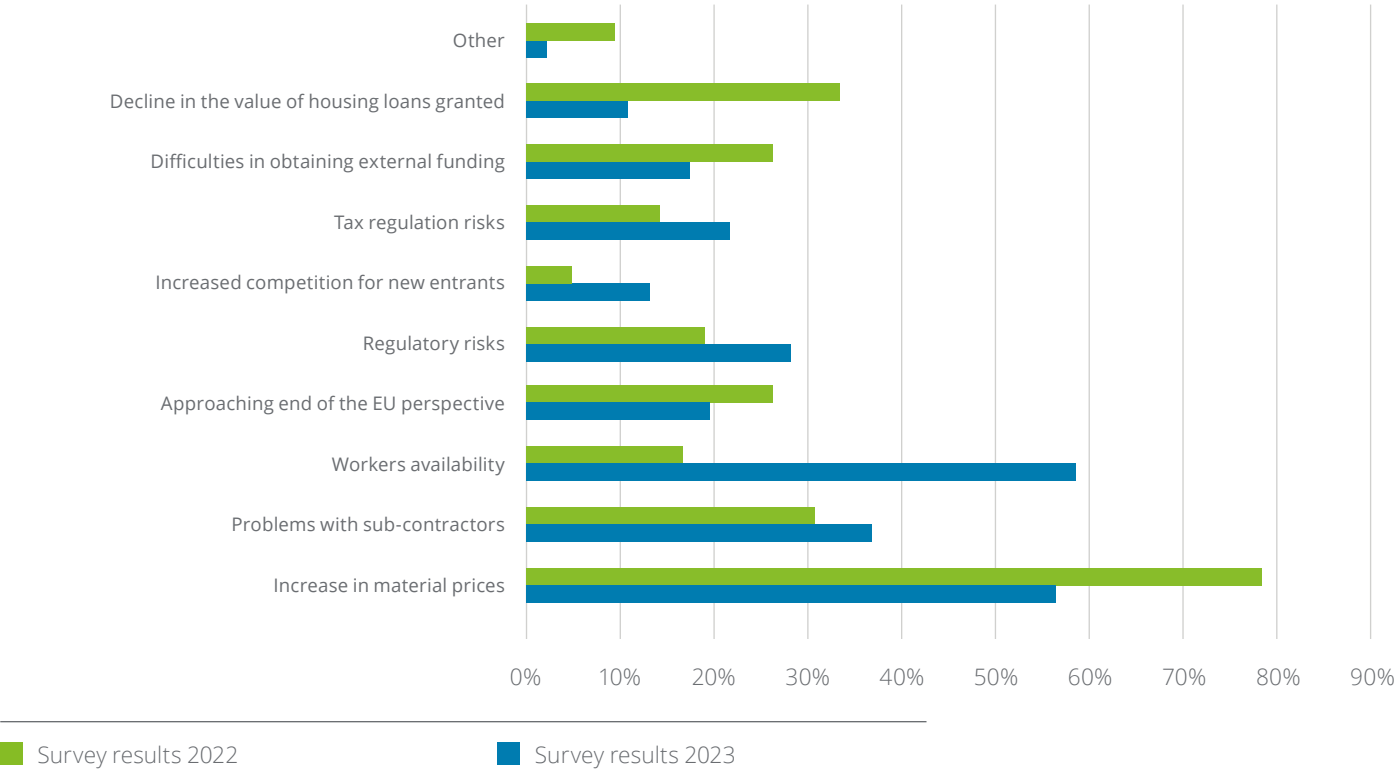


1.3. The most important risks and opportunities for the operation of companies in the coming years

The next questions were to identify the most important risks and opportunities for the operation of the construction

companies in the coming years. Respondents could select up to three answers from a dozen options.

Which of the following risks do you believe to be the most significant for your company's operations in the coming years?

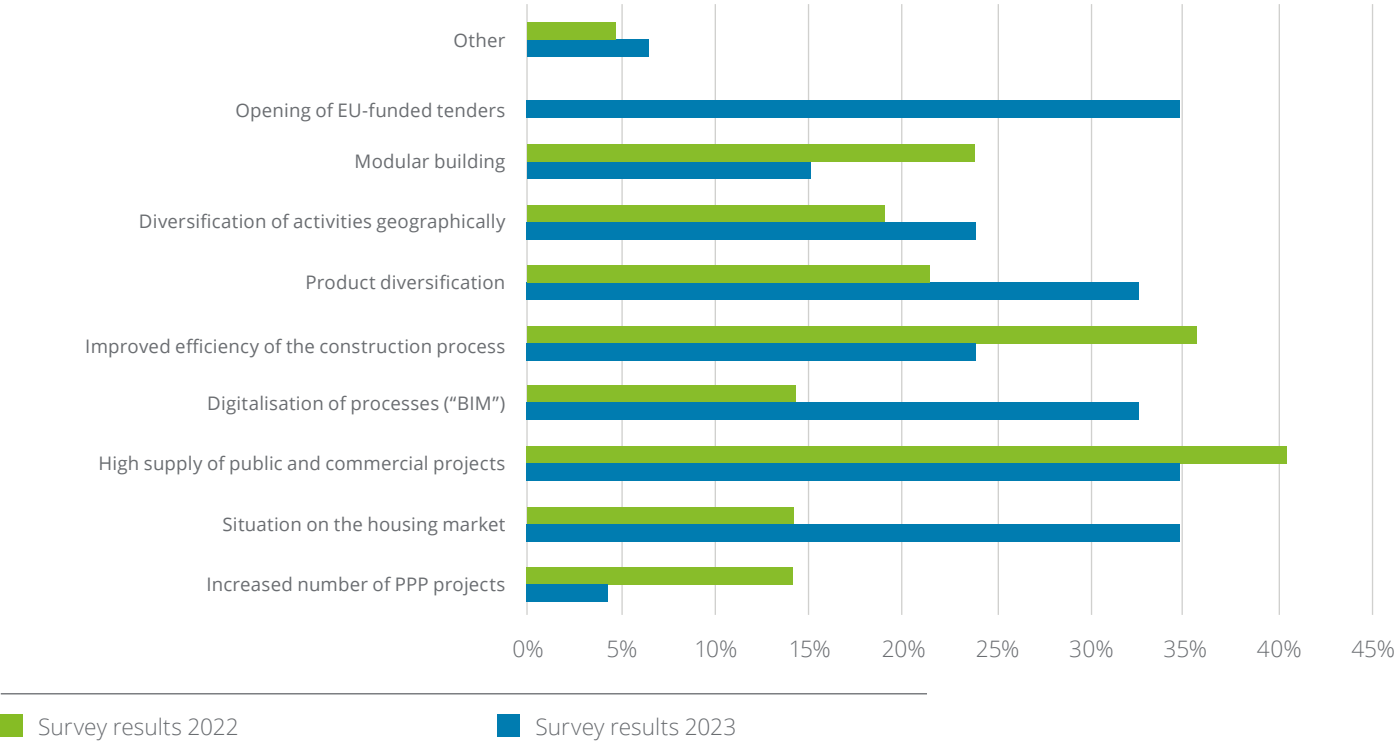


As can be seen from the chart above, the results of the survey in 2023 indicate that three areas will have the greatest impact on companies' operations in the coming years: workers availability (59%), an increase in material prices (57%), and problems with subcontractors (37%). It is worth noting that in the last year's survey, as many as 79% of respondents also pointed to the increase in material prices as one of the factors, 17% pointed to problems with the workers availability, and 31% pointed to problems with subcontractors.

In addition, 28% and 22% of responses, respectively, indicated “regulatory risk” and “tax regulation risk” as a threat, which was indicated by less than 20% of respondents in the last year's survey. 20% of respondents chose a risk relating to the end of EU perspective. As other threats, the respondents indicated mainly the investment slump or decline in demand due to closing credit taps for buyers (approx. 17%). The survey participants also identified the biggest opportunities impacting the company's operations in the coming years. They are shown in the chart below.

In 2023, the most frequently chosen answers were “high supply of public and commercial projects”, “situation on the housing market” and “opening of EU-funded tenders” (35% each). The next responses indicated equally by 33% of respondents, were “digitalisation of processes” and “product diversification”. Respondents also indicated “improved efficiency of the construction process” or “geographical diversification”.

Which of the following opportunities are the most important for your business in the near future?



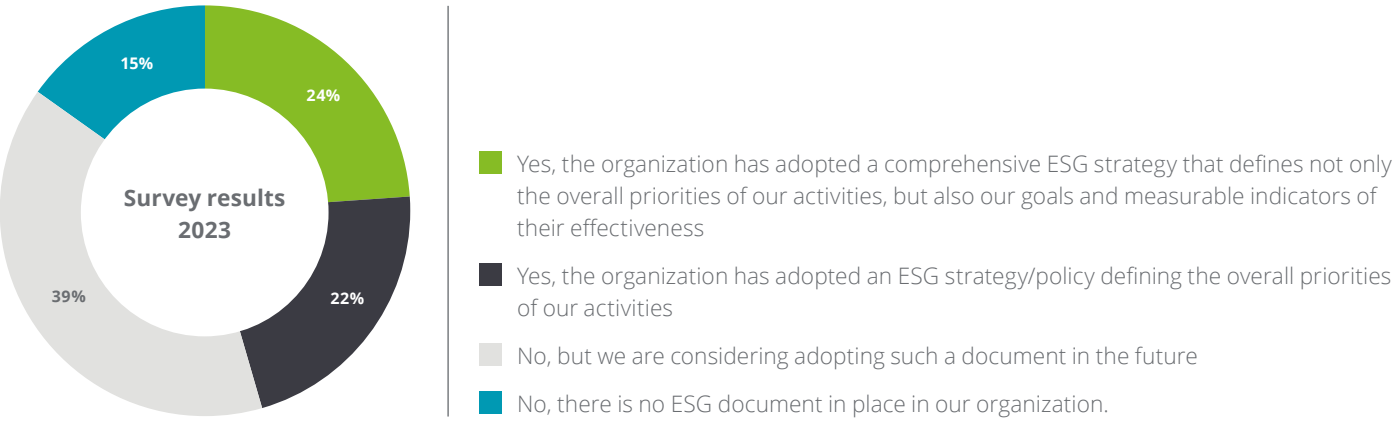
1.4. The impact of the micro and macro environment on the current situation of the construction industry

In this year's edition of the survey, respondents were asked whether they had a clearly defined strategy and policy in relation to environmental, social and

governance factors. The idea behind the ESG (Environmental, Social and Corporate Governance) strategy is that a company cares not only about its economic interests,

but also about local communities and the environment, which allows it to grow and stabilize itself in a sustainable way. The data shows that 22% of respondents

Does your organization have a comprehensive ESG Strategy adopted by the Management Board, along with defined goals and a structure for overseeing their implementation?

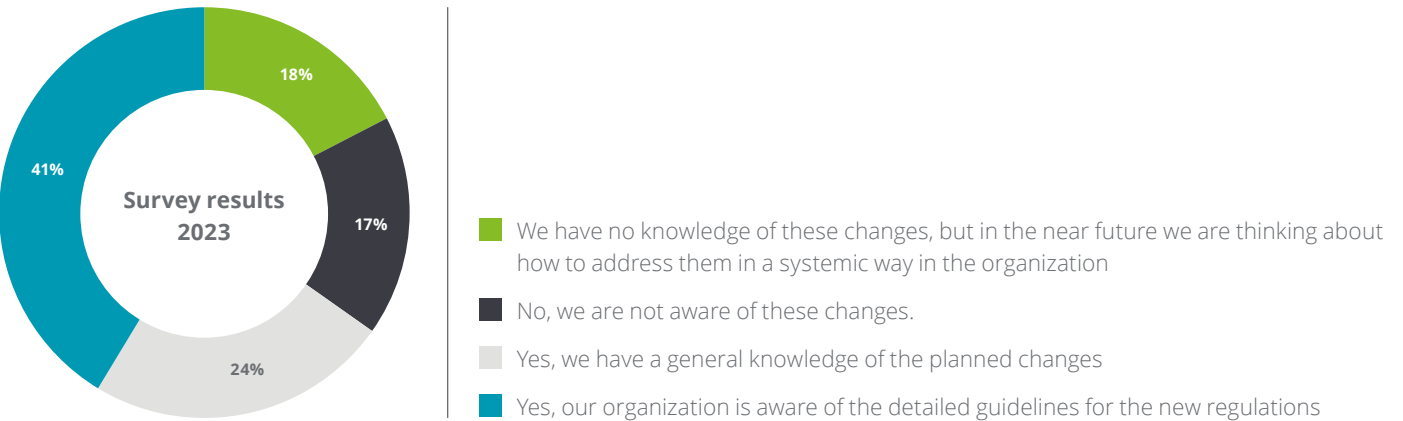


have adopted a strategy that defines the overall priorities of their actions, while 24% of respondents indicate a detailed ESG strategy. 15% of respondents did not

implement any concept, and 39% plan to prepare it in the future.

With regard to regulatory changes related to the implementation of the European Union's Action Plan on Financing Sustainable Growth for the Construction

Is your organisation aware of the regulatory changes related to the implementation of the European Union's Action Plan on Financing Sustainable Growth, including in particular the specific changes, criteria and obligations imposed on companies by Regulation 2020/852 on the establishment of a framework to facilitate sustainable investments (Taxonomy Regulation) also in relation to the construction sector?



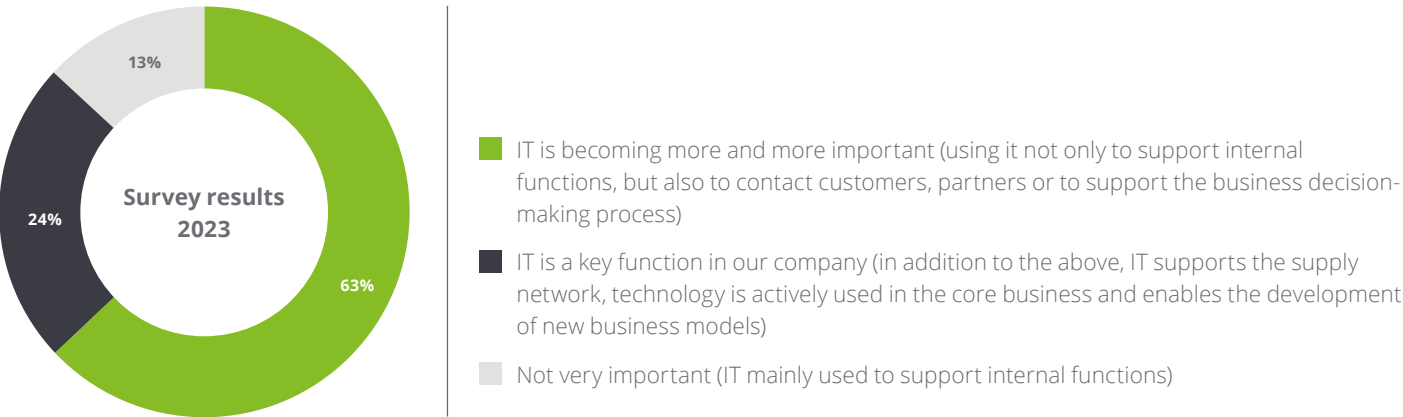
Sector, about 65% of responses indicate awareness and knowledge of the planned changes. About 35% do not have such knowledge, of which 18% are ready to learn it, and the remaining 17% is not aware of it.

The results of the survey are presented in the chart below.

In addition, as part of this year's survey, we asked the sector about the role and

assessment of IT implemented in entities. According to the responses, the role of IT is becoming increasingly important in business processes (63%). In 24% of cases, this role is crucial for companies

How do you assess the role of information technology (IT) in your company?

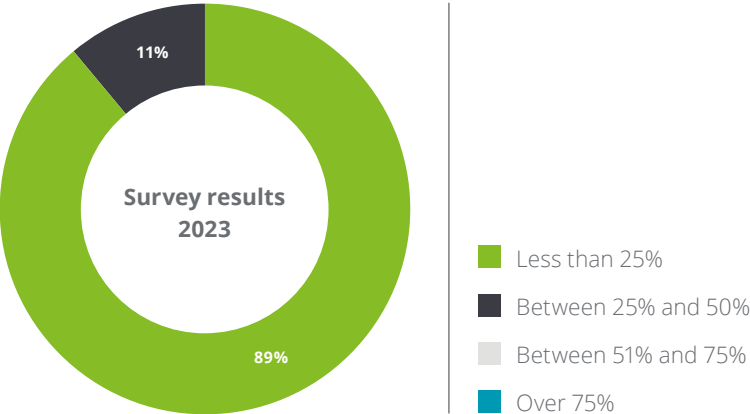


and supports the supply network or development of new business models. Interestingly, for 13% of respondents in the construction industry, IT is not of great importance.

According to the results of the survey, the scale of investments in IT in relation to annual investments does not exceed the level of 25% in as many as 89% of the surveyed enterprises. Only 11% of respondents indicated investments at

the level of more than 25-50%. Compared to the last year's survey, none of the respondents indicated investments above 51% of their annual investments. The results of the survey are presented in the chart below.

What is the scale of investment in the area of information technology (IT) in your company (please specify the percentage of IT investment in total annual investment)?



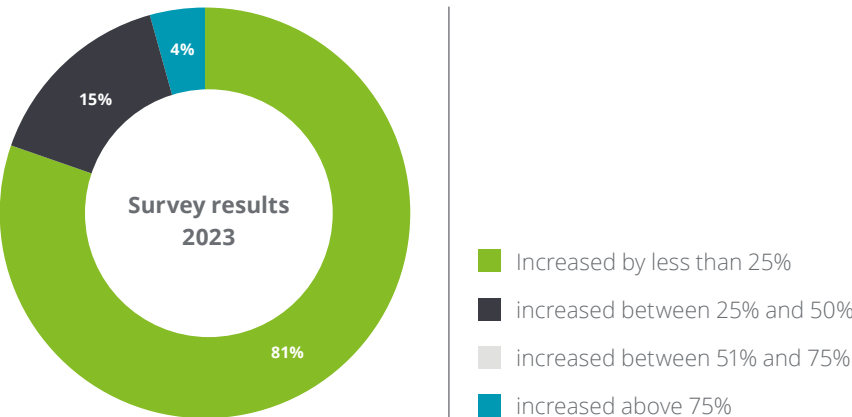
As the chart below shows, as many as 81% of respondents showed the smallest scale

of investment growth compared with the last year (below 25%). 15% gave a response indicating an increase between 25% and

50%, while only 4% above 75%.

In this year's survey, respondents were also

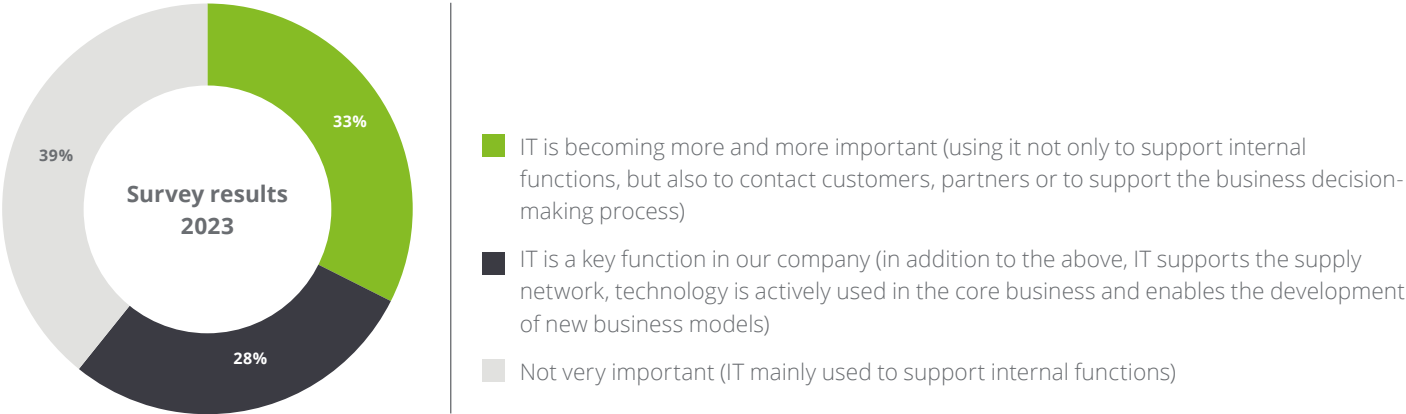
To what extent has the scale of IT investments changed over the last year (please indicate the percentage change in the budget for non-construction technologies in 2022 compared to the previous year).



asked about the Decarbonisation Strategy. The results indicate that only 33% of organisations have defined a strategy, and

as many as 39% are considering adopting it in the future.

Has your organisation defined a Decarbonisation Strategy in line with the 1.5C ambition, confirming measurable targets and initiatives to reduce CO₂ emissions in line with the Paris Agreement and the EU Green Deal?



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