



# The impact of STRABAG on the development of the Polish economy



**Deloitte.**

Report elaboration

**STRABAG**  
WORK ON PROGRESS

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Dear All,

Pruszków, 4 April 2023

It is with great satisfaction that we release for you this report on the role of STRABAG in the development of Polish economy, which we have been a part of since 1987. From the very beginning of the political and economic transformation, our company has taken an active part in building a free, modern Poland that is open to the world. The 35 years of STRABAG's operations in Poland are an excellent opportunity to look at what value added by the company contributed to the country, its economy and society, and to reflect on how it may affect their future development.

Our impact on the development of Polish economy is best presented in figures. Over PLN 1.1 billion of direct contribution to GDP in 2021, with a total of PLN 7.3 billion, taking into account the equally significant indirect and induced contributions. 60,000 generated jobs, 5,000 further suppliers who benefit from working with us, and finally more than PLN 0.7 billion in taxes, including the contributions we have paid directly to numerous central and local government entities. These figures speak for themselves, but we also understand perfectly, that our impact on the economy cannot be reduced just to numbers.

During its 35 years of operations in Poland, STRABAG has grown dynamically, executing ever more projects and effectively becoming the second biggest construction sector company in the country. The thousands of sites we have built during this period of time are used by over a million people every day. Projects of national importance such as motorways, railways or motorways are obviously the biggest contribution to this number, but alongside these, there are thousands of local investments - hospitals, bridges, schools or factories. We are proud that this is an element distinguishing us from other large construction companies and, over the last few years, we have become a proven partner for local authorities, often undertaking projects with a smaller unit value, but of great importance for local communities.

An equally important contribution to the growth of Polish economy is the fact that STRABAG has consistently implemented in Poland the best possible standards of work and project execution. The high quality of the facilities we build accelerates modernisation of the country, while our global know-how and focus on future solutions support the development of efficiency, productivity and human capital, benefiting Polish economy, society and the environment.

The substantial contribution of STRABAG to the development of sustainable construction in Poland is also particularly important to us. Over the years, we have taken numerous measures to minimise the consumption of natural resources, energy and raw materials. We intend to accelerate this process in the coming years, achieving our ambitious goal of our group, which is climate neutrality by 2040.

The report "The impact of STRABAG on the development of Polish economy" was prepared by Deloitte Polska, one of the leading companies providing professional advisory services for businesses. It is a global brand operating in more than 150 countries around the world. Its know-how, a fruit of more than 175 years of experience and the employment of some 415,000 specialists, is the best guarantee of the credibility of the study we are handing over to you and which you are warmly invited to read.

Yours faithfully



**Wojciech Trojanowski**

Member of the Management Board of  
STRABAG Sp. z o.o.

**Waldemar Wójcik**

Member of the Management Board of  
STRABAG Sp. z o.o.

# SUMMARY

## The development of Polish economy and local governments

**Every day, more than one million people use the facilities built by STRABAG in Poland.** STRABAG carries out 600 construction projects per year on average. They systematically introduce the latest technological solutions, such as e.g. the digitalisation of the construction process (BIM) and new, more environmentally friendly materials (e.g. rubber-modified asphalt). This scale of activity and innovation enable more effective execution of projects, both with national and local impact.

**STRABAG is responsible for nearly 40% of motorways built in Poland and more than 20% of expressways**

- **STRABAG is responsible for almost 40 per cent of the motorways built in Poland and more than 20 per cent of expressways** - every fourth kilometre of expressways in Poland has therefore been provided by this company. New roads contribute to the economic growth by reducing travel time and cost, which supports the development of trade relations with neighbouring countries and offers equal opportunities to individual regions.
- The result of cooperation with local authorities in all provinces, which sets STRABAG apart from the other major construction companies are **new local roads and streets and many public facilities such as hospitals and schools.** In recent years, **cooperation with local authorities in eastern and northern Poland** has developed particularly intensively, facilitating the narrowing of the development gap between these regions and the rest of the country.
- **STRABAG is working towards railways modernisation in Poland.** The Katowice and Warszawa Wschodnia railway stations rebuilt by STRABAG are among the most frequently used in the country, and the rebuilding of the E30 line will drastically improve railway traffic in Kraków. The railway and tramway projects are STRABAG's contribution to the development of environmentally friendly public transport.

The efficiency and scale of STRABAG's operations in Poland translate into a large contribution to the GDP. This is particularly evident in the data for 2021:

- **Our company alone creates more than PLN 1.16 billion of added value, the most important component of GDP.** The company directly generates more than 6,800 highly paid jobs - the average salary of people working at STRABAG in 2022 was ¼ higher than the average for large companies. Significant added value and high salaries mean an influx of more than PLN 0.71 billion in tax and contributions to the state budget and public finances as a whole. This is an amount that allows pensions to be paid to almost 28,000 senior citizens.
- The cooperation with 5,000 further suppliers and the salaries paid by STRABAG and its partners generate a further PLN 6.1 billion in added value and sustain 53,000 jobs.
- **As a result, the total impact of STRABAG is more than PLN 7.27 billion - the equivalent of 0.28% of Polish GDP in 2021.**



Strabag in Poland

**STRABAG's activities are the answer to the challenges of the future.** The objective of the company is to **achieve climate neutrality by 2040.**

The Group **is executing 250 innovative projects** around the world to support the Group's transformation towards sustainable development, reducing electricity or water consumption for construction, reusing waste and carrying out many other activities.

# ABOUT STRABAG

TABLE 1. STRABAG IN POLAND IN NUMBERS, DATA FOR 2021

<b>Areas of Activity</b>	<b>9</b> areas of activity
<b>Market position</b>	<b>2<sup>nd</sup> place</b> among Polish construction companies
<b>Revenue*</b>	PLN <b>5.07 billion</b>
<b>Contribution to state funds (taxes, contributions)</b>	Over PLN <b>0.71 billion</b>
<b>Contribution to the GDP</b>	STRABAG's direct contribution: PLN <b>1.16 billion</b> Effects of purchasers from further suppliers and paid salaries: PLN <b>6.11 billion</b> Total: PLN <b>7.27 billion, 0.28% GDP</b>
<b>Contribution to the creation of jobs</b>	Employment directly at STRABAG: <b>6.8 thousand</b> people Jobs in the economy sustained through purchasing at further suppliers and consumption by our staff: over <b>53,000</b> . Total: almost <b>60,000</b> .
<b>The number of further suppliers</b>	<b>5 thousand</b>
<b>The number of ongoing projects</b>	<b>497</b> orders, with a total value of nearly PLN <b>8 billion</b>
<b>The number of people using the facilities built by STRABAG every day</b>	Over <b>1 million</b>

\*excluding revenue from related entities

Source: data for the 13 most important STRABAG companies in Poland and calculations by Deloitte



**WATCH THE VIDEO**

**STRABAG is a leader in digitalisation in construction**

STRABAG is a modern, quickly growing construction company. During its 35 years of operation in Poland, it has grown dynamically, completing more and more projects to become the second largest Polish construction company with a revenue of PLN 5.07 billion as of 2021. The implementation of a large number of public infrastructure projects, in the field of road and railway construction and public facilities, which are used by more than one million people every day, is largely responsible for the revenue levels achieved by the company. The company currently employs almost 6,800 people, directly generating more than PLN 1.16 billion in the GDP and more than 0.71 billion in taxes and contributions.

The innovation and scale of operations ensure the efficiency of STRABAG that benefits the economy, employees, society and the environment. **STRABAG is the leader in digitisation in technology.** It works using the **BIM** technology during construction execution, uses drones at construction sites, works using a digital construction site, digitalises construction documentation and optimises logistics and construction processes. It has its own laboratory which develops and implements innovative technologies when STRABAG implements projects - e.g. road surfacing. The solutions developed by the company include durable asphalt roads, luminous asphalt or concrete pavements reinforced with fibreglass rods.



**STRABAG  
wants to be a  
climate-neutral  
company  
by 2040**

**Sustainability is a core value for STRABAG.** The company focuses on its employees. The company is concerned about maintaining a safe and stable working environment and ensuring support for individual performance and diversity in the staff teams. It is also committed to the preservation of natural resources and using energy efficiently, by continuously improving its environmental activity. In order to achieve this objective, environmental responsibility has been defined as a priority area of the Group strategy. **STRABAG aims to be a climate-neutral company by 2040.**

In order to protect the environment, the company implements new technologies into their daily operations. The company is systematically working on improving its construction solutions, increasing the efficiency of its works, implementing recycling and reducing emissions and waste generation.

Some of the more interesting achievements of STRABAG in Poland are the introduction and development of road surface made from rubber granules obtained from used tyres, or unique in Europe technologies for processing municipal waste and producing so-called green energy from it.

**STRABAG is part of a European construction group that operates on a global scale.** The Polish organisation is one of the three most important units of the group in Europe. The offer of STRABAG Group covers various areas of the construction industry. The wide array of companies ensures a comprehensive range of services provided by the company. With a large workforce and its own professional machinery, STRABAG is able to carry out even the most complex construction projects, ensuring high quality, speed of execution and competitive price.



High performance of STRABAG in Poland is a tangible benefit for its customers (usually local authorities), but also:

**Significant company contribution to the creation of Polish GDP**

The company is directly responsible for contributing PLN 1.16 million to the GDP in 2021. Together with its sub-contractors, it generates as much as PLN 7.27 million (0.28% of GDP). This translates into almost 60,000 jobs.

**Attractive salaries for the employees**

According to the latest figures from 2022, employees earn at STRABAG an average salary of 9,200 PLN<sup>1</sup>, namely almost 40% more than the average salary in the enterprise sector, which is below 6,700 PLN (gross).

**Realistic funding for public expenditures**

The high performance of the company translates into more than PLN 0.71 billion contributed by STRABAG to funding of public spending in 2021. Such amount allows to fund pension payments for almost 28,000 senior citizens.

**Competitiveness of construction offers for the benefit of local communities**

STRABAG does not only fund public expenditure, but it also builds public facilities, and the numerous tenders it has won attest to the attractive bids made by the company.

1. The value for employment contracts, which account for more than 96% of contracts with employees.

# 35 years in Poland STRABAG in dates

A2 motorway  
Nowy Tomyśl - Świecko  
(106 km)



Bridge  
in Toruń



Railway station  
in Katowice



VW Crafter factory  
in Września



S61



A1



Central Point  
in Warsaw



Tramway route  
ul. Kasprzaka in Warsaw



- 1987** • established,  
construction of the **Marriott in Warsaw**
- 1992** • commissioning of the "**Pazim Centre**" complex  
with the "**Radisson**" Hotel in **Szczecin**
- 2002** • commissioning of **Galeria Łódzka**
- 2006** • commissioning of a **30 km** section  
**A2 Konin - Koło** and **Galeria Krakowska**
- 2009** • The head office of STRABAG is moving  
to Pruszków near Warsaw,  
• record contract for the construction of a toll  
**A2 motorway Nowy Tomyśl - Świecko (106 km)**
- 2011** • completion of the **Wrocław Motorway Ring Road** and the **A2  
motorway from Świecko to Nowy Tomyśl**
- 2013** • **Bridge in Toruń** with the longest arch spans  
in Poland released for use,  
• end of construction of **Galeria Katowicka**  
and of the new **railway station in Katowice**
- 2014** • opening of the factory hall of  
**Volkswagen Motor Polska in Polkowice**
- 2015** • **Szczecin Fast Tram** released for use,  
• contract for the renovation of airport runways and taxiways  
in Bydgoszcz, Łódź, Poznań, Wrocław
- 2016** • opening of the three halls of the new **VW Crafter van factory**,  
• commissioning of a **40 km** section of the **A1 motorway  
Stryków - Tuszyn** and a **41 km** section of the **A4 motorway  
Rzeszów - Jarosław**
- 2017** • contract for a **20-kilometre** section of the **E30 railway line  
in the Krakow Główny Towarowy - Rudzice** section,  
• completion of **68 km** of the **S5 and S7 expressways**,  
• contracts for two sections of the **S19** and a section of the **S61**
- 2018** • signing of contracts for the expansion of **Lublin Airport**,  
construction of **106 km** of expressway sections - **A1, S7, S14, S19**,  
• start of construction of the **Mercedes factory halls in Jawor**
- 2019** • contract for the expansion of the **Oliwski Quay in the Gdańsk Port**,  
• start of construction of the **Dental Clinical Centre at Lublin  
University**,  
• commissioning of the **52 km Częstochowa Ring Road  
along the A1**
- 2020** • commissioning of a **24 km** section of the **S17 Góraszka -  
Kolbiel**,  
• contract for the construction of the **Bieleński Hospital  
in Warsaw** and the construction of the **Polish Embassy  
in Berlin** and the modernisation of **51 km** of the **E59 Poznań-  
Szczecin railway line**
- 2021** • completion of **41 km** of the **S19 road  
in the Lublin and Sub-Carpathian regions**,  
• commissioning of the **Southern Hospital** and completion  
of the **Central Point in Warsaw**,  
• completion of drilling works of the **tunnel** for the **Baltic Pipe  
land section**,  
• contract for the construction of a **tramway line in ul.  
Kasprzaka in Warsaw**
- 2022** • commissioning of the **WIM hospital in Legionowo** and the  
**Ophthalmology Ward at ul. Szaserów in Warsaw**,  
• completion of the extension to the **transport system  
in Rzeszów city centre**,  
• commissioning of the **5 Corners Square in Warsaw**  
and **ul. Św. Marcin in Poznań**

# COMPANY WITH NATIONAL AND LOCAL INFLUENCE

The positive impact of STRABAG on the economy and society goes far beyond the sites of the company itself. As one of the largest construction companies in the country, STRABAG directly provides employment for almost 6,800 people, and more than 53,000 additional jobs are maintained through cooperation with 5,000 further suppliers and the salaries paid. In total, STRABAG and affiliated companies produce PLN 7.27 billion, or more than 0.28% of Poland's GDP, which is an amount noticeable on the national scale. At the same time, the work carried out by STRABAG results in facilities used by more than one million people every day. These range from highways of national importance to railways, stations, hospitals, bridges or schools, crucial to the development of local communities.

## HOW IS VALUE ADDED CREATED AT STRABAG?

**STRABAG**  
executes ca. 600  
projects per year

STRABAG is the second largest construction company in Poland according to the ranking of construction companies<sup>2</sup>. This position is also confirmed by statements prepared by other companies and economic newspapers. These summaries are prepared periodically, among other things, on the basis of the financial statements of STRABAG and other construction companies. From the point of view of the activity of the Group in Poland, the companies STRABAG sp. z o.o. and STRABAG Infrastruktura Południe sp. z o.o.

are of key importance. As a whole, STRABAG carries out ca. 600 projects a year in the country, including both investments of national importance and smaller, but equally important projects for local communities. Such a strong position of STRABAG in the construction sector is an effect of the continuous implementation of improvements by the company in the areas of business management, efficiency of work or the used raw materials and tools.

TABLE: RANKING OF THE BIGGEST CONSTRUCTION COMPANIES IN POLAND BY REVENUE IN 2021 (IN THOUSAND PLN).

No.	Company Name		Revenue 2021	Revenue 2020	Nominal change	Percent change
1.	Budimex Group	—	7,911,192	7,709,106	202,086	2.6%
2	Strabag Group	—	5,082,750	5,186,796	-104,046	-2.0%
3	Group PORR	—	3,497,523	2,687,941	809,582	30.1%
4	Erbud Group	—	3,102,095	2,228,344	873,751	39.2%
5	Mirbud Group	↗	2,505,568	1,242,903	1,262,665	101.6%
6	Polimex - Mostostal Group	↗	2,304,000	1,615,320	688,680	42.6%
7	Unibep Group	↘	1,712,390	1,682,337	30,053	1.8%
8	Goldbeck	☆	1,558,229	995,481	562,748	56.5%
9	Poznańska Korporacja Budowlana Pekabex SA	☆	1,504,862	952,327	552,535	58.0%
10	Warbud S.A.	↘	1,467,864	1,634,766	-166,902	-10.2%
11	Grupa Trakcja	↘	1,424,841	1,338,982	85,859	6.4%
12	Mostostal Warszawa Group	—	1,305,030	1,365,481	-60,451	-4.4%
13	Skanska S.A.	—	1,293,700	1,169,800	123,900	10.6%
14	Grupa Dekpol	—	1,255,783	1,054,978	200,805	19.0%
15	PUT Intercor	☆	1 237,895	803,534	434,361	54.1%
<b>Total</b>			<b>37,668,095</b>	<b>31,668,095</b>	<b>5,495,628</b>	<b>17.4%</b>
<b>Medium</b>			<b>2,477,582</b>	<b>2,111,206</b>	<b>366,375</b>	<b>17.4%</b>

Note: the report covers only the 2 largest companies (STRABAG Polska sp. z o.o. and STRABAG Infrastruktura Południe), whereas this study, thanks to access to company data, includes the 13 most relevant STRABAG companies.

Source: Deloitte report: Polish construction companies 2022 - key players, key growth drivers and industry growth outlook, November 2022.

<sup>2</sup> Deloitte report: "Polish construction companies 2022 - key players, key growth drivers and industry outlook" (deloitte.com), November 2022.



The business efficiency of STRABAG was also recognised by the business daily newspaper Rzeczpospolita. In the latest edition of the 500 Ranking, a list of the largest Polish classified companies, **STRABAG sp. z o.o. took the 126th place by revenue and 104th by employment, which ranks it in the second place among the construction companies in this list<sup>3</sup>.**

The inclusion of the other group companies would boost the position of STRABAG by several positions in the overall list, but would not change its position in the ranking of construction companies.

The added value at STRABAG is created through the cooperation of many stakeholders. No company operates in a vacuum and cannot be analysed in abstraction from the environment in which it operates. The process of creating added value, which is the main component of GDP, requires the cooperation of owners, employees, further suppliers, the public sector and, above all, involved customers. The owners bring in their business idea, the capital and take risks. Employees bring their skills and commitment. Sub-suppliers allow the company to specialise, providing access to a wide range of goods and services required for production.

The public sector provides widely understood infrastructure - from security of company's assets and protection of health of its employees, to roads and courts resolving potential business disputes. While within one country all companies can access similar public infrastructure (the protection of property rights does not significantly differ between the regions, and differences in the quality of roads or the speed with which court disputes are settled are limited), the distinguishing factor is work organisation efficiency, capital investment and the staff. Thanks to its advantages in these areas, STRABAG has such a positive impact on the Polish economy.

**The direct impact of STRABAG is PLN 1.16 billion in added value and almost 6,800 jobs.** This amount is the added value created at STRABAG itself in 2021 the last year for which full financial statements are available). Value added is the most important component of GDP, which is the most important macroeconomic variable depicting the size and wealth of an economy. This means that the company converted the purchased goods and service into products worth by PLN 1.16 billion more than the cost of the purchases. Without the contribution of the company, the Polish economy would be poorer by this particular amount.

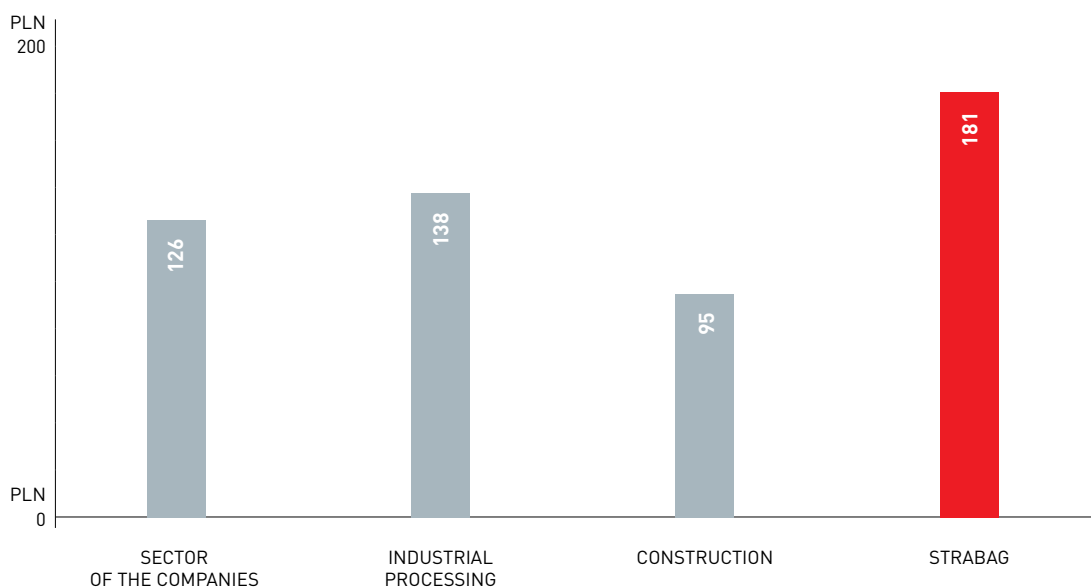
**The indirect and induced impact of STRABAG is a further PLN 6.11 billion.** The indirect impact is the effect generated among suppliers and further supplier by STRABAG's purchases and it exceeds PLN 3.36 billion. This means jobs for ca. 5,000 people working with STRABAG and co-operating with other companies.

The induced impact is the effect of salaries paid, both to STRABAG employees and to the suppliers and further suppliers of the company. By increasing household incomes, these salaries contribute to increased consumption, further driving the economy, adding over PLN 2.75 billion more to it. Together, the indirect and induced impact of STRABAG allow it to maintain almost 60,000 jobs.

The efficiency of value creation is as important as its absolute size. The **PLN 1.16 billion of added value** created at STRABAG shows the company's contribution to the creation of GDP, but the efficiency of its creation is equally important. This is well illustrated by the international example - Luxembourg's GDP is close to that of Cambodia, but the former has just over half a million people, while the latter has a population of over 15 million. The high standard of living in Luxembourg is a result of high work productivity in the local companies.

Thanks to the innovation and scaling effects, STRABAG is distinguished by its high performance in the construction sector in Poland. In 2020, for which comparable figures have been published, the **value added per employee at STRABAG - 180,000 PLN - was almost twice as high as in the construction industry as a whole (95,000 PLN)** and was significantly higher than in the companies sector (PLN 126 thousand). Although the relative position of individual sectors fluctuates slightly (e.g. in 2021, the construction sector grew more slowly than the business sector as a whole), in general, construction is a sector with relatively low productivity - which is why we should also particularly welcome the development of companies as efficient as STRABAG.

VALUE ADDED PER EMPLOYEE (PLN THOUSAND), 2020



Source: Eurostat, Structural Business Statistics and data by STRABAG

The scale of operations facilitates STRABAG's efficiency. **The nationwide presence And simultaneous work at over 600 construction sites** allows specialisation within the company and optimisation of the use of staff or equipment. Moreover, as part of a European company, STRABAG in Poland participates in the development of the most effective solutions applied at the EU level. **Behind the high performance of STRABAG there are also numerous innovations, the results of research work and a focus on future solutions.** These include, inter alia: **the BIM concept** concerning modelling of building information (STRABAG used the BIM concept in many projects, i.e.: expansion and modernisation of the Bielański Hospital in Warsaw, construction of a new building for the Polish Embassy in Berlin works at the junction of the S19 road in the Lubelski region and

at an overpass of the A1 motorway), or the practical application of the **LEAN concept** (which impacts all processes during a construction projects), i.e. through the use of a system enabling visualisation of the planned workflow for the next weeks. The application of a LEAN concept by STRABAG has reduced the duration of projects by an average of 10%. The company also boasts the use of many and various technologies impacting both the efficiency of solutions, as well as the care for the environment – this are described in more detail in the "The future – STRABAG's contribution to innovation, digitalisation and sustainable growth in Poland" chapter. STRABAG's performance directly translates into a positive impact of the company on the Polish economy and society.



## THE POSITIVE IMPACT OF STRABAG

**The efficiency of the company brings first and foremost benefits for the millions of people who enjoy the results of STRABAG's work.** However, the ultimate verification of the performance of any company is the demand of customers for its products. The 35 years of STRABAG's growth in Poland show that the activities of the company are highly appreciated by its customers. Moreover - since a significant part of STRABAG's portfolio includes public projects, their implementation is the result of the won tenders. Every tender won by STRABAG means that if another company had been selected during the tender, this particular project would have been carried out on less favourable terms. In other words - without STRABAG's efficiency, there would have been less public money for fewer motorways, expressways, local roads or many other facilities built by the company.

Each such project has a measurable impact on the daily lives of the hundreds and sometimes even tens of thousands of people who use them. **Every day, more than one million people benefit from STRABAG's work.** The largest share in this number includes naturally projects of national importance, such as motorways and expressways, but there are also thousands of smaller projects, often extremely important for the local communities. This is the very factor which distinguishes STRABAG from the biggest construction companies - the open approach to the cooperation with local authorities, also in projects with a smaller unit value. Over the last eight years for which comparable data is available, STRABAG has completed an average of 379 local authority projects each year, ranging from local road repairs to bridge and school construction.

### THE NUMBER OF PEOPLE USING FACILITIES BUILT BY STRABAG EVERY DAY

STRABAG is a companion to many Poles every day. More than one million people a day use roads made by the company. The group also builds and upgrades other facilities of great public utility. Below are some examples of STRABAG projects with the average daily number of users:

A2 motorway	<b>107 thousand</b>
A4 motorway	<b>100 thousand</b>
Galeria Katowicka Shopping Centre	<b>38 thousand</b>
Katowice railway station	<b>30 thousand</b>
Warsaw East railway station	<b>24 thousand</b>
E30 railway line in Kraków	<b>15 thousand</b>
Piotrkowska Street in Łódź	<b>10 thousand</b>

Every day,  
more than  
one million  
people benefit  
from STRABAG's  
work

\*Deloitte estimates - the sources and methodology are available in the final section of the report.

The high work productivity at STRABAG in Poland allows high salaries to be paid. The average salary of people working at STRABAG in 2022 was over 9,200 PLN<sup>4</sup>, namely by nearly 2,600 PLN more than the average for the company sector<sup>5</sup> in this period. Moreover, this is not just a question of the scale of operations - the figures for 2021 allow comparisons with large companies, employing 250 and more people, where the average salaries are higher. STRABAG also performs very well against this background, with salaries 1/4 higher than the average for large enterprises<sup>6</sup>.

4 The value for employment contracts, which account for more than 96% of contracts with employees

5 The average salary in the company sector in 2022 was nearly 6,700 PLN; ONS (2023), Average employment and salaries in the company sector in December 2022

6 ONS (2022), Activity of non-financial enterprises in 2021



As an international company, STRABAG SE employs staff of more than 85 different nationalities. Open dialogue is a fundamental part of the company culture. In Poland, STRABAG employs both people taking only their first steps in their professional career, as well as specialists and experts in their fields. With young people in mind, the **Summer Internship Programme - Summer** was created and has been successful for four years. STRABAG runs

a parallel **Ambassador programme** aimed at students who, because of their full-time studies, cannot yet take up a permanent job, but already get the inside opportunity to learn how a construction company operates. Each participant has the opportunity to continue their professional development as a construction engineer at STRABAG after completing their apprenticeship and reach the next steps in their career.

STRABAG cooperates with universities and technical universities throughout Poland, organising competitions and construction site tours for students. STRABAG also organises meetings and discussion panels presenting work in the construction industry from a female perspective.

To ensure the safety of staff, including mental well-being, STRABAG undertakes a range of activities in its health management programme (e.g. health days or on-line courses). The company offers its employees specialised training, subsidised language courses and subsidised licences.

“I am a water and wastewater technologist by my education. I have been working at STRABAG for 21 years. I started as an assistant engineer for sanitary installations, and then I held an independent position during the construction of a multi-storey office building in Warsaw. The next stage was the bid preparation department, followed by the implementation of projects for key customers. The participation in the “Project Manager Academy” training series allowed me to broaden my knowledge of management and communications. I keep setting boundaries for myself and try to push them. Construction is a job that you mentally do 24 hours a day and I accept that.”



**Agnieszka Wszyńska**  
Technical Director of the STRABAG Group

“I am a construction graduate from the Warsaw University of Technology. Before joining STRABAG’s bridge management, I have worked at design office for 6 years, initially still as a student. In the end, I set my sights on one, but strong card and I joined STRABAG, where I have worked for 16 years. The first years in field work were very intense. I started as a construction site engineer and managed staff teams in practical work. At that time I was also learning construction site management. The subsequent projects have been more interesting and complex, both technically and logistically. Each successive construction site brought new challenges and , as a result, a great feeling of satisfaction. I have always thought that a true manager must be able to talk to the staff, lean into their problems and sometimes “get their boots dirty”.

**Marcin Czuba**  
Contract Manager in the bridge industry



**The group runs the adASTRA programme** - which supports employee entrepreneurship and enables funding for start-ups. It enables employees with interesting, innovative business ideas to receive financial support for their implementation.

**STRABAG is a member of many employer organisations (not only in the construction sector):**

- Employers of the Republic of Poland
- Polish Association of Construction Industry Employers
- German-Polish Chamber of Industry and Commerce (AHK Poland)
- Agreement for Construction Safety
- Polish National Chamber of Commerce for the Road Industry
- Polish Road Congress Association
- Railway Business Forum
- Polish Alternative Fuels Association

Globally, the group is also the winner of many awards for employers. In 2022, STRABAG in Poland was awarded the Highest Quality HR 2022 certificate by the Polish Human Resources Management Association (PSZK). This document certifies that the company is a good, reliable and credible employer, applying the latest solutions in the area of human resource management. Among the award-winning employers, trend-setting organisations setting out trends and promoting high standards in human resources in Poland stand out.

The Polish Human Resources Management Association (PSZK) also organises the "Highest Quality Internships and Placements" competition every year, in which STRABAG regularly participates. The SUMMER IN STRABAG summer internship programme organised by the HR department has been extremely popular with candidates for several years.

## Awards for STRABAG in Poland as an employer



**STRABAG companies in Poland ensured mover PLN 0.71 billion of revenue for the public finance sector**

STRABAG's efficiency means higher state revenues. Thanks to its efficiency, STRABAG not only makes more efficient use of the taxpayer money, but is also itself a significant tax and contribution payer. This effect goes well beyond the CIT that STRABAG companies in Poland paid in 2021, in the amount of over PLN 100 million<sup>7</sup>. High added value generated in the company translates into high VAT revenues (PLN 217 million) and, above all, high revenues from PIT, social and health insurance revenues. High efficiency of STRABAG allows the payment of high salaries, which are the basis for

income tax and contributions, one of the main sources of revenue for the public finance sector. The total income tax and contributions from jobs created by STRABAG amount to PLN 366 million. Together with other, smaller levies (such as property tax and local taxes), **STRABAG companies in Poland provided more than PLN 0.71 billion in revenue for the public finance sector**, i.e. simply speaking - for the state budget, local authorities, Social Insurance Agency or the National Health Fund.

**STRABAG has its main office in Pruszków, where the company is one of the largest taxpayers - the tax due from STRABAG Polska sp. z o.o. for 2021 is the equivalent of 1/8 of the city's CIT revenue.** In 2021, it amounted to PLN 1.8 million, which is comparable to the total amount allocated to the Civic Budget in the city of Pruszków. The company is also responsible for the implementation of many projects benefiting the residents of the Pruszków County - both local projects (housing estates, roads, the Sports and Leisure Centre or the Heritage Centre) and expressways running through the county, of national importance.



<sup>7</sup> The amount actually paid into the budget in 2021; because of the form of advance payments made during the year and subsequent settlement in the following year, the taxes due for the year are not equal to the value paid in the given year.

# STRABAG CONTRIBUTION TO THE DEVELOPMENT OF POLISH ECONOMY

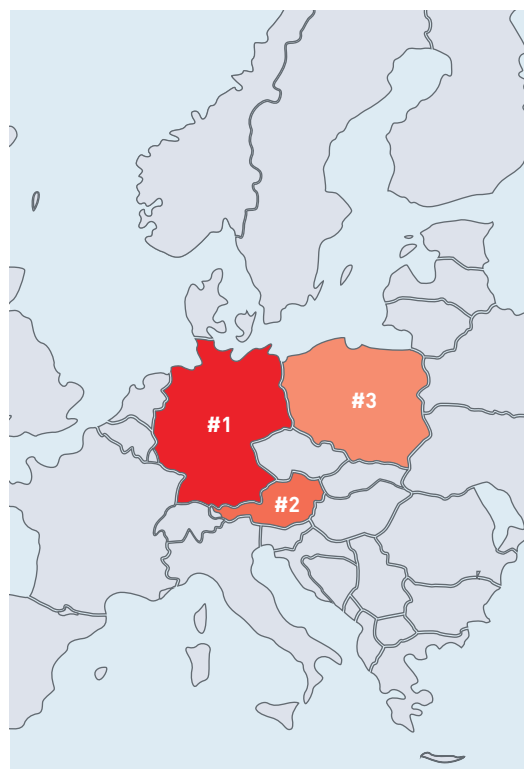
STRABAG is a company present in Polish economy for years, working towards modernisation of the construction sector in the country and Polish economy in broader terms. The introduction of global innovations in Poland by the company and its systematic work towards implementing the best Western standards of investment execution in our country have made a positive impact on the construction sector. At the same time, the high-quality facilities built by STRABAG make a much broader contribution to the modernisation of Polish economy.

## HOW IS STRABAG CHANGING THE POLISH CONSTRUCTION SECTOR?

### STRABAG in the world

STRABAG SE is a European construction company with almost 180 years of tradition. Through its network of companies, STRABAG operates in many European countries and increasingly also on other continents. **Today, the company employs over 74,000 people from all over the world**, developing innovations in the field of general and infrastructural construction. Poland is the third most important market for STRABAG (after Germany and Austria).

**STRABAG constructs buildings, public and industrial facilities, roads, bridges, tunnels, railways and hydrotechnical structures.** The company keeps on redefining and creating construction to become the most innovative and -climate-neutral construction company in Europe. STRABAG strives to create a space for its employees to implement ideas and undertake challenges together, with future-oriented projects.



Source: STRABAG Integrated Report, 2021

### STRABAG in Poland

The STRABAG Group started operating on the Polish market in 1987, with the preparations for the construction of the Marriott Hotel in Warsaw. It currently employs almost 6,800 people and has an annual revenue of PLN 5.07 billion. **The portfolio of projects currently underway amounts to nearly PLN 8 billion.** In addition to its headquarters in Pruszków, the company has regional branches in all provincial cities. STRABAG sp. z o.o. is a Polish company and an active tax payer in this country, benefiting from the experience, know-how and standards of the European STRABAG Group. Over the years, the company has expanded into multiple construction and related industries, forming a holding company including companies involved in:

- road construction
- building construction
- railway construction
- manufacture of bituminous mixtures
- development of real estate projects (STRABAG Real Estate)
- facility administration (STRABAG PFS)
- aggregate and gravel extraction (Mineral Polska)
- rental of machines and equipment (STRABAG BMTI)
- research (the company has its own TPA Technical Research Institute)
- high-tech pavement modernisation (SAT)

Over the 35 years of its business in Poland, STRABAG has had a significant impact on the development of Polish economy

STRABAG's position as part of a European group facilitates the development of the construction sector in Poland. It allows the effective use of international experience and, through this, the transfer of know-how to national subcontractors and employees<sup>8</sup>. This, in turn, supports productivity growth and efficiency improvements in the sector. In particular, it facilitates the introduction of the latest technological solutions and management standards to the common use.

As a European company, STRABAG is committed to the highest standards in construction and strives to promote them in Poland. The Group applies supranational common standards applicable to business compliance or occupational safety. At the same time, it takes steps promoting these solutions in Poland and fostering the transfer of good practices developed by other companies. STRABAG also promotes rigorous standards within the framework of compliance, requiring subcontractors to meet requirements similar to those it meets itself. In terms of occupational safety, the company has established cooperation with other Polish companies under the Agreement on Safety in the

Construction Sector. This activity results in tangible benefits: according to the ONS data, the accident rate per 1,000 employees in the construction industry decreased since 2007 from 12.65 workers to 4.56 in 2021, while the sector share of all accidents at work decreased from 9% to 6%.

The company is a significant contributor to the development of sustainable construction in Poland. Over the years, it has made numerous efforts to minimise the consumption of natural resources, energy and raw materials by introducing innovative solutions. Some of the more interesting, implemented projects include modified asphalt or the use of photovoltaic panels in the construction of the Kasprzaka tramway line in Warsaw, which made it possible to cover 50% of the energy requirements for the construction site. STRABAG aims to generate as little waste as possible during its construction processes. The company actively promotes recycling, analyses environmental and energy data and implements appropriate eco-friendly solutions, e.g. using products with an Environmental Product Declaration (EPD).

## HOW THE EFFECTS OF STRABAG'S WORK SERVE THE GROWTH OF POLISH ECONOMY?

STRABAG's high standards contribute to the development of the construction sector, while the facilities built by STRABAG support the modernisation and continued development of Polish economy. Over 35 years, STRABAG has been responsible for projects with extremely varied scale and scope. In addition to projects of national importance, such as the construction of hundreds of kilometres of motorways and expressways, STRABAG has constructed thousands of kilometres of local roads, crucial for local communities. The scope of the projects

has been as varied as their scale - from the construction of boulevards in Malbork, through a car factory in Września, to the Dental Clinical Centre in Lublin. The high level of company activity in the implementation of smaller investments, mainly for local authorities, distinguishes STRABAG among the largest construction enterprises. During its 35 years of business in Poland to date, STRABAG has had a significant impact on the development of Polish economy.

Considering only the period from 2020 onwards, **STRABAG has started more than 1,500 projects** implemented for local authorities and private partners, including:



**1400 km of**  
country and  
municipality roads



**180 km of**  
expressways  
built



**120**  
bridges  
built



**125 km**  
of railway  
lines

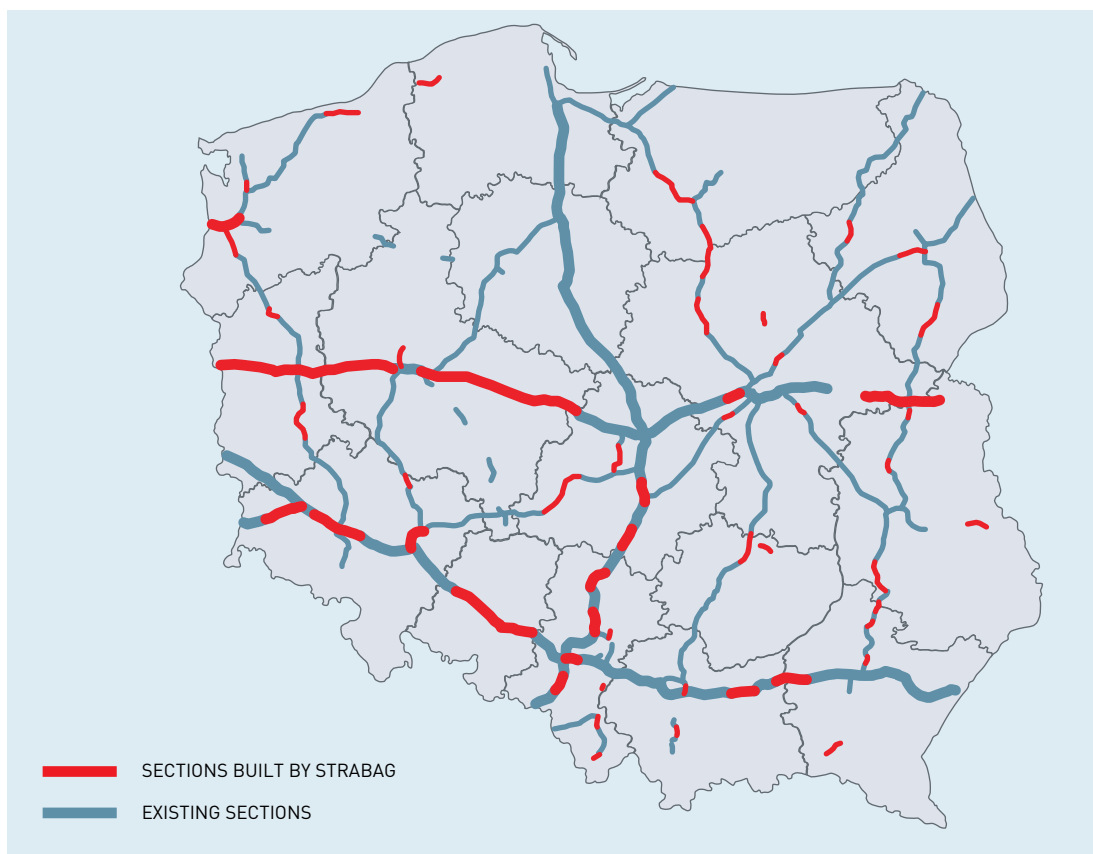
<sup>8</sup> These mechanisms are documented in a number of academic papers, see e.g. Bruno R.L., Cipollina M. (2018), A meta-analysis of the indirect impact of foreign direct investment in old and new EU member states: Understanding productivity spillovers, *World Economy* 41(5), pp. 1342-1377. <https://doi.org/10.1111/twec.12587>; Iamsiraroj S., Ulubaşoğlu M.A. (2015), Foreign direct investment and economic growth: A real relationship or wishful thinking? *Economic Modelling* 51, s. 200-213. <https://doi.org/10.1016/j.econmod.2015.08.009>; Iwasaki I., Tokunaga M. (2014), Macroeconomic impacts of FDI in transition economies: A meta-analysis, *World Development* 61, s. 53-69, <https://doi.org/10.1016/j.worlddev.2014.03.022>; Lindemanis M., Loze A., Pajuste A. (2019), The effect of domestic to foreign ownership change on firm performance in Europe, *International Review of Financial Analysis* (March 2018), s. 1-15, <https://doi.org/10.1016/j.irfa.2019.04.004>



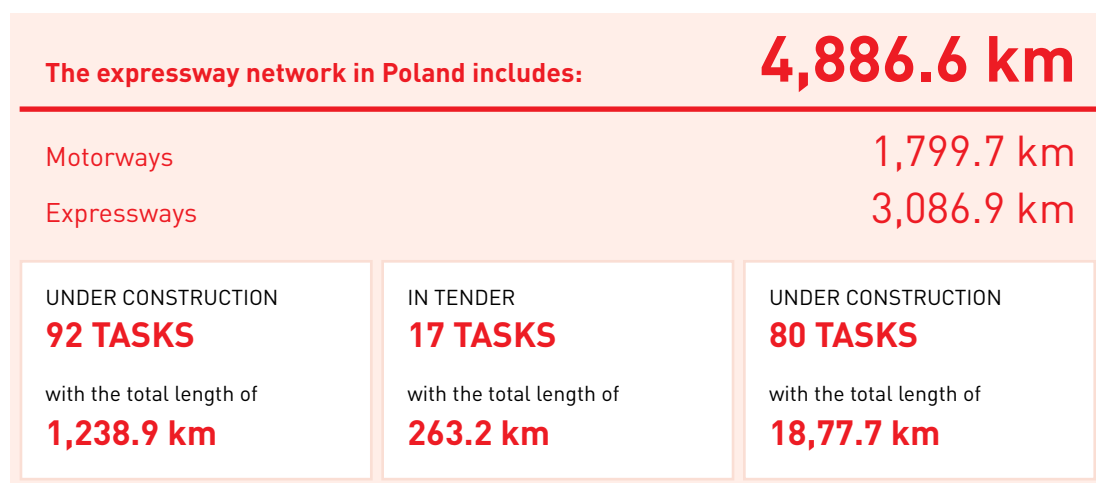
## Motorways and expressways - the lifeblood of the economy

The length and condition of roads in Poland affect the daily lives of millions of Poles. They enable transport for private, family or professional purposes, but also have a significant impact on the wealth levels of the country. Road transport of goods is one of the three largest industries in the Polish economy, alongside wholesale and retail trade. It plays a key role in generation of as much as half of Polish GDP<sup>9</sup>. According to numerous estimates, the rate of return on public investments in roads may be higher than from private capital investments<sup>10</sup>.

Lower costs and better availability of new or upgraded transport infrastructure expand the range of markets for individual companies. Expanded markets more comprehensively integrate new locations and regions into the national economy, the shift of which from local and regional autarky to specialisation and exchange results in increased overall productivity<sup>11</sup>. Investment in road infrastructure is also one of the main drivers of European integration.



NATIONAL ROADS - GENERAL DIRECTORATE FOR NATIONAL ROADS AND MOTORWAYS - THE GOV.PL PORTAL (WWW.GOV.PL)



9 "ROAD TRANSPORT IN POLAND 2021+" REPORT - (tlp.org.pl)

10 A general discussion of this topic may be found i.e. in T.R. Lakshmanan, The broader economic consequences of transport infrastructure investments, Journal of Transport Geography 19 (2011) 1-12.

11 T.R. Lakshmanan, Op. cit.

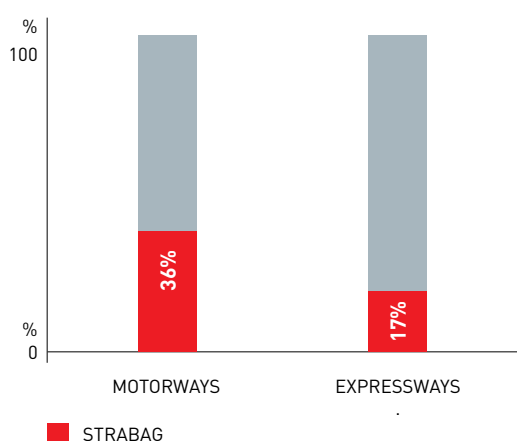
STRABAG is an experienced and recognised contractor building Polish roads. The company is responsible for more than one-third (642.6 km) of the motorways built in Poland and almost one-fifth of the motorways - this means that every fourth kilometre of fast roads in Poland has been built by STRABAG. This means hundreds of thousands of vehicles travelling on the roads built by this company for the country every day. Additional 125 kilometres of expressways are currently under construction. By winning public tenders and offering road building at the best prices, the company works efficiently, building more kilometres at a cost lower than its competitors.

	Motorways	Expressways	Fast roads combined
Poland	1,799.7	3,086.9	4,886.6
STRABAG	642.595	527.804	1,170.399
	<b>36%</b>	<b>17%</b>	<b>24%</b>

**The company is responsible for more than 1/3 (642.6 km) of motorways built in Poland and almost 1/5 of expressways**

The road infrastructure is compared to the bloodstream of the economy. The state of roads significantly affects the GDP of countries, especially developing ones, which include Poland. Improved quality of road infrastructure supports GDP growth<sup>12</sup>. New roads reduce costs and reduce travel time, as well as foster the development of conurbations or the increased mobility of workers. This leads, in turn, to a reduction in income disparities between the regions<sup>13</sup>: in Poland, the variability of salaries between the counties has been decreasing steadily since 2005 from over 0.15 to around 0.12<sup>14</sup>. Transport development contributes to trade growth, primarily by deepening trade relations with the neighbours<sup>15</sup>. In recent years, the relative volume of exports to GDP in Poland has increased from 40.1% to 57.9% in 2021, mainly through the growth of trade with neighbours within the European Union<sup>16</sup>, and the route between Poland and Germany (in both directions of goods flow) has become, in addition to the Germany-Netherlands route, the main sphere of trade exchange in road transport in the European Union<sup>17</sup>. Along this key direction, STRABAG was involved in the building of 60% of the A2 motorway and nearly 30% of the A4 motorway.

SHARE OF STRABAG IN POLISH ROADS



Source: STRABAG own data, GDDKiA data: General information on the national road network - General Directorate for National Roads and Motorways - the Gov.pl portal ([www.gov.pl](http://www.gov.pl))

Road accidents are another factor linking roads and economic growth - in 2021, the cost of road incidents was estimated at PLN 39.3 billion (around 1.5% of GDP)<sup>18</sup>. Road quality is one of the main factors influencing safety, after behavioural factors. In Poland, the length of roads and their quality have increased over the years, which can also be attributed to an increase in road safety. The number of accidents has more than halved: from over 57,000 accidents in 2000 to less than 22,000 in 2022<sup>19</sup>.

Safety improvements can also be seen near the motorways. As the results of a study by the Institute of Geography and Spatial Planning of the Polish Academy of Sciences show<sup>20</sup>, fast roads improve safety not only on the road, but also on national, parallel roads. This is due to traffic gravitating towards the main route. This phenomenon contributes the most to the appreciation of the proximity of expressways by local communities, even if the residents themselves do not regularly use them.



12 P. Melo, D. Graham, R. Brage-Ardao, The productivity of transport infrastructure investment: A meta-analysis of empirical evidence, *Regional Science and Urban Economics* Volume 43, Issue 5, September 2013.

13 T.R. Lakshmanan, Op. cit.

14 Deloitte calculations based on ONS data.

15 The World Bank, *Reshaping economic geography*, USA, 2009.

16 ONS data.

17 Eurostat data.

18 National Road Traffic Safety Council, *Valuation of the costs of accidents and road collisions on the road network in Poland at the end of 2021, with separated, average social and economic costs of accidents on the trans-European transport network*, <https://www.krbrd.gov.pl/koszty-wypadkow-drogowych-w-polsce-w-2021-r/>, 2022.

19 Police, *Road accidents - yearly reports - Statistics* - the website of Polish Police force ([policja.pl](http://policja.pl)).

20 Ministry of Regional Development Warsaw, *The impact of construction of motorways and expressway on the social, economic and territorial development of Poland*, <https://www.ewaluacja.gov.pl/>, 2013.

## The A2 motorway



**WATCH THE VIDEO**

**STRABAG was involved in the construction of more than 60% of the entire A2 road, the second longest motorway in Poland.** It is a part of the international E30 route, connecting Western and Eastern Europe. Based on the data made available by the General Directorate for National Roads and Motorways, it can be approximated that over 100,000 travellers pass through the sections built by STRABAG every day.

The section Świecko - Nowy Tomyśl built with the participation of STRABAG is particularly noteworthy. It is a unique section in the country

with a length of approx. 106 km - it was one of the first projects of its kind built in Poland under the Public-Private Partnerships. The section allowed to reduce travel time between Poznań and Berlin by approximately 2 hours. Even according to conservative estimates, the total value of time saved per year means the savings of almost PLN 300 million for those using this road<sup>21</sup>. It was built with particular concern for the environment - 25% of the total investment was spent, inter alia, on the construction of approximately 200 crossings and culverts for large and small animals.

## S19 Janów Lubelski – Lasy Janowskie

**STRABAG, using state-of-the-art digital solutions, built i.e. an eight-kilometre section of the S19 expressway.** Due to the very broad scope of the executed tasks (including logging, demolition, earthworks, surfacing, engineering works, discipline-specific works), the project was selected in a pilot programme involving the application of modern solutions in the area of digitalisation - including Building Information Modelling (BIM), a surface model of the road for the control of construction machinery, Works

Manager and Vision Link (for effective management of the machine fleet and more efficient implementation of the production process). The cooperation between STRABAG Digitalisation Office (playing a key role in the implementation of the programme) and the construction was based on a partnership and was carried out on a very high level. As Paweł Szyszka, the construction site manager, emphasised - this was a model example of good cooperation.

The A2 motorway



<sup>21</sup> Estimated based on the ONS data on the average earnings in the national economy in 2022 and OECD data on the average yearly work time in Poland in hours. The benefits of time saved was assumed to be 33% of the hourly wage based on M. Wadman, P. Chintakalya, G. de Jong, D. Ferrer, European Wide Meta-analysis of Values of Travel Time, University of Leeds, 2012. The number of users was determined on the basis of GDDKiA data on the average daily traffic load for the E30 route.

## Bridges and viaducts - an essential link

Bridges are an essential part of roads, and the competence in their construction is one of significant competitive advantages of STRABAG. Twenty years of experience and independence in the field allow us to undertake a wide variety of bridge building projects. **The share of Bridge Directorate projects in the portfolio of STRABAG for 2022 is nearly PLN 0.5 billion<sup>22</sup>**, and the historical, total value of built bridges exceeded PLN 7 billion. This amount includes both facilities of national importance, such as the bridge over the Vistula River along the Trasa Nowohucka (S7) route in Kraków, the construction of which cost more than PLN 0.5 billion, and significantly

smaller projects, but of great local importance, such as the bridge at ul. Czołgistów in Łębork, which cost more than 100 times less. The larger and more recognisable projects by STRABAG, in addition to Trasa Nowohucka, should also include viaducts and bridges w along the S7 and S16 routes near Ostróda, the River Oder road bridge along the S3 road in Cigacice or the River Nogat bridge in Malbork. Currently, the construction of three arch railway bridges over River Vistula is also being finalised as a part of the reconstruction of the E30 railway line in Kraków.

### Bridge over River Vistula along the Nowohucka route, Kraków

As a part of the S7 Nowohucka route under construction, STRABAG was also responsible for building the longest bridge over River Vistula in Lesser Poland. **Some 7,400 tonnes of reinforcing steel and approximately 39,300 cubic metres of concrete were used to construct it.** The new bridge over River Vistula has reduced travel times for travellers, improved safety and relieved congestion on city streets.

A number of innovative technical solutions were used during its construction, both in terms of the superstructure and the road surface. The bottom layer was made according to an innovative technology, used for the first time in Poland along an 11-kilometre section of the S8 Opacz - Paszków expressway. The top layer of the asphalt pavement, on the other hand, was made of asphalt with added rubber. As a result, the sustainability of the project has been extended by almost a half, with no increase in expenses of the Investor.





### Road bridge in Toruń



The transport and installation of the arches was one of the biggest construction challenges in the bridge sector for STRABAG, which was responsible for building the road bridge in Toruń. The two arch spans, 270 metres long each, weighing approximately 2,700 tonnes each were installed at the river bank and then shifted onto special pontoons and transported by tug boats

to the installation location and precisely placed on the previously built support. The result is a bridge over River Vistula, an ornament of the city of Toruń and a winner of numerous awards. **The bridge was awarded the 2013 Bridge Work of the Year by the Polish Association of Bridge Builders, the title of Titan 2014, the Maximilian Wolf award and was awarded the honorary medal of the Mayor of Toruń, THORUNIUM.**

### Historic bridge in Trzebiatów

STRABAG also builds local bridges, which - despite their smaller scale - can be a complex undertaking. The bridge repaired by STRABAG in Trzebiatów is included in the register of historical monuments, so the work intended to repair the façade, railings and the decorative elements of the bridge is carried out under supervision

of a monument conservator. At the same time, this investment, one of the largest investments in Trzebiatów, will result in many benefits to the residents. The renovation is intended not only to restore the historical qualities of the structure, but also to improve traffic comfort by opening up traffic to cars in both directions<sup>23</sup>.

### Viaduct over the Pucka Street, Gdynia

A long-standing problem for the inhabitants of Gdynia is the communication of its northern part with the rest of the city. For many years, the Kwiatkowski overpass remained the only road in the western part of the city allowing free passage towards the port without having to wait at the turnpikes. The residents regularly complained that waiting times could reach up to half an hour. The viaduct built by STRABAG is expected to provide an alternative to the overpass, starting already from the second quarter of 2023. The investment will lead to significant time savings at this crossing, up to several minutes. It is also expected to improve safety for pedestrians and cyclists by taking them over the railway tracks<sup>24</sup>.

**The tender for this investment won by STRABAG resulted in savings of around PLN 4 million for Gdynia compared to the budget planned for this investment.** As part of the project and in addition to the viaduct itself, STRABAG is going to build two traffic lanes, a pedestrian pavement, a cycling path, rebuild the sanitary and rainwater drainage system along with other underground networks and install new lighting.

<sup>23</sup> The Town Hall in Trzebiatów, Signing of the agreement for the repair of the historical Dolphin Bridge, <http://www.trzebiatow.pl/asp/podpisanie-umowy-na-remont-zabytkowego-mostu-z-delfinami,2,artykul,5,6135>, 2022.

<sup>24</sup> STRABAG, STRABAG with the agreement for the viaduct built along Pucka Street in Gdynia [https://www.STRABAG.pl/databases/internet/\\_public/content.nsf/web/4FFB9A5D32A54E03C1258686004FBB96](https://www.STRABAG.pl/databases/internet/_public/content.nsf/web/4FFB9A5D32A54E03C1258686004FBB96), 2021.

## Railways - environmentally friendly transport

STRABAG is involved in the accelerating modernisation of rail transport in Poland. Its **current contribution includes over 300 km of upgraded and built railway lines** (i.e E30 in Kraków, E59 in Poznań or E20 in Warsaw), railway stations, communication junctions, including some of the most important Polish railway stations, such as Katowice, Warsaw East or the entire surrounding infrastructure of such sites.

Rail transport in Poland is starting to grow, partially reversing the past trend<sup>25</sup>. In the long term, there is an apparent decline in the length of railway lines - from 1991 to 2017 a total of 3,733.164 km of railway lines disappeared across Poland<sup>26</sup>, which was accompanied by a significant shift towards road transport - for example, the weight of goods transported on roads in 2021 was ca. 8 times higher than in railway transport. However, despite the large difference in the volume of transported goods, over the last few years we could observe a systematic growth in the transported rail freight tonnage (in 2019 it was 236.4 million tonnes, in 2022 - 248.6 million tonnes<sup>27</sup>). Passenger transport is similarly on the rise - 2021 in terms of passenger transport was closed at 342.2 million passengers, which is a value almost 100 million higher than the previous

year, exceeding even the 2019 level. We can therefore speak of a return to the upward trend in passenger transport, observed prior to the outbreak of the COVID-19 pandemic.

It is very likely that rail transport will continue to grow in the coming years. Poland is implementing a National Railway Programme worth PLN 76 billion, with a significant contribution of EU funds intended for the modernisation of the railway infrastructure. Railway also gains interest in the context of raising awareness of environmental risks. The European Environment Agency<sup>28</sup> specified, that in Europe, transport contributes a 23% share of anthropogenic emissions of carbon dioxide across the continent. The largest part of the emissions (about 76 per cent) originates from road transport, which includes cars and lorries. Aviation and marine transport generate 12 and 14 percent, respectively, of CO<sub>2</sub>, making railways the least carbon-intensive mode of transport, accounting for 0.4 per cent of carbon dioxide emissions. This is not much compared to alternative forms of travel - trains produce eight times less carbon dioxide per passenger than airplanes and three times less than cars.



### Railway Station and Galeria Katowicka

The railway station built by STRABAG, together with the adjacent shopping centre, is one of the most important and modern transport hubs in Poland. **In terms of passenger numbers, it is the fourth largest station in Poland, having served more than 11 million passengers in 2021.** On the other hand, Galeria Katowicka is one of the largest shopping centres in Katowice - it has seven levels and houses 250 shops and service points, 26 cafés and restaurants, as well as 10 cinemas and parking spaces for 1,200 vehicles.

STRABAG was also responsible for the design and construction of the underpass and the road infrastructure around the project area. **The building was voted as the best in two categories: Building of the Year CEE 2014 and Retail Development of the Year 2014.** In the new station design, special attention was paid to accessibility for people with disabilities.

25 Rail Transport Authority, 2022 on the railways - rebuilding passenger transport after suffering, <https://utk.gov.pl/aktualnosci/19701,Rok-2022-na-kolei-odbudowa-przewozow-pasazerskich-po-pandemii.html>, 2023.

26 ONS data.

27 Rai. Transport Authority, Dane eksploatacyjne, Przewozy towarowe - Dane eksploatacyjne - Portal statystyczny UTK, 2023.

28 European Environment Agency, Statistical Pocketbook, 2022.

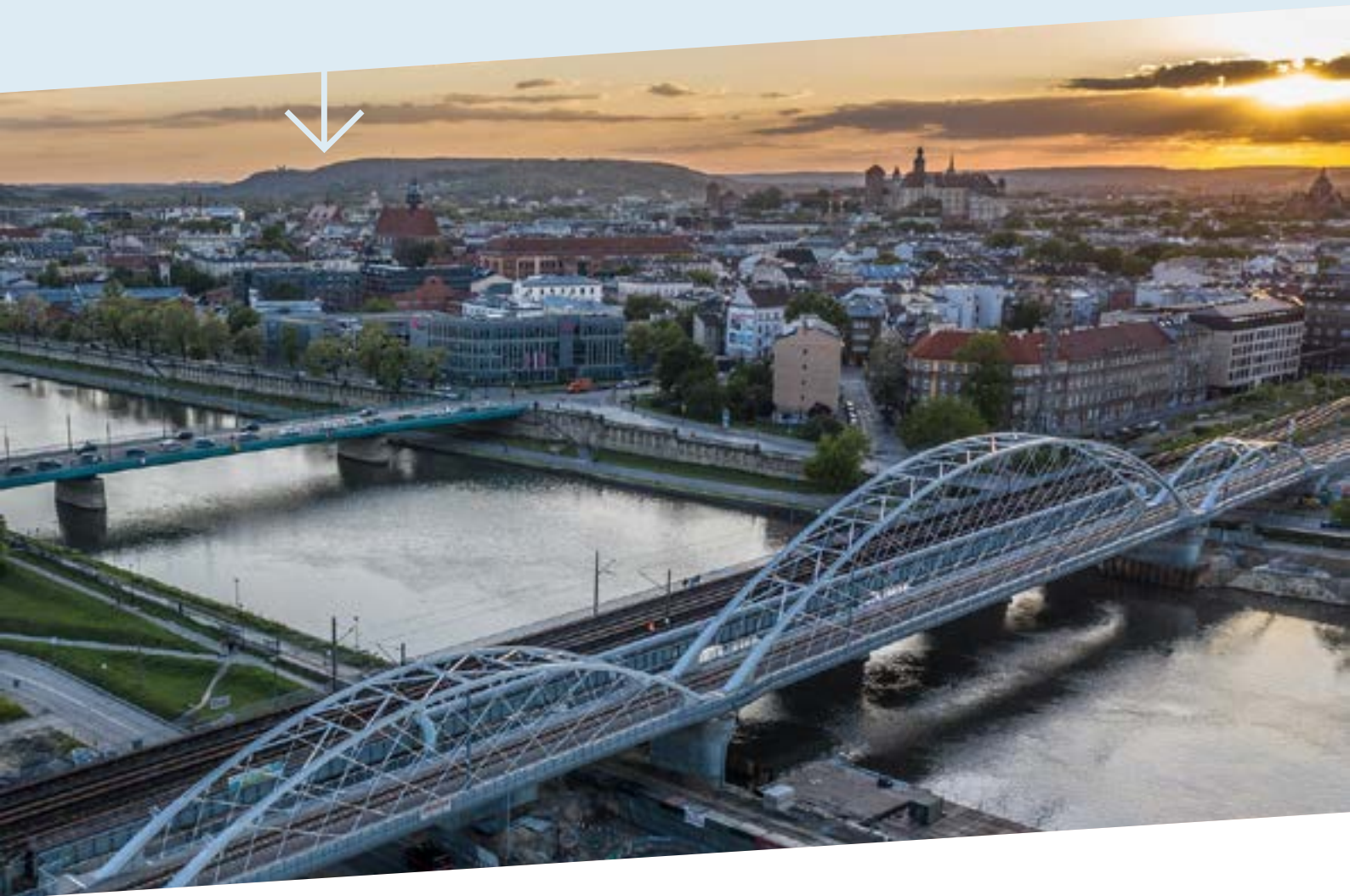
### Modernisation of the E30 route in Kraków



WATCH THE VIDEO

Modernisation of the E30 route in Kraków - the largest (as of 2017) railway investment in Poland. **Approximately 15,000 people travel this route every day<sup>29</sup>**. A consortium including i.e. STRABAG Group companies intends to upgrade the 20-kilometre section, including building tracks of the conurbation line, two additional stops, including one at Grzegórzki - the biggest interchange hub in Kraków after the main station. The investment also includes the construction of two railway bridges over River Vistula, each over 220 metres long.

The works will involve a total of 55 engineering structures, including bridges, viaducts, culverts, overpasses and footbridges. The railway bridge project in Kraków has been nominated for the grand prize in a competition organised by the international non-profit organisation International Association For Bridge And Structural Engineering (IABSE).



### E59 Modernisation of the E59 Poznań-Szczecin railway line



WATCH THE VIDEO

STRABAG is also responsible for modernising two sections of the E59 railway line with a total length of more than 51 kilometres. This extremely important link is part of the E59 international trunk line running from southern Europe to Scandinavia and is one of the elements of the Trans-European Transport Network (TEN-T), which includes not only railways, but also roads, airports, sea ports, river ports, waterways and transshipment terminals.

In both tasks, STRABAG is supposed to build a total of 15 new bridges, 3 viaducts, 1 underground passage and upgrade a total of 16 railway crossings. The modernisation of the E59 line, strategic in terms of transport, is intended to make train journey times between Poznań and Szczecin shorter and thus improve access to the Szczecin-Swinoujście ports. **The project will increase the speed of each train running along this section by 40 km/h (from 120 km/h to 160 km/h for passenger trains; freight trains from 80 km/h/previous h to 120 km/h).**

<sup>29</sup> Assuming 142 trains per day, including 101 trains of Małopolskie Railways, 28 of PKP Intercity and 13 of Polregio, with average weighted numbers of passenger seats in the trains of these companies and 50% seat occupancy.

## Local roads - crucial for local communities

STRABAG makes an important contribution to the construction of local roads. They are a key complement to the emerging Polish motorway and expressway network. Their condition is particularly important when it comes to road safety: they see ca. 80% of accidents<sup>30</sup>, and their development and repairs are indicated as one of the reasons behind the improved safety statistics<sup>31</sup>. The development of the local road network also encourages economic activity. In particular, it reduces the entry barriers, which encourages business growth<sup>32</sup>.

The company prides itself on its road projects for local authorities, executed in various scales. STRABAG was responsible for one of the most important road projects in the Podlasie region - the Tysiaclecia Avenue in Białystok and the reconstruction of a dangerous intersection into a roundabout in Poniec. Only in the 2020-2023 period, in all provinces, STRABAG cooperating with the local authorities, has built<sup>33</sup>:

# 816 km

of provincial and county roads, including, for example

- Extension of provincial road 837 (**16.4 km**)<sup>34</sup>
- Grodzisk Mazowiecki Ring Road (**7.3 km**)<sup>35</sup>
- Extension of DW-858 in Nisko County (**6 km**)<sup>36</sup>

# 484 km

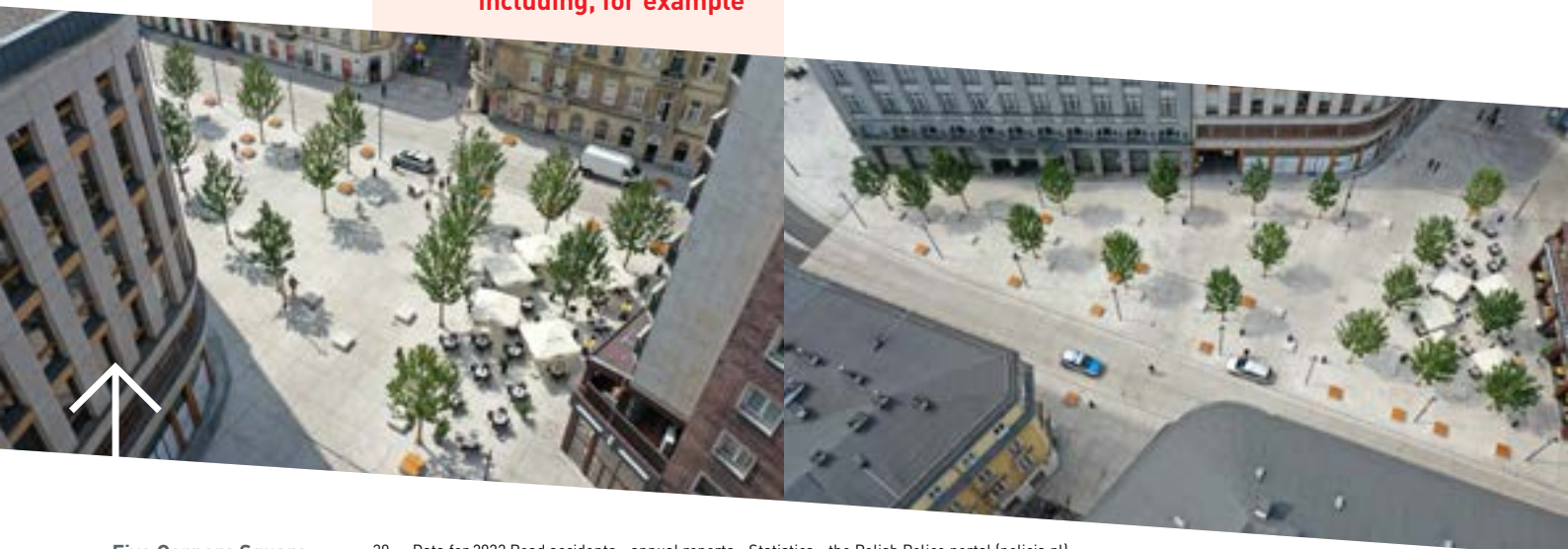
of municipal roads, including, for example

- Road modernisation in Rogożajny Mate to the borders of Marianka Village (**3 km**)<sup>37</sup>
- Re-construction of the Bargłów – Białobrzegi municipal road (**3 km**)<sup>38</sup>
- Extension of the Zaolzie inner road (**1 km**)<sup>39</sup>

# 132 km

of urban streets/roads, including, for example

- Extension of the Five Corners Road in Warsaw<sup>40</sup>
- Preservation repairs of streets at the Old Town in Zamość<sup>41</sup>
- Extension of Św. Wawrzyńca street in Poznań (**1 km**)<sup>42</sup>



Five Corners Square  
in Warsaw

30 Data for 2022 Road accidents - annual reports - Statistics - the Polish Police portal (policja.pl).

31 NIK, Road safety, <https://www.nik.gov.pl/plik/id,7572,vp,9503.pdf>, 2014.

32 S. Gibbons, T. Lyttikäinen, H. G. Overman, R. Sanchis-Guarner, New road infrastructure: The effects on firms, *Journal of Urban Economics* 110, 2019.

33 STRABAG own materials.

34 STRABAG, STRABAG completed the extension of the provincial road No. 837 between Nielisz and Sitaniec, [https://www.strabag.pl/databases/internet/\\_public/content.nsf/web/PL-STRABAG.PL-STRABAG%20uko%C5%84czy%C5%82%20rozbudow%C4%99%20drogi%20wojew%C3%B3dzkiej%20nr%20837%20na%20odcinku%20Nielisz%20%E2%80%93%20Sitaniec](https://www.strabag.pl/databases/internet/_public/content.nsf/web/PL-STRABAG.PL-STRABAG%20uko%C5%84czy%C5%82%20rozbudow%C4%99%20drogi%20wojew%C3%B3dzkiej%20nr%20837%20na%20odcinku%20Nielisz%20%E2%80%93%20Sitaniec), 2020.

35 STRABAG, Grodzisk Mazowiecki Ring Road (2020-2023), [https://www.strabag.pl/databases/internet/\\_public/content.nsf/web/PL-STRABAG.PL-PROJEKT-Drogi%20krajowe%20i%20obwodnic-Obwodnica%20Grodziska%20Mazowieckiego%20\(2020-2023\)#?men1=2&men2=undefined&sid=200&h=undefined](https://www.strabag.pl/databases/internet/_public/content.nsf/web/PL-STRABAG.PL-PROJEKT-Drogi%20krajowe%20i%20obwodnic-Obwodnica%20Grodziska%20Mazowieckiego%20(2020-2023)#?men1=2&men2=undefined&sid=200&h=undefined), 2023.

36 Infrastructure market, STRABAG will extend the DW-858 in Nisko County, <https://www.rynekinfrastruktury.pl/wiadomosci/drogi/STRABAG-rozbuduje-dw858-w-powiecie-nizanskim-85340.html>, 2023.

37 Suwałki24, Wizajny. STRABAG will rebuild two municipal roads, [https://www.suwalki24.pl/article/1.wizajny\\_STRABAG\\_przebuduje\\_dwie\\_drogi\\_gminne](https://www.suwalki24.pl/article/1.wizajny_STRABAG_przebuduje_dwie_drogi_gminne), 2023.

38 Augustów Municipality, Official opening of the municipal road 102640B Bargłów – Netta Pierwsza – Białobrzegi, <https://gmina-augustow.home.pl/wp/uroczyste-otwarcie-drogi-gminnej-nr-102640b-barglow-netta-i-bialobrzegi/>, 2020.

39 Istebna Municipality, Official opening of the newly extended section of the municipality road Zaolzie stage II, [https://www.istebna.eu/turysta/news/uroczyste-otwarcie-nowo-rozbudowanego-fragmentu-drogi-gminnej-zaolzie-etap-ii\\_1](https://www.istebna.eu/turysta/news/uroczyste-otwarcie-nowo-rozbudowanego-fragmentu-drogi-gminnej-zaolzie-etap-ii_1), 2021.

40 STRABAG, Re-development of the Five Corners Square in Warsaw (2020-2022), [https://www.strabag.pl/databases/internet/\\_public/content.nsf/web/PL-STRABAG.PL-PROJEKT-Drogi miejskie-Przebudowa Placu PieciuRogow w Warszawie \(2020-2022\)#?men1=undefined&men2=undefined&sid=100&h=undefined](https://www.strabag.pl/databases/internet/_public/content.nsf/web/PL-STRABAG.PL-PROJEKT-Drogi miejskie-Przebudowa Placu PieciuRogow w Warszawie (2020-2022)#?men1=undefined&men2=undefined&sid=100&h=undefined), 2022.

41 STRABAG, Restoration of the Old Town in Zamość (2020-2021) [https://www.strabag.pl/databases/internet/\\_public/content.nsf/web/PL-STRABAG.PL-PROJEKT-Drogi%20miejskie-Remonty%20konserwatorskie%20Starego%20Miasta%20w%20Zamo%C5%Bciu%20\(2020-2021\)#?men1=undefined&men2=undefined&sid=100&h=undefined](https://www.strabag.pl/databases/internet/_public/content.nsf/web/PL-STRABAG.PL-PROJEKT-Drogi%20miejskie-Remonty%20konserwatorskie%20Starego%20Miasta%20w%20Zamo%C5%Bciu%20(2020-2021)#?men1=undefined&men2=undefined&sid=100&h=undefined), 2021.

42 STRABAG, Świętego Wawrzyńca Street in Poznań open to traffic, [https://www.strabag.pl/databases/internet/\\_public/content.nsf/web/PL-STRABAG.PL-PRASA-2022-Ulica%20C5%9Awi%C4%99tego%20Wawrzy%C5%84ca%20w%20Poznaniu%20otwarta%20dla%20ruchu](https://www.strabag.pl/databases/internet/_public/content.nsf/web/PL-STRABAG.PL-PRASA-2022-Ulica%20C5%9Awi%C4%99tego%20Wawrzy%C5%84ca%20w%20Poznaniu%20otwarta%20dla%20ruchu), 2022.



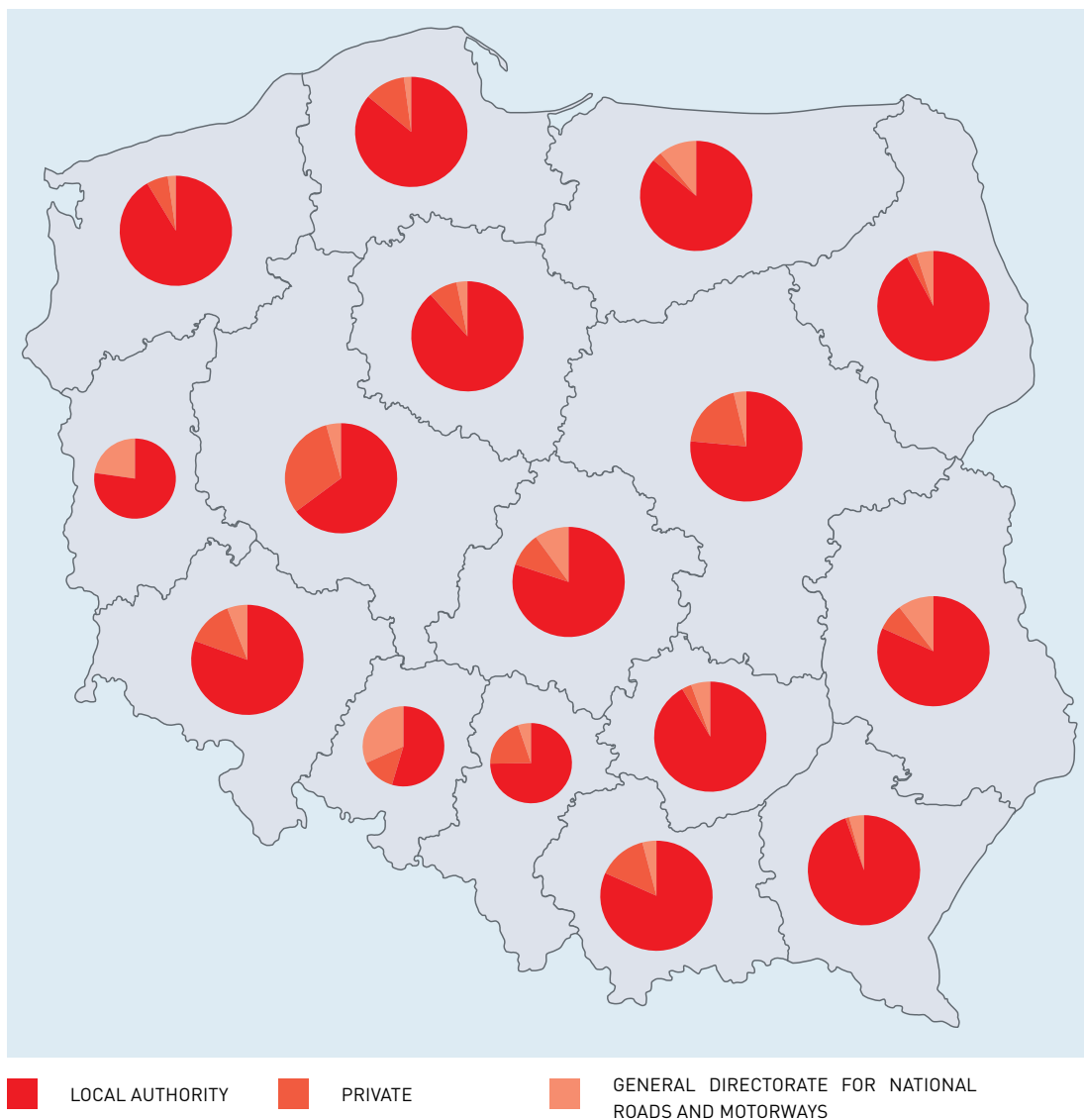
## PROJECTS IMPLEMENTED BY STRABAG FOR LOCAL AUTHORITIES

**Projects implemented for local authorities are the trademark of STRABAG<sup>43</sup> – over 80% of all executed contracts of the STRABAG Group are executed on their order.** The total number of projects carried out for local authorities between 2015 and 2023 was more than 3,000.

They are present all across the country and in every province. In each region of Poland, cooperation with local authorities forms a major part of the group's project portfolio.

SHARE OF LOCAL AUTHORITY PROJECTS (BY THE NUMBER OF PROJECTS)

Since 2015, the company has implemented local authority projects worth approx. PLN 14.9 billion



Source: Compiled by Deloitte on the basis of STRABAG own data

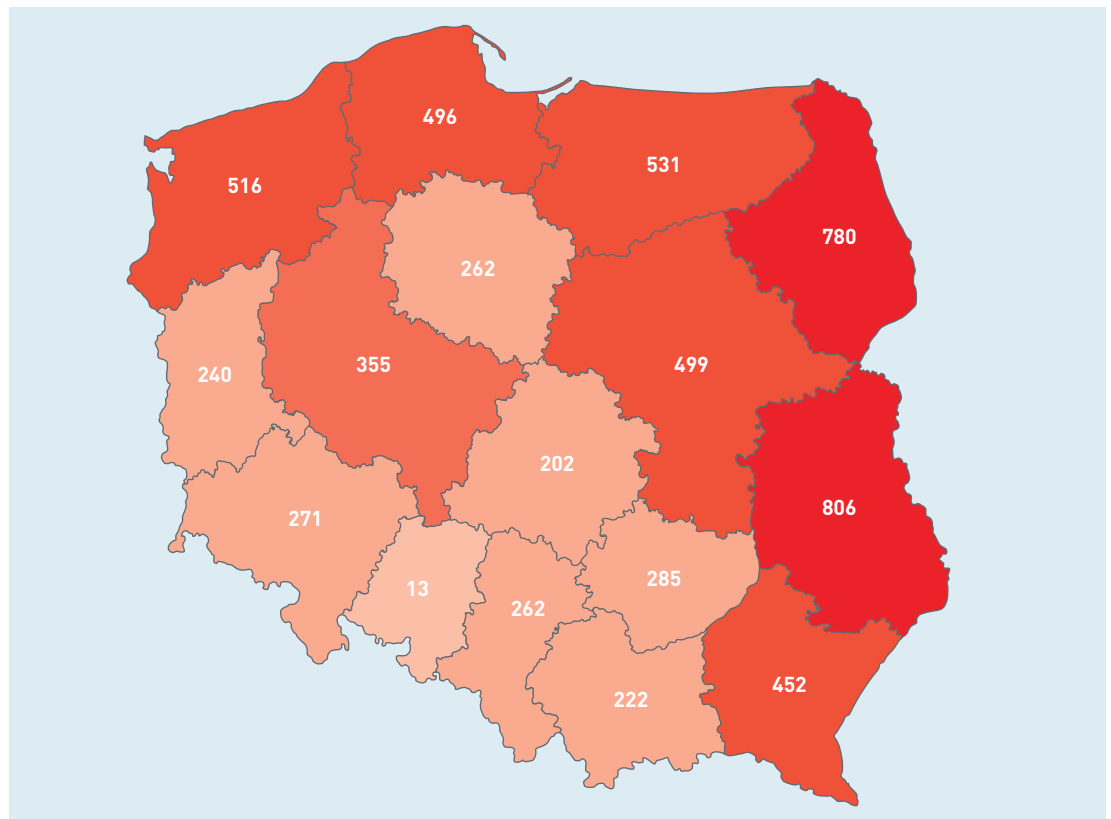
Cooperation between STRABAG and local authority allows taxpayer money to be invested effectively. Since 2015, the company has completed local government projects worth approximately PLN 14.9 billion. Per capita, in Poland<sup>44</sup> this means over 390 PLN. As the economy has recovered from the pandemic, the cooperation became even closer: the value of contracts with local authorities in 2022 was the highest ever

and increased by ca. 25% compared to 2019. At the same time, STRABAG's cooperation with local authorities helps to reduce the development gap between regions. The company executes a particularly large share of its projects in Eastern and Northern Poland. In per capita terms, it executed the largest projects for the local governments of the Lubelskie and Podlaskie provinces.

<sup>43</sup> We share the road with local authorities - rp.pl

<sup>44</sup> ONS data on population for 2021.

THE VALUE OF LOCAL AUTHORITY PROJECTS EXECUTED BY STRABAG CALCULATED PER CAPITA



Source: Compiled by Deloitte on the basis of STRABAG own data

STRABAG carries out a wide variety of projects for local authorities. In addition to the construction and reconstruction of local roads and streets, the recent years included hospitals, tramway infrastructure, schools or sports facilities. Extensive cooperation with local authorities results from STRABAG's ability to individually approach the projects, depending on the specifications and the needs the project.

EXAMPLE LOCAL CONSTRUCTION PROJECTS:



Medical facilities:

- Bielański Hospital Warsaw
- Southern Hospital Warsaw (as a partner in a consortium)
- IAAM Hospital Legionowo
- Ophthalmology Ward WIM Warsaw
- Institute of Dentistry, University of Medical Sciences in Lublin



Interchange hubs:

- Integrated Interchange Centre, Stargard
- Extension of the transport system in the city centre, Rzeszów
- Car parks at ul. Dziewulskiego and ul. Olimpijska, Toruń



Urban infrastructure:

- Piotrkowska Street, Łódź
- Fast Tram, Szczecin
- Kasprzaka Tramway, Warsaw
- 5 Corners Square, Warsaw
- Boulevards, Słupsk
- Boulevards, Malbork
- Al. 1000 Lecia PP, Białystok
- ul. Kwiatkowskiego, Gdynia
- Upper Route, Łódź
- Głębokie Junction, Szczecin
- Gdańska Street, including the Pomeranian Overpass, Szczecin



Buildings

- Swimming pool at ul. Kromera, Bydgoszcz
- Olympic Swimming Pool, Łódź
- Metropolitan Primary School, Kowale near Gdańsk
- Primary School No. 10, Pruszków
- T. Kościuszki High School in Pruszków
- Athletics stadium for the Ślęza Sports Club, Wrocław
- Municipal waste management facility, Orli Staw

## Trams - green city transport

In recent years, there has been a renaissance of trams in Poland. STRABAG can boast expertise in this field thanks to its numerous projects related to the construction of tramway transport infrastructure. Through its projects in Szczecin, Warsaw or Grudziądz, it is contributing to the development of tramways in Poland, which are not only a green but also an economical solution. Trams are powered

solely by electricity, the nominal passenger capacity of a tram carriage is comparable to 40 cars (assuming 1.5 passengers per car), and the useful lifetime of trams is much longer than that of buses - the latter need to be replaced every dozen years or so, while trams, with proper maintenance, serve for up to several decades<sup>45</sup>.

### Szczecin Fast Tram

With the implementation of the Szczecin Fast Tram (SST) project, STRABAG has established the position of Szczecin as the speed leader in Poland - according to the Szczecin Roads and Transport Authority, the SST reaches a maximum speed of 70 km/h<sup>46</sup>. As a result of the construction of the new tram line, 80,000 residents of the right bank part of the city now have access to rail transport. **The project, which was the most important investment in Szczecin in recent years, included the construction of a viaduct in addition to almost 8 kilometres of track and overhead power lines, footbridges and a pedestrian tunnel under the tracks with ramps for disabled users.**

The project also required the relocation of the historic Gruneberg Villa, which involved unconventional technical and organisational solutions. The listed building had to be moved by 45 metres, due to the collision of its location with the newly executed project. STRABAG carried out a spatial laser recording of the existing building shell, and, in cooperation with a member of the Zentrale Technik Group in Vienna, it developed the technological design for the relocation of the villa to a different location, onto new foundations. The relocation operation lasted 15 hours with an average speed of 3 m/h. The building was then placed at the appropriate ordinal coordinates and a concrete cast connecting the ceiling above the basement with the foundation walls was made.

“As always, we put our competence, strength, knowledge and experience of the Group at the disposal of the public. The implementation of the Szczecin Fast Tram project, including the Gruneberg Villa relocation operation, required us to use many unconventional technical and organisational solutions. It is therefore with great satisfaction that we have completed the project implemented by STRABAG, which will certainly contribute to the shorter commuting time for residents, both to the city centre and to the neighbouring districts. It should also be noted that thanks to the excellent financial situation of STRABAG Group, in agreement with the PKO BP bank, we were able to carry the full financing of the project throughout the execution period, i.e. for two years, without the involvement of public funds.”



**Wojciech Trojanowski**

Member of the Management Board of STRABAG Sp. z o.o.

<sup>45</sup> Łódzki Tram Zalety komunikacji tramwajowej - Łódzki Tramwaj Miejski, [portal.tramwaj1.pl](http://portal.tramwaj1.pl)  
<sup>46</sup> Radio Szczecin, Is the Szczecin Fast Tram the fastest in Poland?, <https://radioszczecin.pl/1,362672,szczecinski-szybki-tramwaj-najszybszy-w-polsce-w-szczecinie>  
 - Radio Szczecin, 2017.

### New tram line in Warsaw at Kasprzaka Street



A tramway at Kasprzaka Street will render the transport in Warsaw more smooth. **The STRABAG-led project includes both the construction of the new track at Kasprzaka Street, reconstruction of the line along Wolska Street, reconstruction of the junction and the north carriageway of Kasprzaka Street and the construction of 10 tram stops.** In addition, the new tramway line will gain a green touch thanks to the plants planted along the track. The first part of the route has been completed and released for use in January 2023, the entire project will serve the people of Warsaw as early as 2024.



## Monuments - the new life of historic and heritage sites

Historic buildings require special care and expertise during construction work. Thanks to the implementation of many projects related to historic buildings, STRABAG can boast of not only experience, but also trust from local authorities. Such projects include i.e. preservation repairs of the Melchior Stefanides Square and Łukasieńskiego

Street in Zamość in the "A" zone of conservator protection, the bridge in Trzebiatów entered onto the list of heritage sites, Piotrkowska Street renovation, or the design and Boulevard construction at the Malbork Castle – a site entered onto the UNESCO list.

### Piotrkowska Street in Łódź

Piotrkowska Street is a place unique not only in Poland, but also in Europe. This symbol of the city of Łódź and one of the longest shopping streets on the continent is visited by between a dozen and several tens of thousands of people a day. Thanks to the selection of STRABAG's offer, the city saved approximately PLN 12 million on the renovation of the street compared to the original budget. **In addition to the construction of the carriageway and the pavements, the scope of the task included the construction of a lighting system, a stormwater drainage system, as well as plants, including 105 trees.**



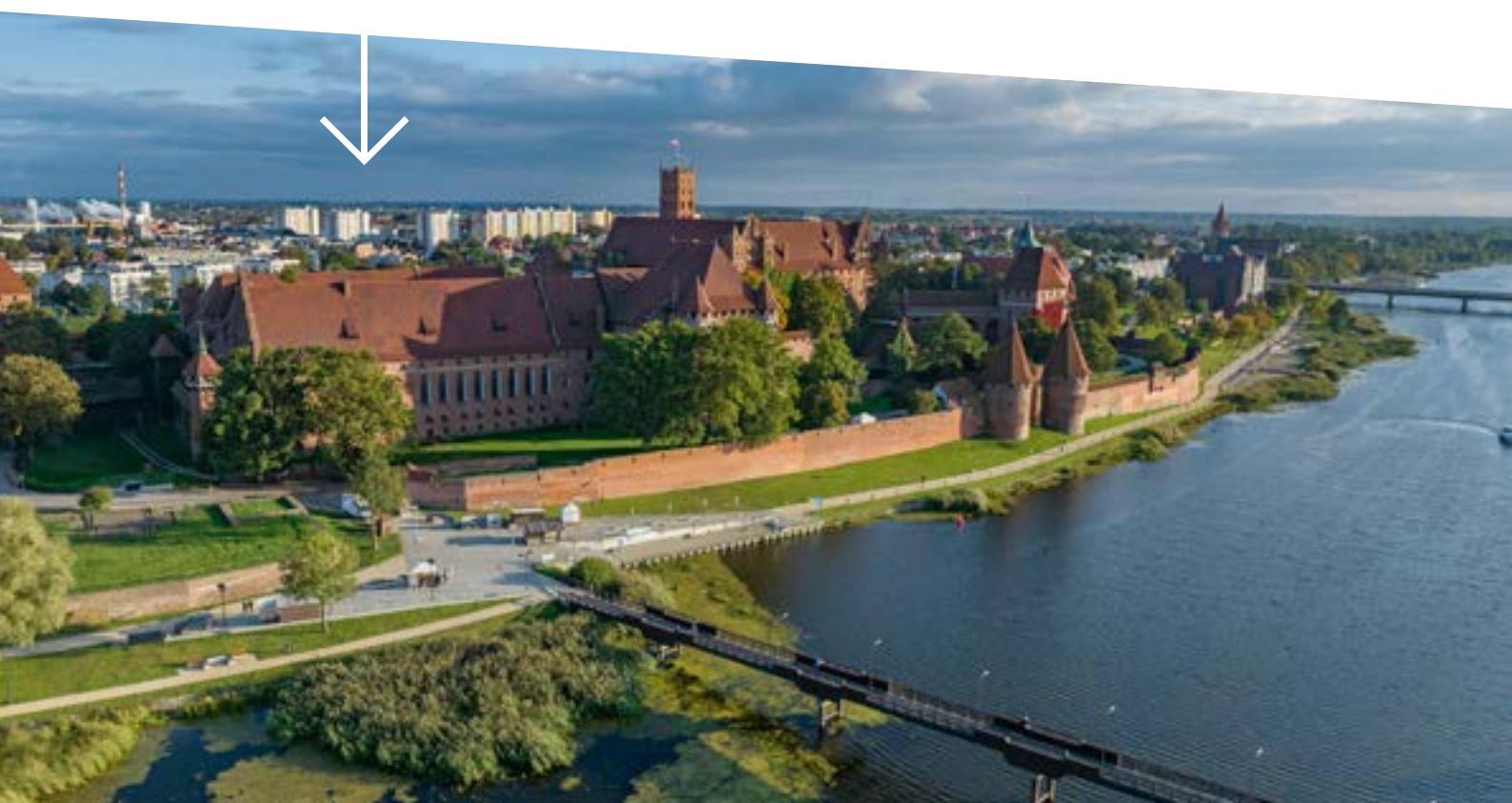
### Boulevards in Malbork



**WATCH THE VIDEO**

Despite the local scale of the undertaking, the Malbork boulevards project was unique due to the immediate vicinity of the Malbork Castle walls (a UNESCO site). The project required not only ongoing consultation, but also changes during the course of the project. An example of a challenge that STRABAG had to face occurred after a detailed examination of the soil substrate - we had to redesign the in-depth reinforcements in order to ensure the safety of the structure.

**The project was successfully executed by STRABAG and rewarded i.e. with the prestigious Infrastructure and Construction Diamond award as the project of the year in the Road Construction category.** The Malbork boulevards have become a venue for meetings, events and physical activity for Malbork residents, including the weekly sports event Parkrun.



## Healthcare facilities

The construction of medical facilities requires specialised knowledge and a thorough analysis of needs, already at the design stage. The portfolio of STRABAG includes numerous such facilities, confirming the experience and expertise in the construction of hospitals, clinics and other healthcare facilities. These included the newly built wing of the Bielański Hospital in Warsaw, the WIM

Hospital in Legionowo or the Ophthalmology Clinic of the Military Medical Institute, as well as the largest and one of the most modern A&E Wards in Mazovia - the Hospital Accident and Emergency Ward in Radom. The building is intended to meet the highest standards, be a comfortable medical care facility that complies with current legal standards.

### Modernisation of Bielański Hospital in Warsaw



**WATCH THE VIDEO**

STRABAG is responsible for the construction of a new wing at Bielański Hospital, which is the largest hospital run by a local authority in the capital. The emergency department sees and admits approx. 100,000 patients every year. **The newly constructed wing, a five-storey building with almost 10,000 square metres, will allow the expansion of medical activities and contribute to the modernisation of the Hospital.** The new part will include a psychiatry ward for adult patients, a rehabilitation ward, a block with 10 operating theatres, an intensive care unit, a central sterilisation room and laboratories.

Information Modelling) principles. The concept of BIM is based on an approach to the design and implementation of projects that allows continuous and immediate access to building data and matches the Smart City idea implemented in the capital city of Warsaw. It is a solution that enables constant access to a digital 3D model of the site at any stage during the construction and offers a communication platform to manage the design, execution and record-keeping. In addition, once the project is completed, the hospital will be able to be managed using a Facility Management application based on the developed BIM models.

The project under construction is the first smart hospital facility in the city to be built according to BIM (Building

**"The modernisation and expansion of Bielański Hospital is the first in Warsaw and the only hospital in Poland built according to BIM principles. Furthermore, this smart building will be managed in the future using the Facility Management system we are providing. I am convinced that we will make full use of our experience gained during medical projects and projects carried out using modern digital platforms in this case."**



**Waldemar Wójcik**

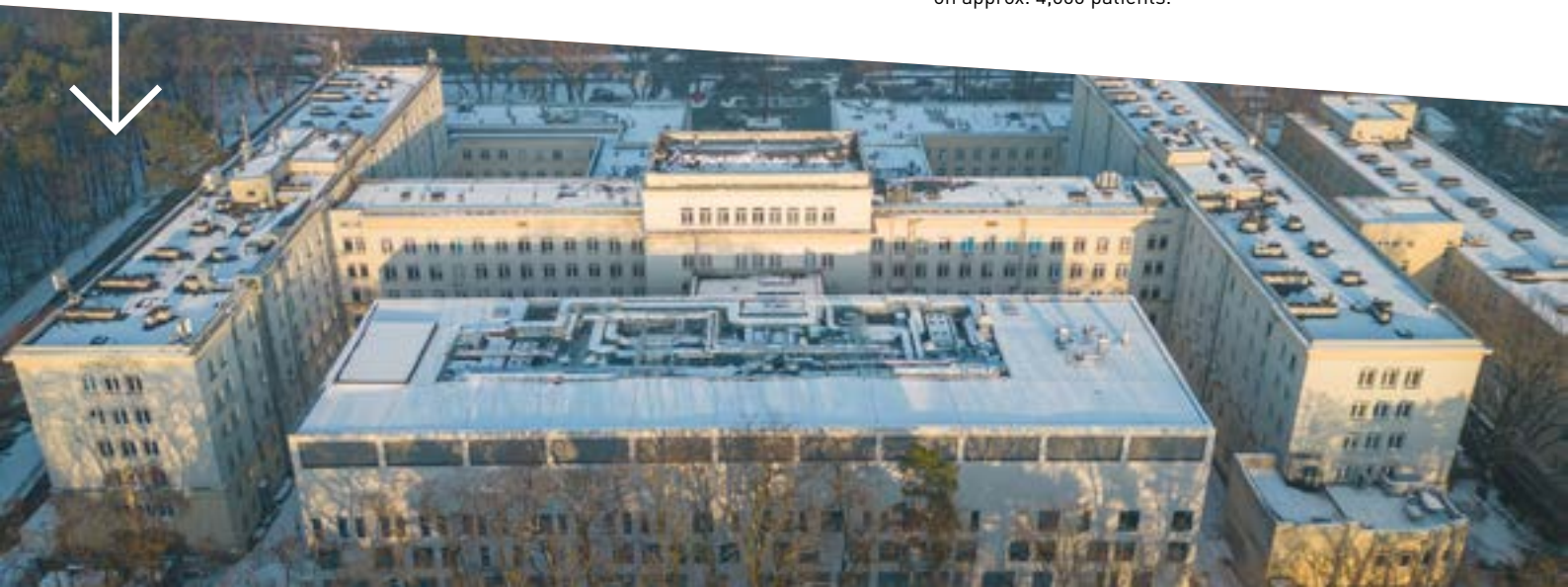
Member of the Management Board of STRABAG Sp. z o. o.

### Ophthalmology Clinic, Military Medical Institute

The Ophthalmology Clinic of the Military Medical Institute built by STRABAG is one of the leading ophthalmology clinics in Poland. This trans-regional facility, with a total surface area about the size of a football pitch, specialises in state-of-the-art

treatments for the most difficult ophthalmological cases (cataract, glaucoma, corneal, reconstructive surgery and cancer treatment). The clinic admits ca. 7,000 patients every year, and offers outpatient care to 34,000 patients. It carries out major procedures on approx. 4,600 patients.

Bielański Hospital  
in Warsaw



## Environmental facilities

**STRABAG has extensive experience in the construction of environmental facilities.** Noteworthy here is the participation of the company in projects in two areas - water, wastewater and waste management. Both sectors are crucial, not only in terms of environmental protection, but are also an essential component of the functioning of society. STRABAG gained experience by participating,

inter alia, in the improvement of water and wastewater management in the Mystowice and Zabrze municipalities, the expansion of the water and wastewater network in Łódź, the construction of a thermal waste conversion plant in Olsztyn, the Orli Staw biogas plant or the construction of the Przegalina barrage.

### Orli Staw biogas plant

The Orli Staw biogas plant is the first installation in Poland designed for the continuous fermentation of selectively collected bio-waste. The core of the project includes the expansion of the existing regional waste processing centre (ZUOK) "Orli Staw" with anaerobic digestion. **In addition to electricity and heat, the site shall generate valuable compost from fermentation products, according to the new EU Fertiliser Regulation, also effective in Poland.**

In addition, the produced compost will meet the requirements of the new EU Fertiliser Regulation - the entire investment is executed in line with the European "Closed Economy" policy and the "Zero Waste" approach. The investment will help municipalities achieve the recycling levels required by national and European law<sup>47</sup>.

### Municipal waste treatment plant in Tychy

The Tychy plant was designed and built according to the proprietary STRABAG technology. It is one of the most modern facilities of its kind in Europe. The project involved the implementation of innovative waste treatment solutions, including the LARAN® dry methane fermentation technology patented by STRABAG. It is a key component of the operation of the plant, enabling waste to be converted into biogas, thanks to which the site creates green energy - both electricity and heat - which is used by the facility for its own purposes and sold to the grid.

**The scope of work included the construction of a segregation hall with a mechanised mixed waste sorting system and a fuel component recovery line and an RDF fuel production line, a hall and organic fraction fermentation reactors, oxygen stabilisation and composting hall, a state-of-the-art air purification station, a co-generation aggregate unit, a construction waste recovery line and a hazardous waste collection point.**

The plant is able to process approximately 84,000 tonnes of waste per year, from which a variety of raw material fractions are recovered and sent for recycling, waste-to-energy (RDF) high-energy fuel and compost or biofuel are produced.

<sup>47</sup> STRABAG, STRABAG Umwelttechnik is going to build another "turnkey" biogas station in Poland, [https://www.STRABAG.pl/databases/internet/\\_public/content.nsf/web/PL-STRABAG.PL-STRABAG%20Umwelttechnik%20wybuduje%20%E2%80%9Epod%20klucz%E2%80%9D%20kolejn%C4%85%20biogazowni%C4%99%20w%20Polsce, 2020.](https://www.STRABAG.pl/databases/internet/_public/content.nsf/web/PL-STRABAG.PL-STRABAG%20Umwelttechnik%20wybuduje%20%E2%80%9Epod%20klucz%E2%80%9D%20kolejn%C4%85%20biogazowni%C4%99%20w%20Polsce, 2020.)

## Commercial and industrial sites

In addition to local authority projects, STRABAG also has extensive experience as a contractor for private entities. **STRABAG boasts extensive hydrotechnical experience.** The company was involved in the re-development of five quays in Gdynia and Gdańsk, which directly translated into their improved functionality, increased capacity and improved safety.

In addition to the wharves, in the context of commercial projects, **STRABAG has also been involved in the construction of three car factories, the Unity Centre business complex, numerous shopping centres** (e.g. Szczecin, Atrium Felicity in Lublin, Zielone Arkady in Bydgoszcz), factories, or the construction of infrastructure for five airports in Poland.

### Unity Centre Krakow



**WATCH THE VIDEO**

**Eagerly awaited by Krakow residents for 45 years, the Unity Centre built by STRABAG, is the largest such complex in the city.** The business centre provides not only office space, but also space for commercial premises, a hotel, flats for rent and a

public space conducive to relaxation. The total surface area of the entire complex, i.e. 50,000 square metres, is comparable to more than seven football pitches.

"The construction of the Unity Centre complex will bring the long history of Krakow's 'skeleton man' to an end. We are delighted that STRABAG will make such a significant contribution to the change of the cityscape. This is a special project in terms of engineering challenges, but we are well prepared for it. Based on a virtual 3D model and a planned schedule for works in a 4D dimension, we have prepared a full animation of the construction works for the site. But this is not our only major project in Kraków - at the end of June we released to the drivers in Malopolska a part of the S7 route for use, including a bridge over River Vistula (the so-called Nowohucka Route), we are also implementing a project upgrading the E30 line along the Kraków Główny Towarowy – Rudzice section, including construction of a conurbation line. It is currently the largest railway investment in Poland"



**Wojciech Trojanowski**

Member of the Management Board of STRABAG Sp. z o. o.





### The VW Crafter factory in Września

The automotive sector is one of the strongest pillars of Polish economy, which in 2019 generated 8% of the GDP and 21% of the export value<sup>48</sup>. Although the COVID-19 pandemic and the war in Ukraine have taken their toll on the sector, automotive companies, in particular representing the aftermarket segment (spare parts and accessories), have reported unexpectedly good results for 2022<sup>49</sup>. **By building a Mercedes plant in Jawor (the first site of its kind in our country), or building two Volkswagen plants and a Man Trucks plant in Niepołomice, STRABAG has definitely contributed to the development of the automotive industry in Poland.** A unique project in this sector carried out with STRABAG's participation was the Volkswagen plant in Września, which at the time was the largest foreign investment in the country. During construction, it required the involvement of more than a thousand experts in the field of construction, logistics, suppliers, equipment operators. It is currently capable of producing approx. 100,000 cars per year.

**The VW plant in Września is also the only production site of Volkswagen Crafter, the winner of the 2017 International Van of the Year award in the world.** The car received up this title even before sales began. In addition, starting from mid-2020, the plant also holds the exclusive rights for the production of a fully electric eCrafter.

Since its establishment, the plant has actively implemented many environmentally friendly solutions - an apiary with 25 hives was created as initiated by the employees, at a former wasteland, and from 2019 the factory has consumed only electricity from renewable sources, recently, the technology of water recovery from painting processes has recently been introduced, saving 4,000 m<sup>3</sup> of water per month - more than the volume of an Olympic swimming pool.



<sup>48</sup> Polish Chamber of Automotive Industry, Automotive industry generates an ever increasing value of the GDP <https://pim.pl/przemysl-samochodowy-generuje-coraz-wieksza-wartosc-pkb/>, 2019

<sup>49</sup> Motofocus.pl & Santander, Industry, trade and services in the automotive sector, <https://motofocus.pl/organizacje-branzowe/109454/branza-motoryzacyjna-po-roku-2022-raport>, 2023.

## STRABAG'S ACTIVITIES FOR THE LOCAL COMMUNITIES

In connection with Russian aggression w Ukraine STRABAG actively joined the help effort – the total value of which exceeded PLN 2.5 million. These consisted, inter alia, of more than 300 tonnes of donations sent to Ukraine, including 32 tonnes of aid donations - dressing materials and food. In addition, 2,800 refugees have found refuge in STRABAG properties located at two sites: Plaza in Kraków and Atrium in Warsaw, and construction containers provided by STRABAG were used at the border with Ukraine. Company vans transported more than 6,000 people from the border areas to temporary accommodation, and humanitarian transports to Ukraine were also organised. STRABAG employees themselves have been highly involved in relief efforts, operating in more than 40 locations in Poland. For its efforts aimed at helping our neighbours from across the eastern border, STRABAG was awarded the Vector of Heart award.



In Lublin, at 39b Krakowskie Przedmieście Street, the so-called "baobab", a space used to exchange the experiences, implement projects and used for meetings of the migrants and refugees, as well as Lublin residents. STRABAG technically adapted the building to its new function. The "Baobab" was created thanks to the involvement of many social actors, international organisations and companies operating in Lublin. The basis of its operation was the experience gained from several years of the work of the Homo Faber Association in the fields of inclusion, activation and social integration of migrants, refugees and Poles. The new space was also created thanks to the involvement of partners such as STRABAG. The company's involvement in this project was rewarded with the Lublin - Heroes medal awarded during the opening ceremony of the "baobab" by Krzysztof Żuk, Mayor of the City of Lublin.



Since 2015, STRABAG has been actively supporting the School and Educational Centre for Blind Children in Laski. The activities of the company have made it possible to provide the best possible conditions for the residents and to support their carers in matters related to the daily maintenance of the centre. The expertise of a construction company was used and work related to the construction of a new car park or renovation the façade of the centre was undertaken. STRABAG as the initiating party managed to invite to the collaboration in this action also 9 other companies from the construction sector and to start shared activities provided by staff volunteers.



## AWARDS AND ACHIEVEMENTS

In addition to the awards for the company as an employer, **STRABAG is also a recipient of many business awards in the field of innovation, occupational safety or awards for its charity involvement.** So far, the group has been awarded for overall activity, smaller projects of local importance (such as the implementation of the Malbork boulevards) and larger projects requiring

considerable financial expenditures. The company has also been repeatedly recognised for its size (revenue), raising safety, quality and innovation standards in the construction industry. The managerial skills of STRABAG's management board have also been recognised in many industry competitions.

Below is a list of the awards the group has received over its 35 years of activity in Poland - for more information, visit the STRABAG Group website:

- Vector of Polish Employers for the construction market leader
- Infrastructure and Construction Diamond for the Boulevards at River Nogat in Malbork
- The Rzeczpospolita 500 list 2022 - 2<sup>nd</sup> place in the Construction and building materials category
- Expert 2022 - trenchless construction
- BZiTb Building of the Year 2021 - First Class Award
- Heart Vector of Polish Employers for assistance provided to Ukraine
- Infrastructure and Construction Diamond - the innovation Leader 2022 category
- Infrastructure and Construction Diamond 2021 - the Technology Leader category
- The main prize in the 20<sup>th</sup> Maximilian Wolff Bridge Competition
- BZiTb Building of the Year 2019 - First Class Award
- Diploma in the 11<sup>th</sup> Maximilian Wolff Bridge Competition
- Organisation looking through the heart 2018
- BZiTb Building of the Year 2017 - First Class Award
- Construction Company of the Year 2018
- Infrastructure and Construction Diamonds 2017
- Builder Awards 2017
- Primus Inter Optimos
- The Infrastructure Market website award
- One Cargo Award
- Manager Award 2016
- Platinum Drill 2005
- Construction Company of the Year 2005
- Construction of the Year 2004.
- Modernisation of the Year 2004
- Construction Company of the Year 2016
- Polish Infrastructure Diamond in the Top Executive of the Year 2015 category
- Construction Company of the Year 2014
- Personality of the Industry 2014 Construction
- Polish Infrastructure Diamond in the Project of the Year category
- Manager of the Year 2014
- Construction Site Manager 2014
- Employer of the Year 2013 in the Construction industry
- Main prize in the Maximilian Wolff Bridge Competition
- Golden Trowel - Construction of the Year 2014
- TYTAN 2014
- Bridge Work of the Year 2013
- Modernisation of the Year 2012
- Feniks 2013
- Modernisation of the Year 2012
- Construction of the Year 2011.
- Build Safely
- Construction Company of the Year 2012
- Construction Company of the Year 2011
- Book of Lists 2012
- Construction of the Year 2010.
- 100 most valuable companies in Poland
- Construction Company of the Year 2009
- Ideal Employer 2009
- Second Diamond
- First Diamond
- Professional Survey 2008
- Platinum Drill 2007
- URBS NOVA
- Safe Construction 2008
- SARP of the Year 2005

# THE FUTURE: STRABAG'S CONTRIBUTION TO INNOVATION, DIGITALISATION AND SUSTAINABLE DEVELOPMENT IN POLAND

The construction sector faces significant challenges related to the necessary green transformation according to the sustainable development rules. STRABAG, as a sector leader, is tackling this challenge with the aim of achieving climate neutrality by 2040. This laudable goal requires the introductions of many innovations, which the company is systematically working on.

## THE CHALLENGES OF GREEN TRANSFORMATION AND SUSTAINABLE DEVELOPMENT



WATCH THE VIDEO

STRABAG is part of the construction sector, which is one of the industries with the biggest environmental impact. This is caused by the indirect relationships to other sectors i.e.: the power and heating sectors, transport or the manufacturing industry, as well as by the complexity of the used products and services required to build a property. The sector accounts for a large proportion of global energy demand, greenhouse gas emissions and

raw material consumption. It is therefore an important area of European Union policy, including European Green Deal (one of the seven key product chain values, indicated in the new EU deal related to the circular economy towards cleaner and more competitive Europe) and the EU Deal regarding the climate objectives for 2030.

The construction sector is responsible, among other things, for:

**38%**

of global greenhouse gas emissions

28% comes from the use of buildings, 10% is related to the energy consumption required for material production and the used technology

**40-50%**

of global raw materials extraction

approx. 3 billion tonnes of raw materials per year

**36%**

of global energy consumption

**86%**

PM<sub>2.5</sub> emissions in cities in Poland

**33%**

of global water consumption

Cement production is responsible for **7%** of the global CO<sub>2</sub> emissions

approx. 4 billion tonnes of cement per year

**35%**

of waste generated globally

Steel production is responsible for **7-9%** of the global CO<sub>2</sub> emissions for

approx. 4 billion tonnes of cement per year

Global warming and regulatory changes have a significant impact on the operating conditions of the construction sector. Thus, we have a two-way relationship - the construction sector affects the climate and climate change affects the construction sector. This is well evident in the commonly used climate risk analysis:

- On the one hand, these are **physical risks**, resulting from the increased exposure of properties to extreme weather conditions, but also from the changes to operating conditions of buildings because of e.g. increasing average temperatures. The need to take these challenges into account (which will increase in intensity over time) is particularly important as newly built properties and infrastructure have a long lifetime. An effective response to physical risks requires both innovation in terms of the used materials and adaptation of the construction process itself, for example to rising average temperatures but also to more frequent heat waves.
- The essence of sustainable development is to reduce the negative impact of human activity on the environment. An important element of this is the **concept of reusing resources within a circular economy**, which will become increasingly important in the construction sector, which is responsible for high consumption of raw materials. Example directions of industry development – in which STRABAG played a pioneering role – may include the use of construction rubble in production of bitumen mixes, use of old tyres to build paved surfaces using rubber granulate or activities towards the reuse of aggregates from railway line structures.
- On the other hand, there are **risks and challenges, but also the opportunities associated with transforming the economy towards more sustainable development** and achieving a climate-neutral Europe by 2050. The legal order in the EU includes a number of regulations in the area of sustainability and standards affecting the construction sector. They will entail a transformation of the construction process and specific emission-limiting measures. Under pressure from national and European regulations, project preparing entities and bodies are already including these issues in their specifications. Their aim is to redirect capital flows to the so-called 'green investments'.
- **Reduction of the negative impact on the environment and surroundings can be understood very broadly.** This also includes activities aimed at improvement of air quality by avoiding dust emissions by, for example, using insulation in the form of EPS panels instead of glass and mineral wool, which have a much poorer performance in this respect. Such measures reduce the negative impact on the environment, but also improve the comfort of building use.

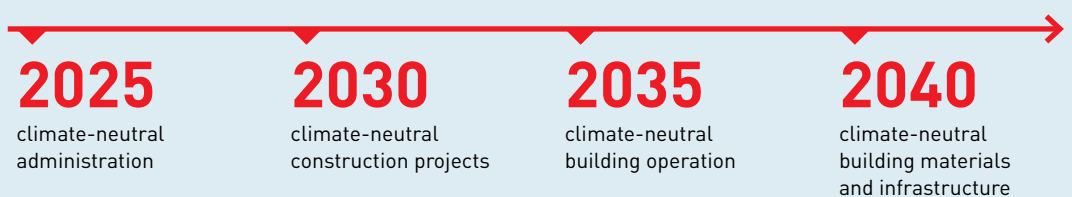


## PROGRESS IN CONSTRUCTION – STRABAG WORK ON PROGRESS AS AN ANSWER TO THE CHALLENGES OF THE FUTURE

As a leading representative of the construction industry, STRABAG accepts the responsibility for the widely understood impact of its activities on the environment and its surroundings. This approach is a response not only to regulatory changes, but also to the changing customer expectations. That is why the new slogan "WORK ON PROGRESS" from STRABAG emphasises

continuous work on development. It means being able to ask the right questions "here and now" to get the answers - innovative solutions that create the construction industry of tomorrow. This is closely linked to the strategic objective which STRABAG, a global company, has decided to pursue.

The goal of STRABAG is to achieve climate neutrality by 2040. This ambitious strategy consists of four successive stages:



STRABAG's strategy sets out the direction for sustainable development of the construction sector in Poland, which has to prepare itself for the redirection of capital flows to the so-called "sustainable investments" (according to the criteria provided for in the Regulation on the EU Taxonomy). In the case of the construction sector, this means that the building process needs to be transformed and concrete measures need to be taken to reduce the emissions. Meanwhile, 29 per cent of industry players have no knowledge of these regulatory changes<sup>50</sup>.

STRABAG introduces product and process innovations in Poland. The company uses innovative construction materials. One of its flagship technologies used in Poland is wet-mixed rubber-modified asphalt for road construction. In this technology, STRABAG uses its own patent for the "Rubberbit" binder, which is used in the construction of both local roads and the A2 motorway. At the same time, this binder is an example of a product facilitating the growth of circular economy, as used tyres are used in its production. STRABAG uses not only modern materials but also innovative working tools, an example of which is the construction of Bielański Hospital according to the BIM methodology.

STRABAG's strategy includes a number of specific measures aimed at climate neutrality. Investment in modern technologies which will allow to **minimise the environmental footprint and make the construction process more efficient** will be the key. The directions of action include reducing the carbon footprint of concrete production, a (significant) reduction of the use of cement as a binder and innovations in asphalt production.

An important development direction will be **more efficient use of resources**, involving modifications of the used materials and their multiple reuse **in the spirit of circular economy**. This includes a **technology change and change of the construction process** – the pioneering activities in this direction are already being undertaken, for example in the Upper One project currently underway in Warsaw, replacing Atrium International. These measures not only contribute to environmental

protection, but also ensure that STRABAG as an industry leader remains an attractive business partner and employer.

STRABAG is active in industry forums working to solve the challenges of the economy of tomorrow. STRABAG's practical experience related to implementation of innovations and acting towards environmental protection presented in public consultations allow more effective public policies to be developed. An example of the tangible effect of such activities of STRABAG and its partners was the development of regulations with the Ministry of Climate to allow the use of road rubble in bitumen production. STRABAG is currently working on the approval of re-use of aggregate from railway lines in the construction process. These solutions are the practical dimension of working towards the circular economy and reducing the carbon footprint.

<sup>50</sup> Regulatory changes are related to the implementation of a Plan of action towards sustainable growth funding by the European Union. On the basis of a survey of entities in the construction sector, operating in Poland, carried out as a part of preparatory work for the report Polish construction companies 2022 – key players, key growth factors and industry growth perspectives by Deloitte. One of the questions in the survey was particularly concerned with the knowledge of specific changes, criteria and obligations imposed on companies by the Ordinance 2020/852 on the establishment of a framework facilitating sustainable investments (Regulation on Taxonomy), also in regards to the construction sector.

## STRABAG INNOVATIONS TODAY FOR TOMORROW

**STRABAG Group all over the world undertakes implementation 250 innovative projects, that they are supposed to support transformation concern towards sustainable development.**

The future brings challenges requiring innovation in many areas. The development of new technologies and the digital transformation generate new products and services, which change the modus operandi of entire sectors and are a source of competitive advantage of companies. The key to effective operation ever more frequently lies in more efficient use of resources. The economy of tomorrow is a circular economy which re-uses the same raw materials over and over again. A huge challenge here is the green transformation - shifting the economy towards climate-neutral and environmentally friendly solutions, which requires reducing greenhouse gas emissions and reduction in the use of fossil fuels. The foundation of the economy of the future must lie in more sustainable development which does not excessively tax the environment, society and future generations. All these challenges are particularly relevant to the construction sector, which accounts for a significant share of global energy and raw material consumption and greenhouse gas emissions. STRABAG is responding to the challenges of tomorrow's economy and has the ambition to be a leader in innovation, transformation and the development of sustainable construction in order to effectively build the economy of the future in Poland.

STRABAG sees an opportunity for a new development impulse in the challenges of the future. Thanks to innovative technologies, it is developing new business models, being a competent construction sector partner for its customers, also in the field of sustainability. By providing efficient solutions and combining environmental and economic requirements (also through the used technologies, materials and processes), STRABAG increases its competitiveness and attractiveness as an employer.

The strategic goal of STRABAG is to achieve climate neutrality by 2040. The road towards this goal leads through innovation - the foundation for change throughout the entire group. For this purpose, the STRABAG Group is executing 250 innovative projects around the world intended to support the transformation of the group towards sustainability. These projects will also be implemented in Poland - these include 3D printers that print lightweight construction components at the site with accompanying low emissions, or CLAir® asphalt binding nitrogen oxides - a breakthrough solution which will ensure clean air and reduced noise in the future.



### **The building of tomorrow and the new philosophy of the construction process: Upper One being built in Warsaw at the site of Atrium International**

It will be the building of tomorrow, the first in the country to be equipped with a geothermal system (a renewable and economical energy source for building heating and cooling). It will also feature many more environmentally friendly solutions, such as air ionisation or adiabatic humidifiers. The tenants will be able to use electric vehicle charging points, and the highest floors - specially designed external terraces. The building will also be constructed on the basis of a new philosophy of the construction process.

The materials from the demolition of the existing site (known as the "crumbling") will be used to build the new foundations - **up to 70% of the waste will be reused**. Such a solution in itself falls in line with the philosophy of reducing negative environmental impact and implementing the circular economy concept (CC). It will also allow to limit the transport of demolition materials and the related greenhouse gas emissions. Many of the materials which previously (in the traditional system) used to go to landfill are provided for re-use. This includes, for example, windows from demolition, which were donated for the the purpose of reconstruction of buildings as a recovery from the war damage in Ukraine, or marble cladding, which will go into the new common areas of the future building. The quality and accessibility of Upper One will be confirmed by three different certifications - LEED Platinum, WELL Building Standard and the "Barrier Free Facility" awarded by the Integracja Foundation.

## Digitisation of the construction process

In recent years, STRABAG in Poland implemented many BIM solutions, facilitating information management throughout the entire project life cycle. 3D modelling, modern measurement methods or a CDE platform were implemented, inter alia.

Carrying out the construction process using BIM (Building Information Modelling) means that a significant part of documentation at the design and construction stages is transferred to a digital environment. **This not only improves work efficiency, but also significantly reduces the amount of paper used and thus the negative impact on the environment.** Modelling allows for more accurate verification of the pre-acquisition quantities at the acquisition stage. The model analysis reduced the risks calculated into the tender offer, while the visualisation based on 3D models ensures improved works planning. 3D design and GIS solutions mean the ability to check

the correctness of the documentation and coordinate the work of the various disciplines faster and more accurately. Modern surveying methods, collected data, use of surveying poles with GPS, drones and scanners make it possible to increase the efficiency of the initial condition measurement and checks of the works. In combination with a road or spatial model, an accurate bill of quantities for earthworks is obtained. During the implementation stage, a comparison of the models with point clouds provides a comprehensive and quick confirmation of the correctness of works and an as-built inventory. The earthworks are carried out according to a model using Machine Control Systems. The use of the CDE platform organises and streamlines communication at the construction site and allows for better control over the site processes.



Similarly, preparing a facility for management through Facility Management platforms has a positive effect. Such construction works are being carried out by STRABAG in Warsaw, for example, where a new wing of the Bielański Hospital is being built. This is one of the first healthcare facilities in Poland, for which BIM requirements were specified already at the tender stage, and the executing team used, inter alia, a CDE data platform, 3D modelling or laser scanning. In addition, the QR code used with selected devices will allow key information stored in the Facility Management platform to be read out while the site is in use.

## Green innovation at the construction site

STRABAG in is a pioneer of new, environmentally friendly solutions applied throughout the group in Poland. An example is the use of photovoltaic panels on buildings at the construction site. Such a solution was used by STRABAG Group for the first time in Poland, at the construction sites of the tramway line in Warsaw, at Kasprzaka Street. In addition to the obvious positive environmental effect, this has also **reduced electricity costs for construction purposes by 50%**. The idea is now gaining in popularity. Such solutions have particularly high potential, especially in locations where access to a connection with sufficient capacity is a challenge. The next step is the use of modular, portable wastewater treatment plants which are currently being tested, allowing treated groundwater to be used for construction purposes and waste water to be reused.



# ANNEX 1.

## THE INPUT-OUTPUT MODEL

**The calculation of economic effects was carried out on the basis of a calculation model prepared on the basis of input-output tables. It reflects the relationships between branches of the economy and makes it possible to estimate which effects across the economy are generated by the activity of a given entity in categories such as value added, employment and household income. The direct impact of the company calculated on the basis of the profit and loss account (the added value created within the company) using the model is supplemented by the indirect impact of the company (the impact of purchases made by the company from further suppliers on the national economy) and the induced impact (the impact of the expenditures of STRABAG employees and the staff of further suppliers on the national economy). The structure of STRABAG links with the rest of the economy was estimated on the basis of the latest available procurement data. Financial data for 2021 were used to calculate the added value generated directly at STRABAG.**

During results interpretation, it is important to bear in mind the different time frame of the direct, indirect and induced effects. The direct effect is the most long-term one - it can be interpreted as added value and jobs that would not have been created without STRABAG.

In the case of an indirect and the induced effect, the nature is more short-term in nature. Although here and now the subcontractors work for STRABAG, in an alternative situation without the company they would find other contractors over time. Similarly, in the case of employees whose salaries drive the induced effect - without STRABAG, their expenditures would have to fall, but over time they would find a new (presumably lower paid) job and start spending again. Therefore, in the case of the indirect and the induced effect, sustaining jobs is a much more precise term than job creation.

In order to fully present the economic impact, we have also collected and aggregated the data on taxes and contributions comprising the revenue of the public finance sector in 2021.

### **Procurement structure - estimated**

The input-output tables for 2015, published by the Office of National Statistics in 2019, were used to simulate the Leontief model. New tables are published every five years, which means that these are the most up-to-date tables available. The figures provided by the Principal have been adjusted for inflation accordingly. STRABAG is responsible for the completeness and correctness of the data provided for the calculations.

The analysis was carried out by the Sustainability & Economics Team, Deloitte Advisory sp. z o.o. sp.k. in the February-March 2023 period.

# ANNEX 2.

## ESTIMATION OF DAILY NUMBERS OF THE USERS OF FACILITIES BUILT BY STRABAG

**The estimation of the order of magnitude of the number of vehicles using roads built by STRABAG was made on the basis of on the General Traffic Measurement (GPR) 2020/2021 survey of the General Directorate for National Roads and Motorways (GDDKiA) and information about expressway sections built by STRABAG.**

The study provided information on the average daily traffic over the year (SDRR) on the selected observation sections and estimated the typical combined load of the road sections (13,574) including division into international roads (25,488) and other national roads (8,746). It also contains detailed information for all measurement sections (81,618 in total). According to the provided data, by the end of 2022 STRABAG had built 68 sections of expressways and motorways. The estimation of the number of people using the motorway sections (A2 and A4 are presented as an example) was based on the selection of the sections of motorways built by STRABAG and choosing those with the highest number of vehicles per day.

Assuming the average section load according to the GPR, the roads built by STRABAG would be used daily by approximately 923,000 vehicles. It should be pointed out, however, that STRABAG was responsible for the construction of sections with particularly high loads. In particular, it was responsible for the construction of most of the measurement section of the S8 road from the Konotopa junction to the Głębocka junction (along the Konotopa-Prymasa Tysiąclecia section), where the SDDR was 104,620-197,813 vehicles/day (the heaviest traffic road in Poland). Assuming that generally sections of expressways and motorways are included in international roads, the number of vehicles using roads built by STRABAG can be estimated at around 1,733,000.

Taking into account, firstly, that a vehicle carries more than 1 passenger simultaneously and, secondly, the proportionally higher share of STRABAG in routes with a higher average load, and taking into account even the issue of potential double counting of vehicles in the adapted methodology (1 vehicle may pass through several measurement sections), it should be concluded that the most likely order of magnitude of the number of persons and vehicles using national roads built by STRABAG on a daily basis is ca. 12 million. Taking into account local roads, of which in the 2020-2022 period alone STRABAG has built 1,432 km, the total numbers of vehicles and people may be even higher. In addition, tens of thousands of people use other facilities built by STRABAG every day, such as e.g. railway stations, shopping centres, hospitals and other public buildings.

### **Sources of approximation for the average daily number of users of STRABAG facilities and sites:**

- A2, A4 motorways - data of GDDKiA<sup>51</sup>
- Katowice Railway Station, Warsaw East Railway Station - data of UTK<sup>52</sup>
- Galeria Katowicka Shopping Centre - an approximation based on an article on the Miasto Pro website<sup>53</sup>
- E30 railway line in Kraków - own calculations by Deloitte
- Piotrkowska Street in Lodz - an approximation based on an article in Dziennik Łódzki<sup>54</sup>

51 General Directorate of National Roads and Motorways, General Traffic Measurement 2020/2021, <https://www.gov.pl/web/gddkia/generatny-pomiar-ruchu-20202021>, 2021.

52 Railway Transport Authority, Passenger interchange at stations, <https://dane.utk.gov.pl/sts/przewozy-pasazerskie/wymiana-pasazerska-na-s/18886,Przewozy-pasazerskie.html>, 2021.

53 Miasto.pro, Galeria Katowicka counted the visitors. Every single one one, Galeria Katowicka counted the visitors. Every single one | Miasto.pro, 2017.

54 Dziennik Łódzki, Piotrkowska Street presence survey. 20,000 people visit the street on Friday and Saturday evenings, <https://dzienniklodzki.pl/badania-frekwencji-na-ulicy-piotrkowskiej-w-piatki-i-soboty-wieczorem-ulice-odwiedza-20-tys-osob/ar/3880057>, 2015



This document has been prepared as an independent report intended as an assessment of the economic impact of STRABAG on the Polish economy. STRABAG has been operating in Poland for 35 years, ranking second among the largest construction companies in 2023. The report consists of an analysis of direct, indirect and induced impacts, and an approximation of how STRABAG activities affect both the country in general and local communities.

The conclusions presented in the document reflect the opinions of experts, formulated on the basis of an analysis of current, publicly available statistics, publications and reports. Objectivity was the principle that guided the authors preparing this report. The report presents the current state of the market with possible changes and their potential economic impact, without judgement from industry players. In order to ensure the reliability of the presented analysis results, selected stakeholders were consulted regarding the assumptions. The final form of the report is a result of an independent decision by Deloitte Advisory Sp. z o.o. Sp. k., and the consultations carried out were aimed solely at finding out the positions of the stakeholders.

The report was funded by STRABAG Sp. z o.o.

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