

COMARCH

Annual
Report
2021



Consolidated financial results
of Comarch Capital Group
as of 31 December, 2021.

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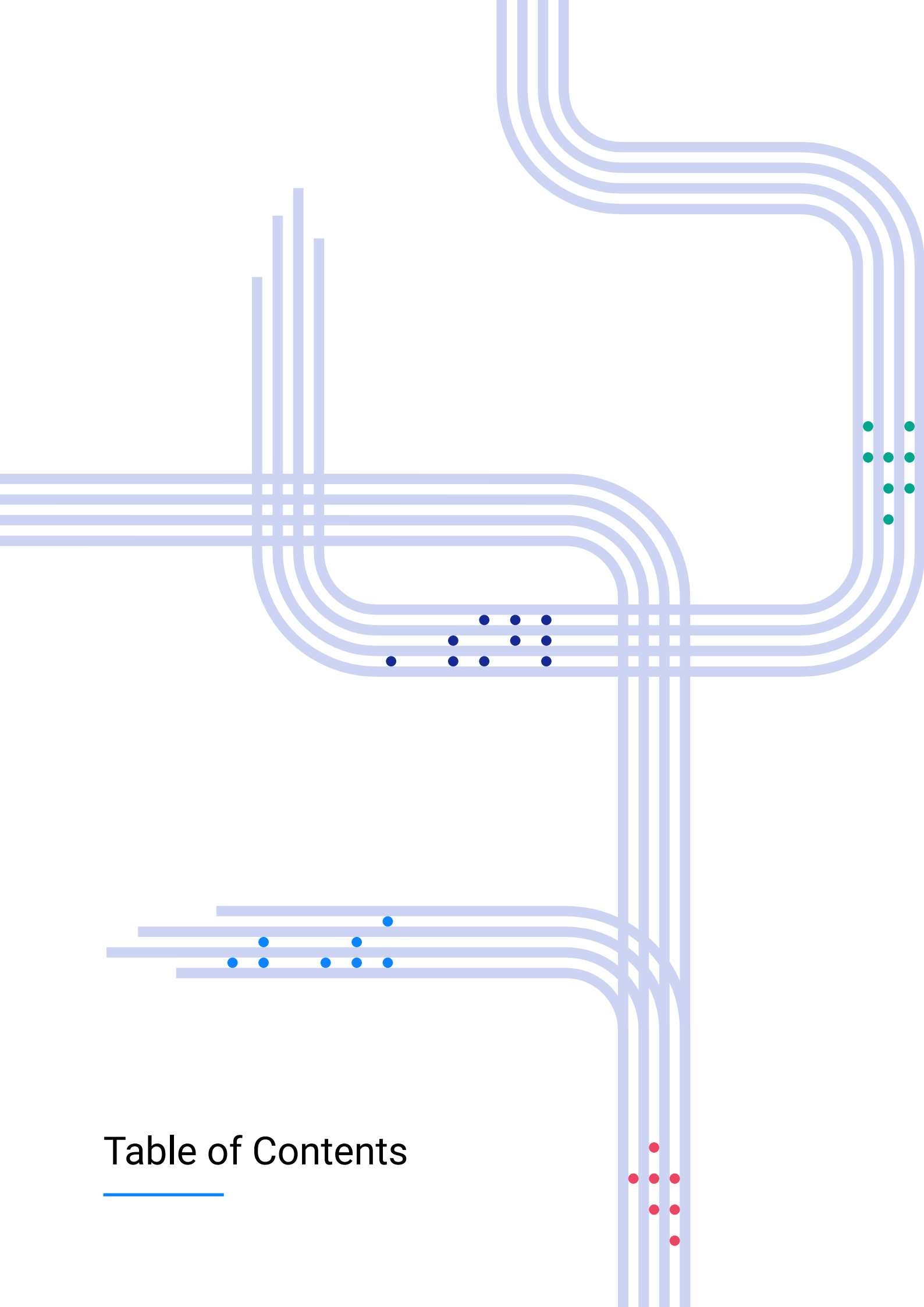


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1

A Letter from Comarch CEO to Shareholders

Dear Shareholders,

The year 2021 was another period of successful development and very good financial results for the Comarch Group. Consolidated sales revenue amounted to PLN 1.63 billion, operating profit reached PLN 187.2 million, while net profit attributable to the company's shareholders amounted to PLN 123 million. Operating profitability in 2021 was 11.5 per cent and net profitability was 7.6 per cent.

The key elements of the Comarch Group's strategy remained unchanged in 2021. The Group focused on improving existing IT products and developing new ones, offering them to a wide range of industries and selling them worldwide. Nearly 94 per cent of the Group's revenues came from the sale of its own IT services and solutions, and nearly 58 per cent of sales revenues were generated outside Poland. Last year, business grew rapidly both in the domestic market (up 7.7 per cent) and in foreign markets (up 4.6 per cent), particularly in Asia and Western Europe. Customers were particularly interested in solutions for the telecommunications sector, whose sales increased by as much as PLN 98 million, i.e. by 31.8 per cent compared to the previous year. This was the result of the execution of large contracts acquired in earlier periods. Sales of ERP systems and services and solutions for medicine also showed very good dynamics. Thanks to a wide and comprehensive offer of modern IT solutions and high quality services, the Comarch Group has strengthened its position in 2021 as a leading Polish software producer and one of the world's leading IT suppliers. Thanks to its global sales network, which has been in place for many years, the Comarch Group has been able – despite the pandemic and its limitations – to effectively develop sales of solutions in new markets.

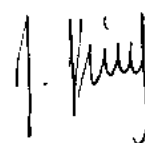
In 2021, the Comarch Group continued its large-scale R&D activities. Research expenditure exceeded PLN 317 million, accounting for 19.5 per cent of the Group's sales revenue. Comarch intensively developed, among others, a new generation of loyalty system, ERP system, systems for telecommunication operators, e-commerce solutions, for the medical sector and related to financial services. In 2021, the dominant model of delivering IT solutions was the service model – Comarch is invariably one of the market leaders in this respect.

The Comarch Group increased employment by 261 people and employed 6,723 people at the end of 2021. As every year, the summer student internship program, thanks to which Comarch is perceived as an employer of first choice on the IT job market, enjoyed great interest.

The year 2021 was another year of the company operating under the conditions of the Covid-19 pandemic. Comarch Group companies adapted their work organization and business processes accordingly and did not notice any negative impact of the pandemic on their activities. The beginning of this year brought another challenge in the form of Russian aggression against Ukraine. The Comarch Group fully stands in solidarity with the Ukrainian people and has been providing support in many forms and many areas since the first day of the conflict. The operational activity of Comarch Group companies is conducted without any disruptions and the effects of the conflict will not have a significant negative impact on the company's economic situation – in 2021, customers from Ukraine and Russia accounted for 1.5 per cent of the Group's sales revenue. To increase the diversification and security of its infrastructure, the Comarch Group is building a new Comarch Data Center in the United States, which will be commissioned in the second half of this year.

Last year, the Management Board of Comarch S.A. made every effort to effectively carry out its mission of disseminating innovative technological thought created in Poland around the world while pursuing the policy of corporate social responsibility and sustainable development. The Comarch Group is a patron of culture, art and sport, supporting local initiatives, local government and non-governmental organizations, health care units and charity actions. In 2021, investments were made in photovoltaic installations on the Comarch campus in Kraków, as a result of which the company itself produces part of the energy used for its own needs.

The past two years have proven that the Group's very good geographical and industry diversification, its wide product range, its financial resources and its ability to adapt efficiently to a rapidly changing environment are key to its long-term existence and growth. I hope that also in 2022 the Comarch Group will be able to strengthen its market position as a global provider of IT solutions and increase its value for shareholders, customers, employees and all other stakeholders.



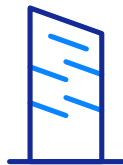
Professor Janusz Filipiak, President of
the Management Board, Comarch S.A.

2

Comarch
Activity



Comarch in Numbers



1991

Comarch onset



1993

Founding year



1999

First publicly traded on the
Warsaw Stock Exchange



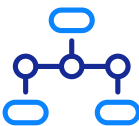
7000

employees



>500 mln USD

The total value of Comarch's
shares on the Warsaw Stock
Exchange



59

companies



Added Value

Comarch is a software house
which sells its own software
products to large corporations
and provides implementation
and managed services



93%

of revenues from sales
of own software and
products



Headquarters

Kraków,
Poland

Worldwide Customers, Projects, Companies, Data Centers

Worldwide Subsidiaries, Customers, Projects

Customers and Projects

Europe

1 **Poland**
Białystok, Bielsko-Biała, Częstochowa, Gdańsk, Gliwice, Katowice, Kielce, **Kraków HQ**, Lublin, Łódź, Opole, Płock, Poznań, Rzeszów, Tarnów, Toruń, **Warsaw**, Wrocław, Zielona Góra

2 **Austria**
Innsbruck, Vienna

3 **Belgium**
Brussels

4 **Finland**
Espoo

5 **France**
Cergy, **Lille**, Montbonnot-Saint-Martin

6 **Germany**
Berlin, Bremen, **Dresden**, Düsseldorf, Hamburg, Hannover, Munich, Münster

7 **Italy**
Milan, Rome

8 **Luxembourg**
Luxembourg

9 **Russia**
Moscow

10 **Switzerland**
Arbon, Zug

11 **Szwecja**
Sztokholm

12 **The Netherlands**
Rotterdam

13 **UK**
London

14 **Ukraine**
Kyiv, Lviv

Asia

15 **China**
Shanghai

16 **Japan**
Tokyo

17 **Malaysia**
Kuala Lumpur

18 **South Korea**
Seul

19 **Thailand**
Bangkok

20 **Turkey**
Istanbul

Middle East

21 **Saudi Arabia**
Riyadh

22 **United Arab Emirates**
Abu Dhabi, Dubai

North America

23 **Mexico**
Mexico City

24 **Canada**
Saint John, **Montreal**, *Toronto*

25 **USA**
New York, Rosemont, *Chicago, Columbus*

South America

26 **Argentina**
Buenos Aires

27 **Brazil**
Sao Paulo

28 **Chile**
Santiago

29 **Colombia**
Bogota

30 **Panama**
Panamá City

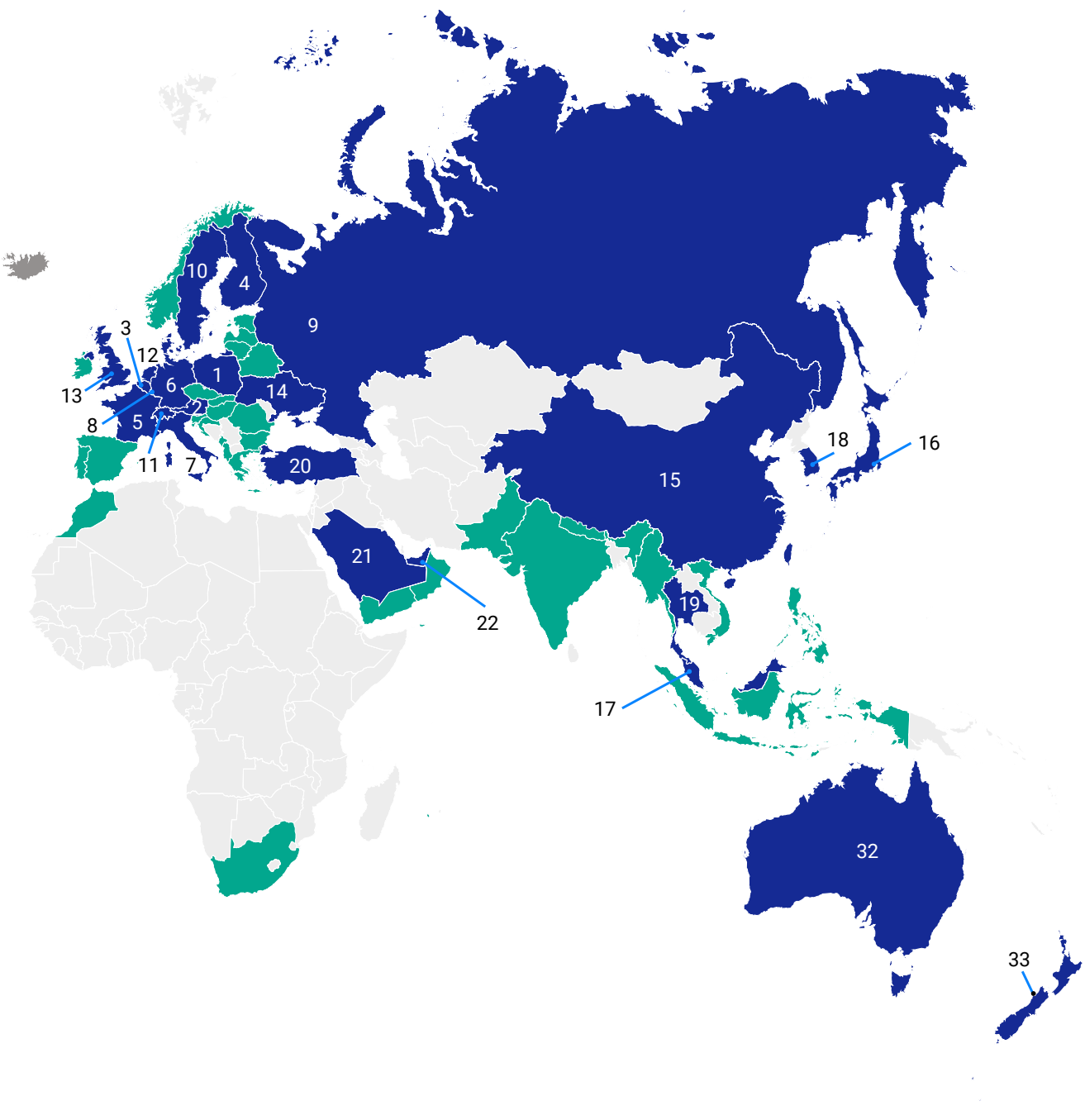
31 **Peru**
Lima

Australia

32 **Australia**
Sydney, Melbourne

33 **New Zealand**
Auckland

Legend office office and data center data center only



59 Companies 81 Offices 70 cities 33 countries 5 continents

Operations of the Comarch Capital Group

The Comarch Group is a producer of innovative IT systems for key sectors of the economy both in Poland and abroad. Comarch's main strategy is to provide customers with complete IT solutions based on its own products, also in the service model. With high class specialists and the professional infrastructure, Comarch is able to provide both IT products and implementation and maintenance services thereof as well as consulting and integration services for customers all over the world. As a result, buyers of products and services offered by Comarch have full access to the offered modern IT services and can optimise their business processes.

The broad range of Comarch offer covers ERP class systems, financial and accounting systems, CRM systems, loyalty software, systems supporting sales and electronic document exchange, electronic banking systems, OCT network management systems, billing systems, Business Intelligence software, security and data protection management services and many other solutions. Comarch is a provider of solutions for, among others, entities from the public administration, banking, accounting offices, FMCG companies, airlines, automotive, medical sector, production companies, public utility companies, capital markets, telecommunications and insurance companies, universities, trade and service companies, transport companies, fuel suppliers and entities conducting brokerage, e-commerce or factoring activities.

The Comarch Group focuses on developing IT solutions in the service model – Comarch is one of the market leaders in this field. Last year, the Comarch Group launched a comprehensive cloud computing offer Comarch Cloud, with the highest security standards, built on the infrastructure of Comarch Data Center. With Comarch Cloud, customers can use software, store data and run their businesses without having their own IT infrastructure, while being provided with high performance, reliability, security and scalability.

In planning its development strategy, Comarch provides for social and environmental aspects and knowingly limits the impact of its operations on the natural environment, minimising the consumption of natural resources and the production of waste as a result of its ongoing operations.

As of the report publication date, Comarch S.A. has 20 branches in Poland and one in Albania. The Comarch Group consists of 61 companies located on five continents, in 36 countries, in over 100 locations worldwide. In the past year, the Comarch Group successfully continued its growth

strategy based on diversifying its activity across various industry segments and regions of the world, developing its own products and selling them on the global market. For many years, one of the main strategic objectives of the Comarch Group

has been developing sales of an increasing number of products on foreign markets, particularly in Western Europe, Asia, Oceania and North America. In the past year, Rox Star Maritime Ltd, based in Malta, became part of the Group. The plans for 2022 provide for other capital investments, both on the domestic market and foreign ones.

Membership of international organisations

Comarch is a member of organizations in the IT field, such as ETIS, PIKOM and TM Forum, which gives it constant access to the latest standards emerging in these fields. The TeleManagement Forum (TMF) is a non-profit organisation established in 1988 to accelerate development of telecommunications networks management systems. ETIS, on the other hand, is an international organisation that aims to help members improve their business performance by sharing information on the effective use of computer technology. In turn, the PIKOM cluster brings together small and large research laboratories and training institutions involved in a specific industry.

In 2019, Comarch joined MEF, an industry association of more than 200 companies in the telecommunications industry.

Since 2020, Comarch has been a member of the O-RAN Alliance – a consortium dealing with the promotion of software-based, extensible RAN networks and the standardization of critical elements of the O-RAN Alliance architecture.

Comarch also belongs to international chambers of commerce, such as the Polish-German Chamber of Industry and Commerce, the Polish-New Zealand Chamber of Industry and Commerce and the French-Polish Chamber of Commerce, as well as branch organizations around the world.

In Italy, Comarch is a member of the Retail Institute Italy, whose mission is to promote the culture and development of the entire sector, by offering basic content and strategic actions. Comarch is also a member of the Osservatorio Innovazione Digitale in Sanità. The institution's mission is



to create and disseminate knowledge about the impact that digital technologies have on businesses, public administration and citizens. In addition, it belongs to CAPI – the Polish Business Chamber in Italy.

In the Benelux countries, Comarch belongs to the Belgian-Polish-Luxembourg Chamber of Commerce, whose mission is to promote Belgian and Luxembourg investments and exports to Poland and to support Polish companies in their cooperation with Belgian and Luxembourg companies. A member of the board at BEPOLUX is Wojciech Pawluś, Comarch's Managing Director for the Benelux.

In France, Comarch is a member of the HUB-RETAIL "Cross-Canal and Omni-Logistics" association. The aim of the organisation is to unite and collaborate the business community in the Auvergne-Rhône-Alpes region and the associated logistics sector. Comarch also belongs to the Adira organisation, which brings together all the regional players in the field of information technology. In addition, Comarch is a member of AD2N, a regional association that brings together more than 40 companies that provide digital services (ESN) and manufacturers of IT systems. It also operates within the structures of Syntec Numérique. It is a professional organization bringing together digital service companies (ESNs), software publishers and technology (ICT) consultancies. The company is also a member of Clubster NSL – Nutrition, Santé, Longévité, a cluster of companies in the agri-food, health, healthcare, biotechnology and e-health sectors, which stimulates exchange and cooperation between academia and industry and supports candidate innovation projects in seeking regional, national and European funding.

And in Australia, Comarch is a member of the Australian Loyalty Association, an organization founded to promote education and provide networking opportunities for those working in the loyalty industry, and the Loyalty360 association, which markets customer loyalty marketing solutions and enables dialog between industry leaders. It is also a member of the Polish Australian Business Forum, a non-for-profit organization creating a networking platform for Polish professionals living in Australia.

Characteristics of Factors Significant for the Development of the Comarch Group

Internal factors

- a high degree of diversification of its activities, both in terms of industry and in terms of geography and products;
- continuous growth of sales and importance of foreign business;
- position and reputation of the Comarch Group affecting the type of attracted customers;
- comarch Group's activities in the special economic zone in Kraków;
- significant share of standard (recurring) products on sale, which means:
 - lower costs, especially variable expenses related to a single contract,
 - possibility of a material increase of profitability on individual contracts while reducing charges to customers (licence fees),
 - a broader and more diversified portfolio of customers meaning a larger scale of operations.
- attractive training policy and attractive working conditions offered to employees of Group companies;
- a recognizable and popular annual summer internship program for students, which makes the Comarch Group one of the first choice employers in the IT industry in Poland
- high recognition of the Comarch brand among potential customers as a result of marketing campaigns (including sports marketing) and social activities;
- need to make ongoing investments in human capital in order to keep the Company competitive in the future;
- high level of investments for R&D activities and development of new information technology products and services;
- high level of investments related to the development of production facilities in Poland and abroad (tangible investments) and to foreign expansion (capital investments).

External factors

- an increase in the demand placed on information systems by customers. Demand has been growing for large, complex IT systems dedicated to specific users. This better positions larger IT companies like the Comarch Group that offer a number of various technologies and products and are able to provide technologically advanced solutions;
- growing importance of mobile technologies, now commonly applied in IT solutions for all user groups;
- changing business models in many industries and changes in the business strategies of many companies due to technological progress and economic development, which shapes the demand for new IT systems, the widespread sale of software in the cloud computing model means increased capital and resource requirements for IT companies;
- access by Polish companies to EU structural funds that are partly addressed to support development of IT systems and to finance R&D work;
- growing competition resulting in lower margins; competition among IT companies;
- constant pressure on salary raises in IT; decreasing number of university graduates with IT education;
- increasing competition on the local IT labor market in Kraków and other locations where the Company conducts its business, the spread of the remote work model in the IT industry makes it easier for IT specialists to change their jobs;
- international economic situation, with special focus on the condition in financial markets that affects the volume of demand for IT products and services;
- exchange rate volatility, particularly EUR/PLN, USD/PLN, GBP/PLN, CHF/PLN, JPY/PLN, THB/PLN, AED/PLN, BRL/PLN, CAD/PLN affecting the profitability of foreign sales;
- the global economic situation, with particular emphasis on the situation in Europe, affecting the volume of demand for IT products and services in this market and the financial credibility of customers in this geographic area;
- the international political situation, e.g. the unstable situation in the locations where projects are carried out, hinders their implementation; in particular, the sanctions imposed on Russia following the Russian aggression in Ukraine will result in a decrease in the Group's revenues from eastern markets;
- the epidemiological situation in the world, related to the spread of the SARS-CoV-2 coronavirus and the COVID-19 outbreak, which affects the Group's business activities, the way it organises its work and contacts with customers, the health of its employees, and also affects the situation of the Group's customers and the demand they generate for IT products and services.

Other Relevant Factors, Including Risks and Threats

The Comarch Group is exposed to the following main types of financial risk:

Credit risk

The Comarch Group analyses the financial credibility of potential customers before concluding contracts for the supply of IT systems and, depending on the assessment of financial standing, adjusts the terms of each contract to the potential risk. The concentration of credit risk is limited due to the diversification of the Comarch Group's sales to a significant number of counterparties from different sectors of the economy and from different regions of the world. With regard to balance sheet items subject to credit risk, there was no significant change in the level of risk during the reporting period.

FX risk

In connection with export sales or sales denominated in foreign currencies, the Comarch Group is exposed to exchange rate risk, particularly with regard to changes in the exchange rates of the EUR/PLN, USD/PLN, GBP/PLN, CHF/PLN, JPY/PLN, THB/PLN, AED/PLN, BRL/PLN, CAD/PLN currency pairs. At the same time, part of the Comarch Group's costs and liabilities are also expressed in or linked to FX rates. On a case-by-case basis, the Comarch Group hedges future payments by means of forward contracts and also tries to use natural hedging by matching the structure of assets and liabilities denominated in foreign currencies (e.g. by incurring credit liabilities denominated in EUR). The carrying amount of the Comarch Group's financial assets and liabilities denominated in foreign currencies as at the balance sheet date relates to trade receivables and payables, investment loan liabilities and cash.

For an analysis of the sensitivity of the Group's financial result to the risk of changes in exchange rates, see section 2.3.3. Consolidated financial statements.

Liquidity risk

The Comarch Group has a liquidity risk management system for managing short, medium and long-term funds. The main liquidity risk stems from the fact that most of the costs incurred by the Comarch Group are fixed costs, while sales revenues are subject to the volatility typical of service companies. The Comarch Group manages liquidity risk by maintaining an adequate amount of working capital, by maintaining reserve overdraft facilities, by constantly monitoring forecast and actual cash flows and by analysing the maturity profiles of financial assets and liabilities.

Risk of changes in interest rates

The Comarch Group is exposed to the risk of interest rate fluctuations due to its cash and cash equivalents and the long-term loans concluded to finance investments in fixed assets. The loans bear interest at a floating interest rate based on the EURIBOR rate. The Comarch Group has partially hedged the interest rate risk arising from its loans by means of IRS contracts and is constantly monitoring the market situation in this respect. The effect of changes in interest rates on the amount of interest paid on loans may be partially offset by changes in interest received on cash held.

For an analysis of the sensitivity of the Group's financial result to interest rate risk, see section 2.3.2. Consolidated financial statements.

Prospects for Development of the Comarch Group's Activities and its Expected Financial Situation in 2022

In 2021 there was an increase in demand for the Comarch Group's IT services and products, accompanied by changes in its structure. The Group recorded a significant increase in demand for solutions for the telecommunications sector, the public sector, the medical sector and for ERP products,

while sales to the finance and banking sector declined. The Comarch Group's order book currently ensures that its production capacity will be fully utilised in the next few periods.

The Management Board of Comarch S.A. is currently monitoring the development of the situation connected with the continuing effects of the spread of the SARS-CoV-2 coronavirus and COVID-19 infections and their impact on the activities of Comarch Group companies. The Management Board of Comarch S.A. informs that as of the publication date of this report, the operational activity of the Comarch Group is running smoothly. The Comarch Group has implemented all guidelines recommended by the Chief Sanitary Inspectorate and other state authorities in the countries of the Group's operations with special attention to recommendations concerning security, occupational health and safety of its employees. Business trips to countries identified by the Chief Sanitary Inspectorate as high-risk countries have been suspended or restricted, direct contacts between employees within the organization have been limited, a large-scale remote working mode for office employees has been launched, and all hygiene recommendations are applied in Comarch offices. Polish subsidiaries of the Comarch Group carried out a COVID-19 vaccination campaign for employees at the company's headquarters in Kraków and at larger branches in Poland, including booster vaccinations.

During the epidemic period, there was no decrease in revenue from sales of services and products offered by Comarch Group companies. Comarch's operations and financial performance in future periods will be affected by factors such as the duration and extent of the epidemic, the number of people falling ill with COVID-19, administrative restrictions on the operation of countries and businesses, restrictions on the movement of employees, the possibility of taking advantage of aid packages launched by individual countries, as well as the extent and effectiveness of the immunization programme. Since the beginning of 2022, the Management Board of Comarch S.A. has been paying particular attention to the possible consequences of the war caused by Russian aggression against Ukraine. The Comarch Group fully stands in solidarity with the

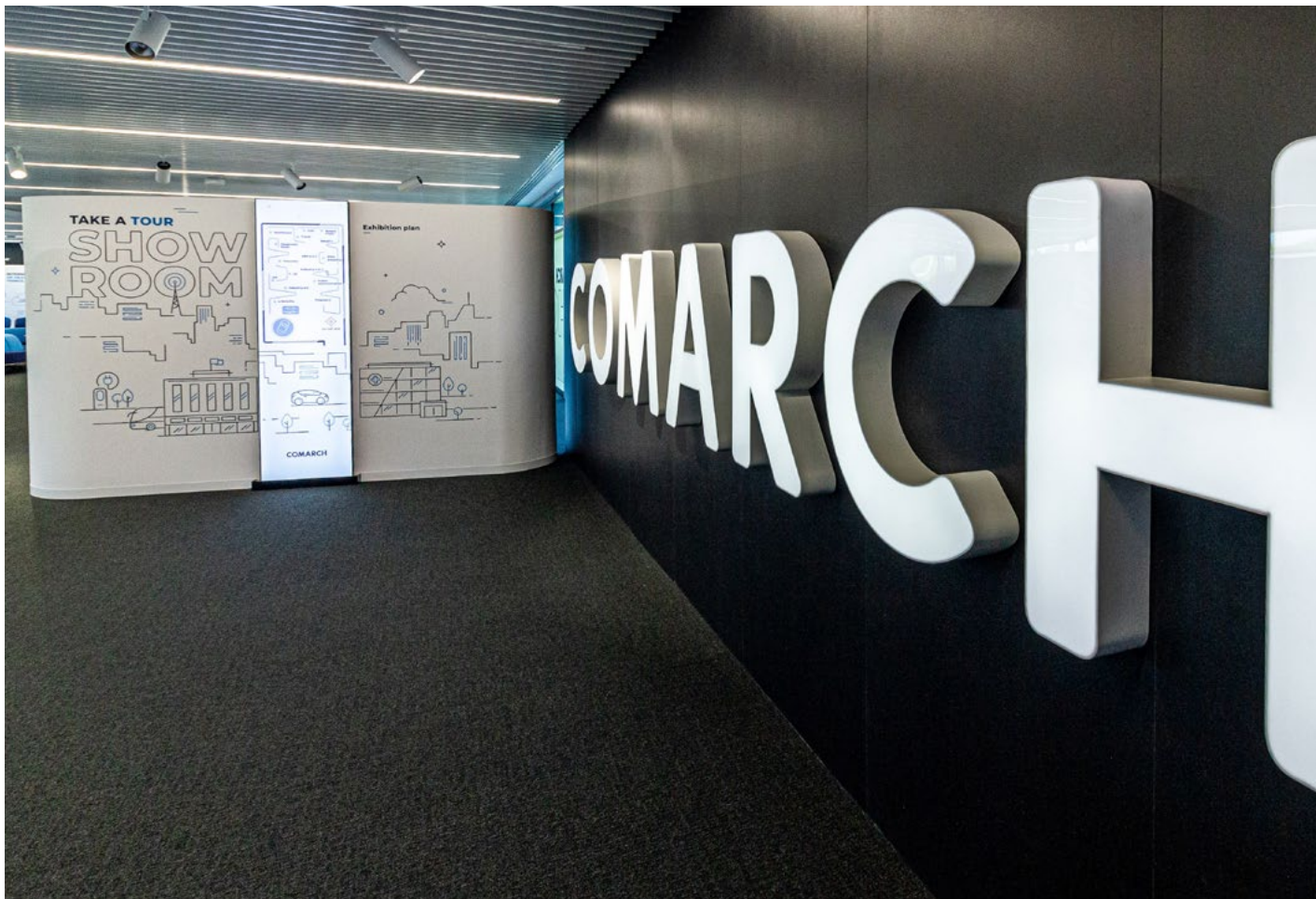
Ukrainian people and has been providing support in many forms and many areas since the first day of the conflict. The operational activities of the Comarch Group are running smoothly. The subsidiary LLC Comarch, based in Kiev, retains its business continuity, while the activities of the subsidiary Comarch OOO, based in Moscow, are terminated. The Management Board of Comarch S.A. assesses that the conflict will not have a directly significant negative impact on the company's economic situation – customers from Ukraine and Russia accounted for 1.5% of the Comarch Group's total sales revenue.

Comarch's activities and financial results in 2022 will also be influenced by political and economic developments in Poland and worldwide, as well as the situation on the labour market. Thanks to the strategy, consistently pursued for many years, of positioning itself on the market as a technology and product company, Comarch's offer is very well diversified. The group of customers keeps expanding and many of them are international companies, which supports further development of the Company. The dynamically growing business of the Comarch Group in foreign markets additionally contributes to growing sales and enhances the image of Comarch among customers, thus consolidating its competitive position. The above also requires numerous capital investments outside Poland (mainly by setting up foreign subsidiaries). Strategies of enterprises are largely subject to macroeconomic conditions independent of Comarch, in particular to investment levels in IT made by medium-sized and large companies in Poland and abroad and to the intensifying competition in the IT labour market. Additionally, effective management of operational risks is another condition required to implement strategies. An opportunity for the Group is its great innovativeness and the increase in demand for IT delivery in the service model – the Comarch Group, thanks to its wide range of own products, infrastructure, human and capital resources, can flexibly adjust to business models expected by customers.

The major operational risks inherent in the Group's business include:

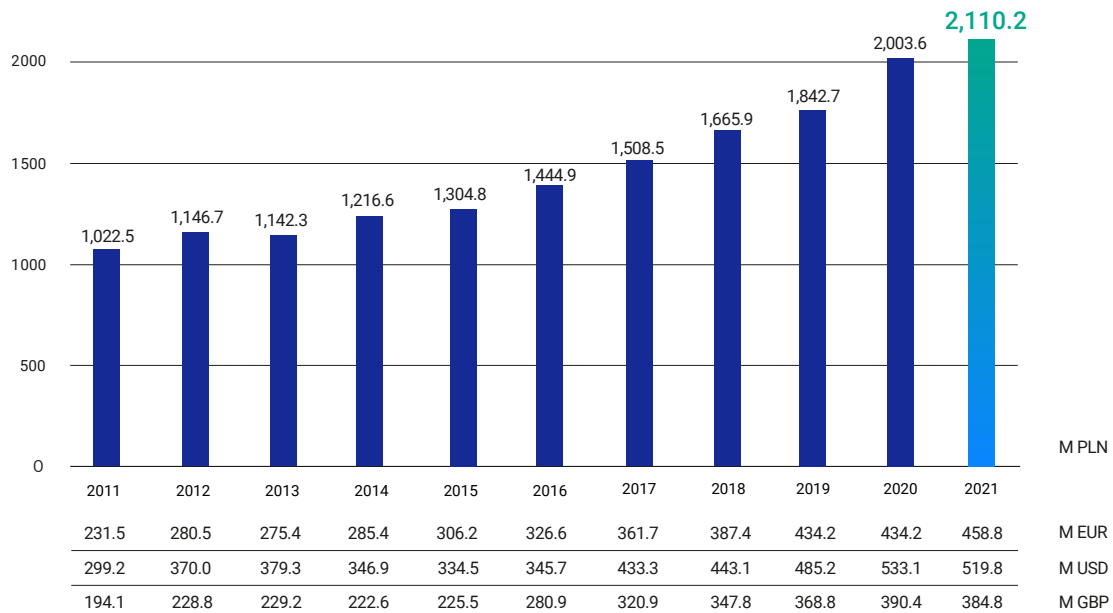
- risks related to R&D work (development of its own software products);
- risks related to the performance of long-term contracts;
- risks related to default on contracts and counterparties drawing on good performance bonds and contractual penalties they are entitled to;
- risks related to foreign economic, legal, and political environment in the context of export contracts;
- credit risk related to deferred sales and the often long lead times of contracts;
- risk of staff turnover, risk of lack of an adequate number of qualified staff, risk of growing labor costs;
- currency and interest rate risk;
- risks related to international terrorism which affects business trips to various regions of the world;
- risks related to the spread of the SARS-CoV-2 coronavirus and COVID-19 outbreaks, which affect the way the Comarch Group conducts its business and the financial health of the Comarch Group's customers and the demand they generate for IT products and services;
- risks related to the ongoing war on Ukrainian territory and the political, economic and social consequences of this conflict.

The Group anticipates no material changes to its financial condition and to risks inherent in its business.

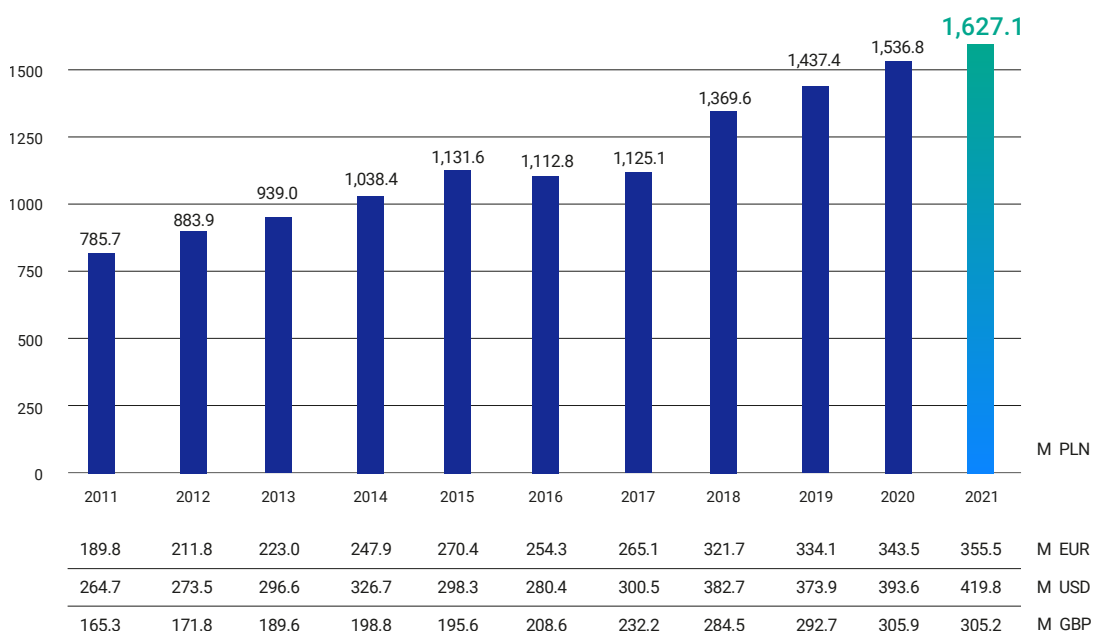


Innovation Space, Comarch SSE7 building, Kraków

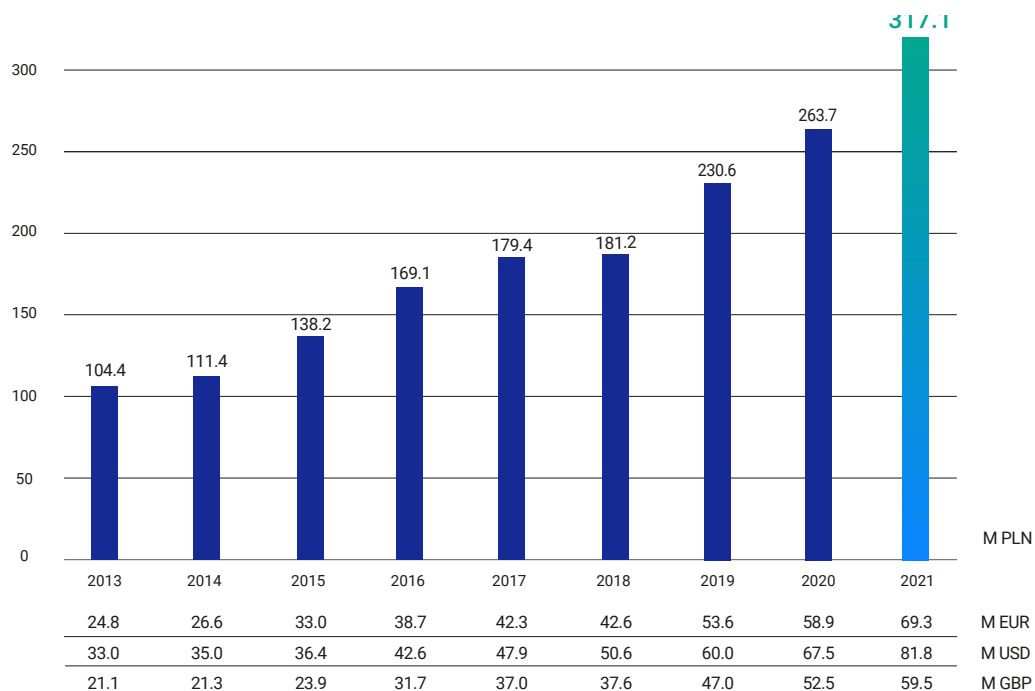
Balance Sheet Total



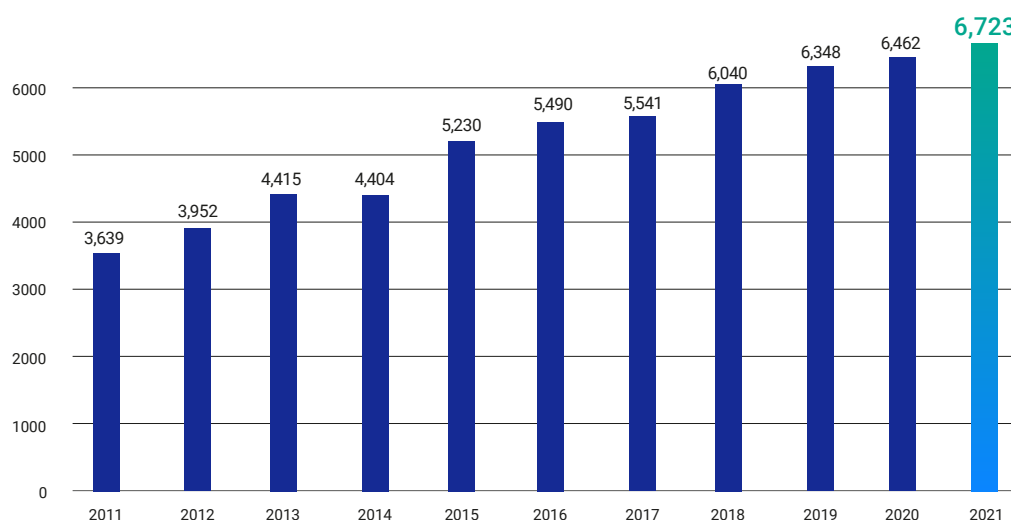
Sales Revenue



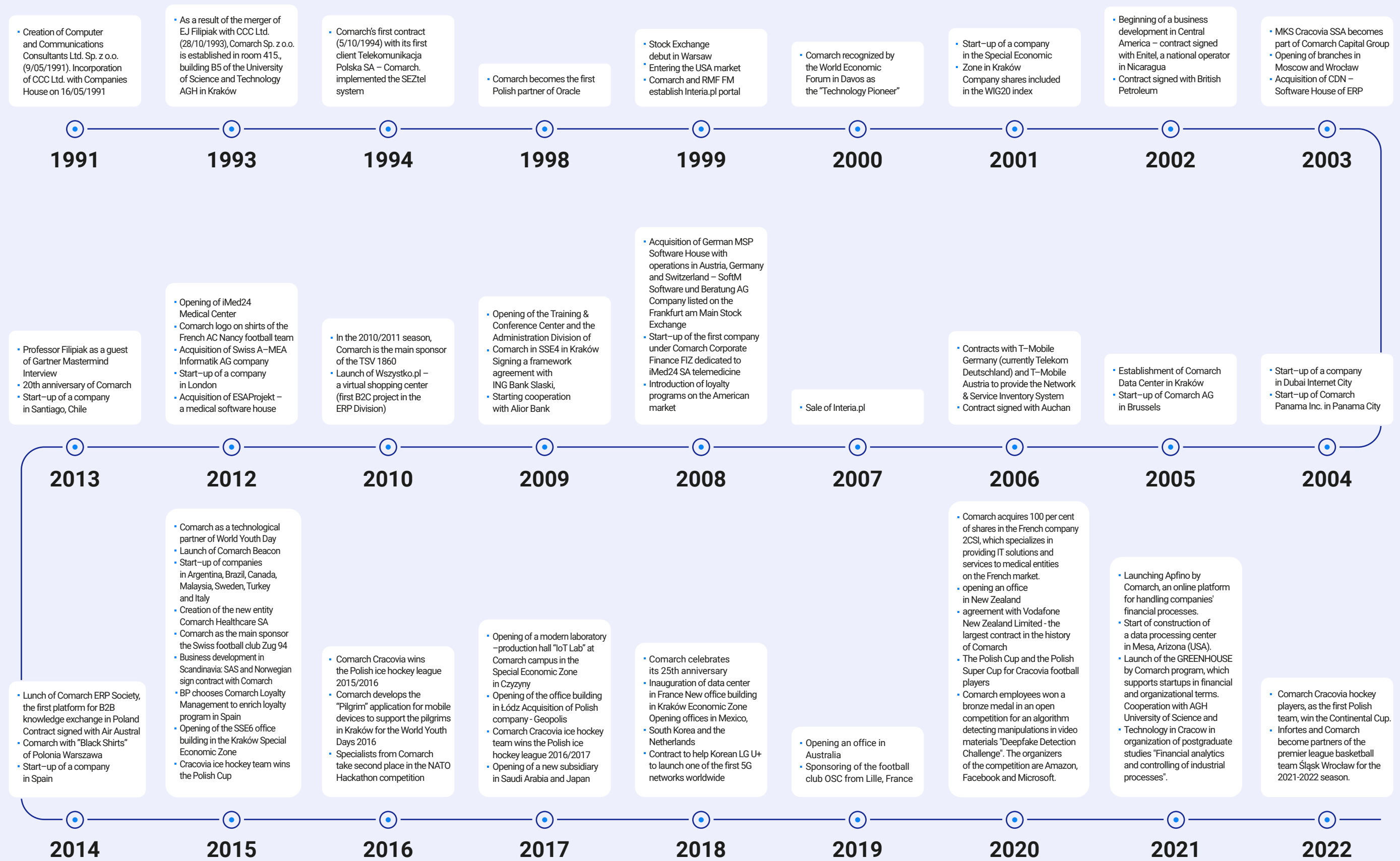
Research and Development Expenditure



Employment



History of Comarch



3

Financial Analysis



Basic Economic and Financial Figures

Selected consolidated financial data

	2021	2020	2019	2018	2017**
Revenues from sales	1,627,149	1 536 753	1 437 423	1 369 619	1 125 110
Revenues from sales of proprietary solutions	1,527,472	1,448,379	1 336 083	1 242 114	1 047 393
Operating profit	187,227	191,561	143,383	87,543	58,364
EBITDA*	279,326	277,852	228,312	152,748	122,673
Profit before tax	174,290	164,254	142,369	62,480	87,149
Net profit attributable to equity holders of the parent entity	123,038	120,631	104,846	30,616	64,626
Earnings per share (in PLN)	15.13	14.83	12.89	3.76	7.95
Assets	2,110,248	2,003,558	1,842,711	1,665,945	1,508,452
Equity	1,197,362	1,098,547	970,756	876,108	851,190

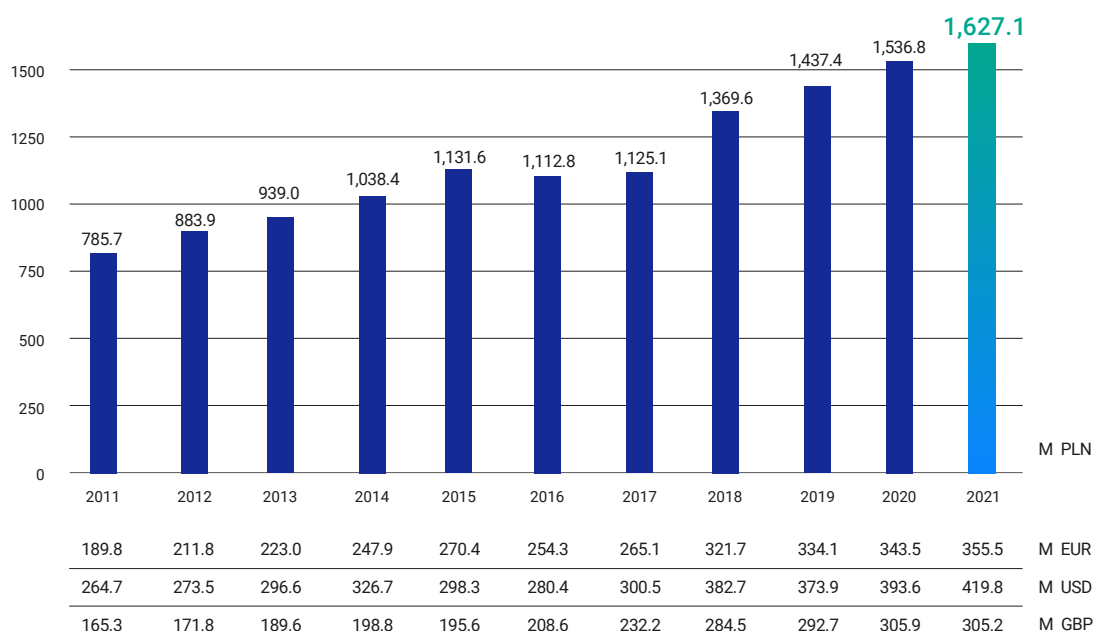
*) Operating profit + Depreciation

**) From 1 January 2018 the Group started to apply the principles under IFRS 15 to sales revenue. For comparative purposes, the 2017 figures were also restated in accordance with IFRS 15.

In 2021, the Comarch Group's sales revenues were higher by PLN 90,396 thousand, i.e. 5.9% compared to the previous year. The operating profit amounted to PLN 187,227 thousand and was by PLN 4,334 thousand, i.e. 2.3% lower than in 2020. The net profit attributable to equity holders of the parent company in 2021 amounted to PLN 123,038 thousand and was by PLN 2,407 thousand, i.e. 2% higher than in 2020. Operating profitability was 11.5% (previous year 12.5%), net profitability 7.6% (7.8% in 2020).

The value of Comarch Group's assets at the end of 2021 increased by PLN 106,690 thousand compared to last year, i.e. by 5.3%. The value of equity increased in 2021 by PLN 98,815 thousand, i.e. 9.0%, as a result of the net profit generated in 2021.

Revenues from sales



Structure of sales

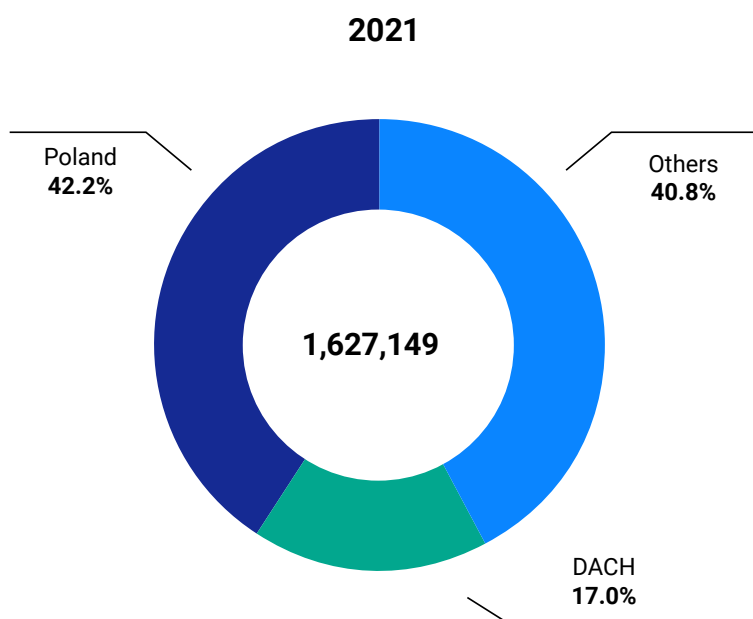
Revenues from sales – geographical structure

	2021	%	2020	%	2019	%
Domestic (Poland)	686,900	42.2	637,943	41.5	594,021	41.3
Abroad	940,249	57.8	898,810	58.5	843,402	58.7
Total	1,627,149	100.0	1,536,753	100.0	1,437,423	100.0

In 2021, the Comarch Group recorded PLN 686,900 thousand of domestic sales revenues, by PLN 48,957 thousand of sales revenues (i.e. by 7.7%) higher than in 2020. This was due to increased sales to the SME – Poland, medical and telecommunications sectors in Poland. Foreign sales in 2021 amounted to PLN

940,249 thousand and was by PLN 41,439 thousand, i.e. 4.6% higher than in 2020. This is mainly due to the increase in revenue from sales to customers in the telecommunications sector. Foreign sales accounted for 57.8% of the Comarch Group's total revenues in 2021.

The geographical structure of sales remained stable during the financial year



Revenues from sales – structure by recipients

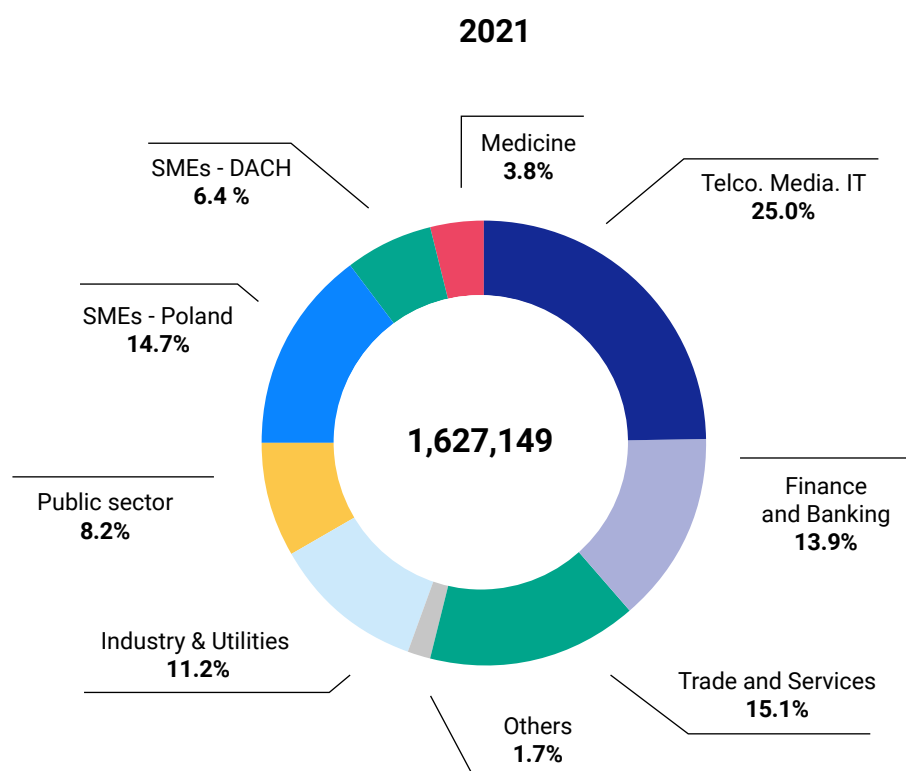
	2021	%	2020	%	2019	%
Telecommunications, media, IT	406,082	25.0	308,041	20.0	335,846	23.4
Finance and banking	226,343	13.9	259,151	16.9	191,054	13.3
Trade and services	245,813	15.1	231,684	15.1	251,743	17.5
Industry & Utilities	181,558	11.2	179,019	11.6	179,336	12.5
Public sector	133,821	8.2	154,541	10.1	130,352	9.1
SME – Poland	239,459	14.7	206,169	13.4	190,421	13.2
SME – DACH	104,034	6.4	122,146	7.9	100,411	7.0
Medicine	62,488	3.8	40,820	2.7	25,919	1.8
Other	27,551	1.7	35,182	2.3	32,341	2.2
Total	1,627,149	100.0	1,536,753	100.0	1,437,423	100.0

In 2021, sales to TMT customers amounted to PLN 406,082 thousand, which is an increase of PLN 98,041 thousand (i.e. by 31.8%) as compared to 2020. Customers in the finance and banking sector purchased products and services worth PLN 226,343 thousand, lower than in the previous year by PLN 32,808 thousand, i.e. by 12.7%. An increase was recorded in sales to customers from the trade and services sector (by PLN 14,129 thousand, i.e. by 6.1%). Revenues from sales to customers in the industrial and utilities sector also recorded an increase, by PLN 2,539 thousand, i.e. by 1.4%. Revenues from sales to public sector customers decreased significantly (down by PLN 20,720 thousand, i.e. by 13.4%). Customers from the SME-Poland sector purchased products and services worth PLN 33,290 thousand, i.e. by 16.1% higher

than in the previous year, while sales to customers in the SME-DACH sector decreased (by PLN 18,112 thousand, i.e. by 14.8%). There was also a significant increase in revenues in the case of sales to the medical sector (up by PLN 21,668 thousand, i.e. by 53.1%). Revenues from sales to other customers decreased by PLN 7,631 thousand, i.e. by 21.7%.

The business situation in 2021 confirmed that maintaining diversification of revenue sources and diversity of the offer is beneficial for the stable development of Comarch Group's activities. Thanks to its focus on sales of proprietary solutions, the Comarch Group recorded a significant increase in revenue and improved operating profitability.

The structure of sales by customer remained stable during the financial year

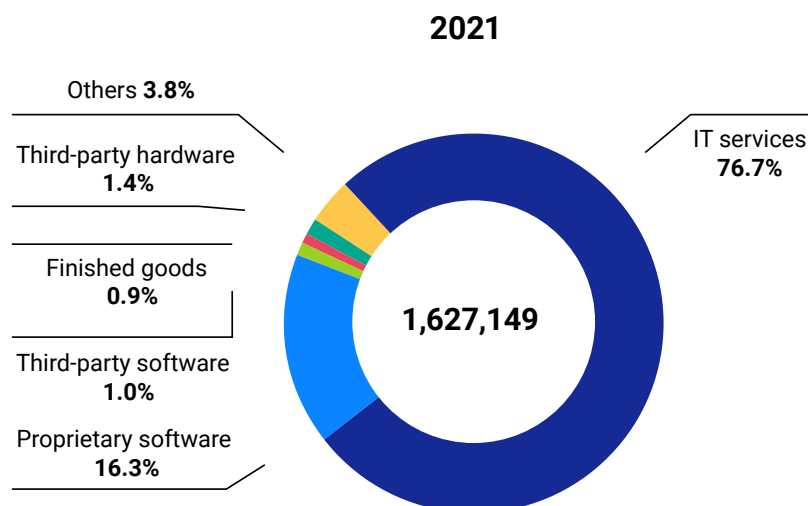


Revenues from sales – structure by type

	2021	%	2020	%	2019	%
IT services	1,247,887	76.7	1,175,323	76.5	1,074,965	74.8
Proprietary software	264,588	16.3	259,952	16.9	249,442	17.3
Third-party software	15,705	1.0	18,219	1.2	30,997	2.2
Finished products	14,997	0.9	13,104	0.8	11,676	0.8
Hardware	22,050	1.3	18,597	1.2	19,134	1.3
Other	61,922	3.8	51,558	3.4	51,209	3.6
Total	1,627,149	100.0	1,536,753	100.0	1,437,423	100.0

In 2021, the type structure of the Comarch Group's sales revenues did not change significantly compared to 2020. Revenues from sales of IT services increased by PLN 72,564 thousand, i.e. by 6.2%. Revenues from sales of proprietary software recorded an increase of PLN 4,636 thousand, i.e. by 1.8%. Sales of own finished goods

increased compared to the previous year (by PLN 1 893 thousand, i.e. by 14.4%). Revenues from the sales of third-party software decreased by PLN 2,514 thousand, i.e. by 13.8%. In 2021, sales of third-party hardware increased by PLN 3,453 thousand, i.e. by 18.6%. Other sales increased by PLN 10,364 thousand (i.e. 20.1%).



Throughout 2021, the structure of sales by type remained stable.



Comarch building in Łódź

4

Company
Bodies



Management Board

Professor Janusz Filipiak

Founder, President of the Management Board
Chief Executive Officer of Comarch SA

Paweł Prokop

Vice-President of
the Management Board
Director of Public Sector Division

Andrzej Przewięźlikowski

Vice-President of
the Management Board
Director of Financial Services Division

Zbigniew Rymarczyk

Vice-President of
the Management Board
Director of ERP Division

Konrad Tarański

Vice-President of
the Management Board
Chief Financial Officer

Marcin Warwas

Vice-President of
the Management Board
Director of Services Division

Supervisory Board

Elżbieta Filipiak

Chair of the Supervisory Board

Andrzej Ryszard Pach

Deputy Chair of
the Supervisory Board

Łukasz Kalinowski

Member of the Supervisory Board

Anna Pruska

Member of the Supervisory Board

Danuta Drobnia

Member of the Supervisory Board

Joanna Krasodomska

Member of the Supervisory Board

Tadeusz Włudyka

Member of the Supervisory Board

Audit Committee

Joanna Krasodomska

Chair of the Audit Committee

Andrzej Ryszard Pach

Member of the Audit Committee

Danuta Drobnia

Member of the Audit Committee

Organizational and Competence Structure of Comarch Capital Group Comarch SA (Kraków, Poland)



prof. Janusz Filipiak

Founder and CEO of Comarch SA
Strategy, HR, Marketing



Konrad Tarański

Finance, Administration and Internal IT Systems, CFO,
Vice-President
of the Management Board

DIVISIONS



Paweł Prokop

Vice-President of the
Management Board,
Director of
**PUBLIC SECTOR
DIVISION**



Andrzej Przewięźlikowski

Vice-President of the
Management Board,
Director of
**FINANCIAL SERVICES
DIVISION**



Zbigniew Rymarczyk

Vice-President of the
Management Board,
Director of
**ERP
DIVISION**



Marcin Warwas

Vice-President of the
Management Board,
Director of
**SERVICES
DIVISION**



Piotr Janas

Director of
IoT DIVISION



Marcin Romanowski

Director of
e-Health



Jacek Lonc

Director of
**TELCO
SALES&BUSINESS
STRATEGY**



Paweł Workiewicz

Director of
TELCO OSS



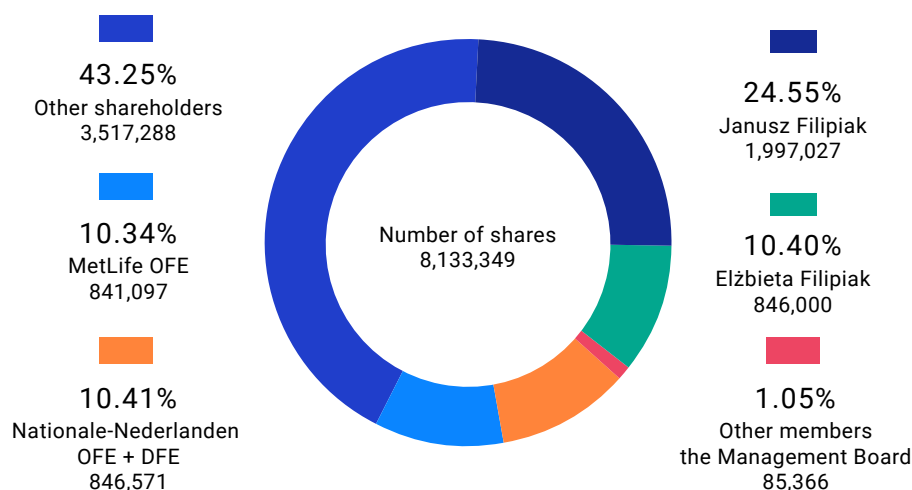
Andrzej Zasadziński

Director of
TELCO BSS

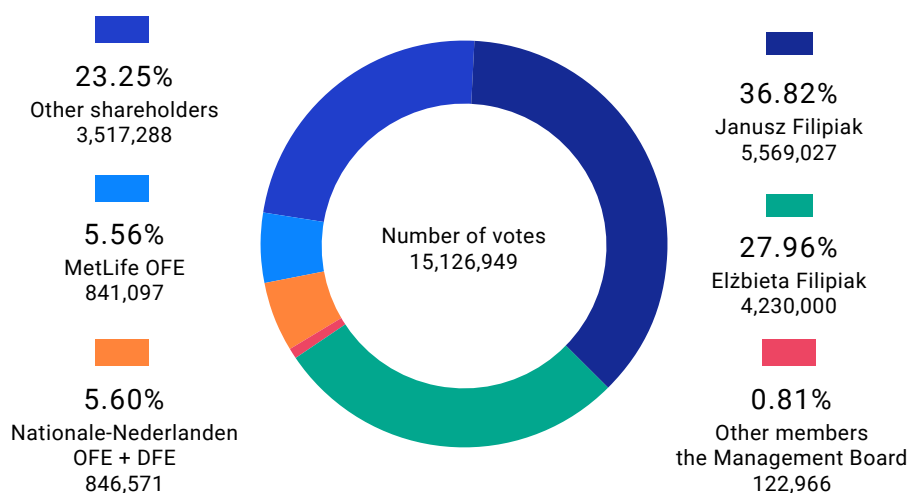
Shareholding Structure

The share capital of Comarch S.A. is made up of 8,133,349 shares with a total nominal value of PLN 8,133,349. According to information possessed by Comarch S.A., as of 31 December 2021, shareholders holding at least

5% of votes at the Company's AGM are Janusz Filipiak, Elżbieta Filipiak, Nationale-Nederlanden OFE + DFE and MetLife OFE.



Shareholding Structure. Number of shares 31.12.2021



Shareholding Structure. Number of votes. 29.04.2022

*) On 25 March 2022 the Management Board of Comarch S.A. received from the person discharging managerial responsibilities (Paweł Prokop) a notification of transactions referred to in Article 19(1) of the Regulation of the European Parliament and of the Council of the EU No. 596/2014 of 16 April 2014 on market abuse. The notification concerned a sale transaction on 3-22 March 2022 of 7,512 bearer ordinary shares and a purchase transaction on 15 March 2022 of 12 bearer shares. The Company informed about the details in the current report no. RB-2-2022 of 25 March 2022.

Organizational Structure of Comarch Capital Group

Poland

- Comarch SA
- Comarch Technologies sp. z o.o.
- CA Consulting SA
- Comarch Management sp. z o.o.
- Comarch Corporate Finance Fundusz Inwestycyjny Zamknięty
- Comarch Management sp. z o.o. SK-A
- CASA Management and Consulting sp. z o.o. SK-A
- Bonus MANAGEMENT sp. z o.o. Cracovia Park SK-A
- Bonus Management sp. z o.o. SK-A
- Bonus Development sp. z o.o. SK-A
- Bonus Management sp. z o.o. II Activia SK-A
- Bonus Development sp. z o.o. II Koncept SK-A
- Comarch Healthcare SA
- Comarch Polska SA
- Comarch Cloud SA
- Comarch Finance Connect sp. z o.o.
- Comarch Infrastruktura SA
- iComarch24 SA
- Geopolis Sp. z o.o.
- MKS Cracovia SSA
- SolInteractive SA
- WSZYSTKO.PL sp. z o.o.

Europe

- Comarch S.A.S. - France
- Comarch R&D S.A.S - France
- Comarch Luxembourg S.à r.l. - Luxembourg
- Comarch LLC - Ukraine
- Comarch OOO - Russia
- Comarch Technologies Oy - Finland
- Comarch UK Ltd. – United Kingdom
- Comarch Yazilim A.S. - Turkey
- Comarch SRL - Italy
- Comarch s.r.o. - Slovakia
- Comarch AB - Sweden
- Comarch AG - Germany
- Comarch Software und Beratung AG - Germany
- Comarch Solutions GmbH - Austria
- Comarch Swiss AG - Switzerland
- CAMS AG – Switzerland
- Comarch BV – The Netherlands
- Cabinet Conseil en Strategie Informatique SAS (2 C.S.I.) – France
- Comarch Software LLC – Ukraine
- Rox Star Maritime Limited - Malta

North America

- Comarch, Inc. - USA
- Comarch Canada, Corp. - Canada
- Comarch Espace Connecté Inc. - Canada
- Comarch Pointshub, Inc. - USA
- Comarch Espace Connecté Inc.- Canada

Central & South America

- Comarch Panama, Inc. - Panama
- Comarch Sistemas LTDA - Brazil
- Comarch Chile SpA - Chile
- Comarch Colombia S.A.S. - Columbia
- Comarch Argentina SA – Argentina
- Comarch Perú S.A.C. - Republic of Peru
- Comarch Mexico S.A. de C.V. - Mexico

Asia

- Comarch Software (Shanghai) Co. Ltd. - China
- Comarch Malaysia SDN. BHD. – Malaysia
- Comarch Japan KK – Japan
- Comarch Yuhan Hoesa (Comarch Ltd.) – South Korea
- Comarch (Thailand) Limited - Thailand

Middle East

- Comarch Middle East FZ-LLC - United Arab Emirates
- Comarch Saudi Arabia Limited Liability Company – Saudi Arabia

Australia & Oceania

- Comarch Pty. Ltd - Australia
- Comarch New Zealand Limited – New Zealand

Ownership Changes, Capital Changes, and Changes in the Organizational Structure of the Comarch Group in 2021

On 21 January 2021, the management board of Geopolis sp. z o.o. filed an application with the District Court in Toruń, 5th Commercial Division, for bankruptcy including liquidation of the debtor's assets, i.e. the company. On 16 March 2021 the District Court in Toruń, 5th Commercial Division, having examined the case from the motion of Geopolis sp. z o.o. in Toruń for bankruptcy, decided to secure the debtor's assets by appointing a temporary court supervisor. The District Court in Toruń, 5th Commercial Division, by decision of 29 December 2021, dismissed the bankruptcy petition of Geopolis sp. z o.o. The company's management board is currently examining the possibility of conducting liquidation proceedings,

On 10 March 2021, inter alia, the change of the name of Unitec sp. z o.o. to Wszystko.pl sp. z o.o. and the change of the company's registered office to Kraków were registered.

On 22 March 2021, a subsidiary LLC "Comarch Software" with a share capital of PLN 14,000 was registered in Lviv. Comarch S.A. holds 100% of the shares and votes in LLC "Comarch Software". On 22 September 2021, the share capital of LLC "Comarch Software" in the amount of PLN 14,000 was paid up by Comarch S.A.,

On 29 March 2021, a resolution was passed to increase the share capital in Comarch S.R.L. by EUR 1,000,000 (i.e. PLN 4,656,000, according to the exchange rate of 29 March 2021) intended to cover a loss of EUR 100,000 and to increase the share capital by EUR 900,000 after it had been reduced to cover the loss. On 6 May 2021 Comarch S.A. made a transfer of funds. The share capital of Comarch S.R.L. did not change as a result of these operations and amounted to EUR 900,000 (i.e. PLN 4,190,400, according to the exchange rate of 29 March 2021),

On 8 April 2021, an increase in the share capital of Comarch (Thailand) Co., Ltd. was registered. The share capital was increased from THB 18,500,000 (i.e. PLN 2,257,000, based on the exchange rate on the date of registration of the share capital increase) by THB 32,000,000 (i.e. PLN 3,904,000, based on the exchange rate on the date of registration of the share capital increase) and currently amounts to THB 50,500,000 (i.e. PLN 6,161,000, based on the exchange rate on the date of registration of the share capital increase),

On 7 May 2021, the formal liquidation process of Comarch Software Spain S.L.U. began and the company started operating under the name Comarch Software Spain S.L.U. en liquidación,

On 30 July 2021, Comarch R&D S.à r.l. was transformed into a joint stock company Comarch R&D S.A.S. The transformation has been registered in the relevant register,

On 31 August 2021, the share capital increase in Comarch New Zealand Limited was registered with the local commercial register. Currently, the share capital of Comarch New Zealand Limited is NZD 550,000 (i.e. PLN 1,489,125, according to the exchange rate on the date of registration) and consists of 550,000 shares of NZD 1 each,

On 27 September 2021 the Extraordinary Meeting of Shareholders of Wszystko.pl sp. z o.o. passed a resolution to increase the share capital from PLN 60,000 to PLN 540,000 by creating 800 new shares with a nominal value of PLN 600 each and a total nominal value of PLN 480,000. All newly created shares were taken up by the existing shareholder, i.e. Comarch S.A. On 16 March 2022, this increase was registered in the relevant register,

On 28 October 2021 Comarch S.A. acquired 567 Series C investment certificates issued by Comarch Corporate Finance Fundusz Inwestycyjny Zamknięty (CCF FIZ) for a total issue price of PLN 25,993,831.50,

On 2 November 2021 Comarch Corporate Finance Fundusz Inwestycyjny Zamknięty (CCF FIZ) acquired 100% of the shares in Rox Star Maritime Ltd. based in Malta for EUR 6,540,000 (i.e. PLN 30,168,366, according to the exchange rate of 2 November 2021),

On 25 November 2021, an agreement was concluded for the sale of 100% of the shares in Comarch Colombia S.A.S. by Comarch Software Spain S.L.U. en liquidación to Comarch S.A. for EUR 680,289.31 (i.e. PLN 3,176,134.73, according to the exchange rate on 25 November 2021). Comarch S.A. made a transfer in respect of the transaction on 1 December 2021.

Ownership, capital changes and changes in the organizational structure of Comarch Group after the balance sheet date

On 5 January 2022, the capital of Cabinet Conseil en Strategie Informatique S.A.S was increased from EUR 500,000 to EUR 2,500,000 (i.e. PLN 11,418,000, according to the exchange rate on the date of the capital increase),

On 7 February 2022 the Extraordinary Meeting of Shareholders of Comarch Management sp. z o.o. passed a resolution to increase the company's share capital by PLN 100,000 by creating 1,000 new shares with a nominal value of PLN 100 each. The new shares were fully subscribed by Comarch S.A. Following the registration of the above increase, the company will have a share capital of PLN 500,000, which will be divided into 5,000 shares of PLN 100 each,

On 8 February 2022, there was an increase in the share capital of Comarch Pty. Ltd. from AUD 1,300,100 to AUD 2,300,100 (i.e. PLN 6,514,343.22, based on the exchange rate as at the date of the share capital increase), through the creation of 1,000,000 new shares. The shares were fully subscribed by Comarch S.A.,

On 15 March 2022, the company Comarch Software Spain S.L.U. en liquidación was liquidated,

On 29 March 2022, the extraordinary shareholders' meeting of Wszystko.pl passed a resolution to increase the company's share capital by PLN 990,000 by establishing 1,650 new shares with a nominal value of PLN 600 each. Following the registration of the above increase, the company will have a share capital of PLN 1,530,000, which will be divided into 2,550 shares of PLN 600 each. At the date of publication of this report, the increase has not been registered in the relevant register.

5

Research and Development Work



Research and Development Work

The globalization of the world economy and the liberalization of trade result in disappearance of barriers for companies and their products. The IT market becomes an open and global market where prices and quality of available products are continuously compared against each other. Along with increase in the presence of foreign capital in Poland, even IT companies conducting operations solely in the Polish market must offer competitive products from the point of view of the global market. Comarch, since the very beginning of its operations, has had a reputation as a technological company developing and successfully selling products competitive internationally. Therefore, the main strategic objectives of the Company are still the development of new competitive products to enable further development of Comarch and, as a result, increase its value. Maintaining dynamics of sales requires expenditures for

the development of products as well as their proper promotion and marketing. This applies to modifications of products and technologies, and to the development of new products. The present policy of Comarch assumes running research and development work related to the implementation of new products and standardization of products from the very beginning of their preparation for the client. Thus, even in cases when a product was developed for the needs of a particular client, part or all of the software / code may be then used for preparation of a standard product. This results in higher profitability of particular contracts and expansion of the client base. Expenses for research and development works amounted to PLN 317,1 thousand, thus reached 19,5% of revenue in 2021. Comarch allocated their internal funds, as well as actively acquiring European funds.

Subsidizing projects

Comarch SA

In 2021, under the Intelligent Development Operational Program 2014-2020 co-financed by the European Regional Development Fund, Measure 1.1, the implementation of the project "Manufacturing of "IoT Mesh" technology and supporting tools" continued.



Unia Europejska
Europejski Fundusz
Rozwoju Regionalnego



On the other hand, the implementation of the funding agreement for the project "LIVING INNOVATION - Implementing RRI Through co-creation of Smart Futures with Industry and Citizens" - LIV.IN was completed. The agreement was concluded within the Horizon 2020 Programme.



Comarch Healthcare S.A.

In 2021, an agreement was concluded to co-finance the project "Colonoscopy - do it for yourself!" with funds from the European Social Fund under the Regional Operational Program of the Malopolska Region for 2014-2020.



Rzeczpospolita
Polska



Unia Europejska
Europejski Fundusz Społeczny



Research and Development Activities in the Telecommunications Sector

Business Support Systems (BSS)

We continue to support the business activities of telecommunications operators within the area of direct contact with end-customers. The largest investments in the development of proprietary solutions are undertaken in the following directions:

- Intensive development of market-proven digital sales and self-service platforms aimed to digitize the majority of the BSS Suite customer-centric processes (enhancing the platform with selling and managing fixed services and including self-operation capabilities for SMEs/large enterprises).
- New and innovative on telecommunication market business model – subscription billing, offering telco customers the flexibility of OTT players such as Netflix and Sportify (no-invoice, no-agreement – customer connects credit/debit card to the account and has full control of the spend).
- Support for the latest technologies and market standards in terms of services provided, and preparing for dissemination of the following technologies: 5G (including new interfaces provided by the 5G network), network slicing, and SDN/NFV.
- Expansion of possibilities supporting sales staff in SFA (Sales Force Automation), mainly to provide support to the key business customer market through expansion of pre-sales processes, including contract lifecycle management and streamlined quoting mechanisms.
- Introduction of AI/ML algorithms to BSS functionalities, allowing an innovative approach to customers mainly in the areas of adjusting offers to individual customers and predicting their needs by next best action or next best offer functionalities. Also improves operators' systems in terms of fraud detection, and reduces time required for verification during bill-run processes.
- Further expansion of the standard API in compliance with market standards (such as TMF Open API), which translates into reduced time required for implementation and greater integration potential of Comarch solutions with third-party elements.
- Significant changes in architecture aimed at further improvement of the efficiency and scalability of individual solutions, reducing dependency in storage solution (Oracle-free) and primarily providing for launching the BSS solution when using in full the possibilities of highly-efficient cloud environments.

Internet of Things (IoT)

We provide solutions for mass management of functions and connectivity in the field of the Internet of Things. Further intensive development of the IoT Connect product takes place, as follows:

- The latest version is built fully using cloud technologies, which increases the number of possible implementation variants and improves scalability as customers' businesses grow.
- The first IoT Connect cloud production plant has already been deployed for a large customer in Switzerland.
- Implementations for clients in Belgium, Austria and Mexico are underway.
- The entire IoT Connect solution has been equipped with a modern UI compliant with the new Comarch guidelines, unifying the UX for all Comarch applications.
- All system functionalities are available via a highly efficient and modern API.

Integrated Assurance & Analytics (IAA)

As part of the projects ending in 2021, our team won first prize at virtual Action Week for the greatest contribution to the creation of standards and good practices with the

Catalyst project "AI-Driven Autonomous Service Assurance - C20.0.22". This cooperation will continue under the TMF initiative "Redesigning the Operations Process (AI2)".

Further work in the field of building, using and maintaining systems in the assurance domain using machine learning (ML) methods in other areas includes:

- **Automated Situation Detection**, which is a way of using the machine learning system in the combined areas of business and technology. Based on data coming directly from end users (reports via BSS systems)

and data from monitoring events and indicators (based on the implemented use cases, automated situation detection and automated baseline generation and anomaly detection), sources of dissatisfaction of end customers will be detected. The emerging patterns will be used not only for faster, holistic resolution of complaints, but also for addressing situations and anomalies before they result in complaints. In 2021, the most effective ways of linking customer complaints received with significant and varying delays to network phenomena and their consequences will be sought.

- **Automated Recommendation**, in line with the policy of applying machine learning methods, is a universal module for other use cases. It collects, organizes and improves a set of recommendations for actions and effective tools for carrying out corrective actions. In this area, activities will focus on how to maintain the knowledge base accumulated in processes using AI/ML methods.

Operations Support Systems (OSS)

New challenges in R&D OSS will deal with a sweeping redefinition of the telecommunication business. In the COVID-19 era and beyond, OSS must meet market demands - from providing automation tools for the maintenance of legacy networks to AI/ML for cloud native 5G orchestration.

On one hand, telecommunication operators need to replace legacy systems with new, cloud-native alternatives. To do this, stable tools for topology/inventory are needed. Comarch OSS meets those demands by offering a set of tools for auto-discovery of topology and reconciliation of resources in networks. For many domains, such as transport, RAN, fix access and core, consistently new

Intensive work will be carried out on the use of the adopted modular architecture of solutions in AI/ML area. This should lead to easier and faster creation of solutions in other areas of the assurance domain, such as the application of event analysis modules from automated situation detection to network signaling analysis in the customer experience management area. Work will be carried out to evaluate the effectiveness and usefulness of methods other than those currently used, one of which is analysis using neural networks.

The year 2021 will be marked by the implementation of microservices technology in our solutions, leading to a comprehensive transfer to the cloud environment. This will increase the scalability of the solution for different types and sizes of potential customers. By introducing continuous implementation/continuous development technology, it will be possible to implement zero downtime maintenance and obtain much greater flexibility in the improvement of our products' performance for our clients.

vendor interfaces are developed. Parallel orchestration tools based on Resource Catalog and CM Templates are developed. AI/ML can be used for many time-consuming operations such as massive network configuration checking, reconfiguration of sprawling legacy transport network based on hundreds of different devices, massive rollouts of new RAN (gNB), or extensive replacement of equipment in existing RAN.

On the other hand, 5G networks slicing becomes a reality with massive management of VNF software images, end-to-end testing of components, security measures for removing vulnerabilities, and AI/ML support for automatic instantiations of slices or subnets.

Current development work is aimed at:

- Support for telecommunication networks using any cloud solution: on premises, private cloud or public cloud.
- Using AI/ML as much as possible for repetitive tasks and intensive data analysis in management (configuration) and in maintenance (assurance).
- Modelling different orchestration solutions for network slices and network slice subnets.
- Preparing the solution for 5G lifecycle phases through adaptation of existing Comarch modules such as Planning Tool, Service Order Management and Resource Order Management, CM Templates, Auto-discovery and Reconciliation, Intelligent Assurance and Service Monitoring.
- Commencing work on the 5GC testing module (elimination of security vulnerabilities) as market leaders prepped 5G SA rollouts.

Field Service Management System

FSM continues development of the new Automatic Dispatcher functionality, Continuous Schedule Optimization, which applies a heuristic algorithm for task scheduling. Work started under R&D has been accelerated within projects executed for new customers.

In area of scheduling optimization engines in the product, there is also an implementation of the Schedule Simulation Module, which provides insight into future need for resources and assesses the impact of changes in the resource roster on current and planned field work.

Further work underway relates to enhancing UX/UI of FSM based on UX Audit. Adjustment of FSM mobile applications, including a redesign of the Android app, has already made significant advances, and changes in the backend of the app have been scheduled for 2H of 2021.

Apart from that, integration of FSM with Comarch BI Point has started. The aim is to improve the functionality

of a reporting module, deliver a higher number of built-in reports, and allow cross-selling between both systems.

Within projects that are under way, a dispatcher view will be also enhanced. It will combine a calendar, map, task backlog, and the possibility of filtering into the single coherent and interactive screen that is the basic tool in the dispatcher's work.

For two contracted clients, a new module with a strong relation to OSS inventory is being developed. OSS Mobile App is a game changer in the approach to data in OSS inventory. The module gives the capability to review OSS data while performing a task on site, via a mobile device (Android or iOS). Coupled with more FSM mobile features (task and orders, communication, and knowledge base with augmented reality), OSS Mobile App enhances the performance and efficiency of field tasks related to the inventory.

Research and Development Activities in the Services Sector

Comarch CRM&Marketing

As part of research and development for the Comarch Loyalty & Marketing product group, an innovative approach is being developed in the use of AI/ML algorithms to generate personalized offers for customers. The process takes into account the transaction history of a given customer and global purchasing patterns, and optimizes the sending time of marketing messages, also using AI/ML algorithms.

The loyalty mobile application has been extended to support mobile payments, which allow payments for purchases to be made directly from the application without the need to use other methods such as cards. Integration with GooglePay and Apple Wallet virtual wallets has also been implemented. Subscription support has been introduced, thanks to which customers can plan recurring payments for various types of services or products.

The Reward Shop module (an online store with rewards) has been extended to display reward recommendations for a logged in customer. These recommendations are generated by the AI/ML module.

To meet the constantly growing demand for applications in the SaaS model, a new version of the system for handling loyalty programs is being developed. This is called Comarch Loyalty Cloud, thanks to which customers can use a wide range of functionalities just a few weeks after signing the contract, without the need to implement the system.

Comarch Loyalty & Marketing solutions are also developed in the field of micro-service architecture based on open source technologies, as well as a new graphic interface based on the Comarch Design System library and micro-frontend approach.

Comarch E-Invoicing

Invariably, the main goal of Comarch E-Invoicing is to provide customers with the possibility to exchange electronic documents (in particular invoices) in accordance with the requirements of individual countries, in the post-audit and clearance models. Last year, activities related to this goal focused on direct integration with government platforms, the implementation of national formats, and cooperation with partners. The main achievements in 2021 include, among others, positive certification and direct integration with the government platform in Thailand, development related to the provision of e-invoicing in Finland

(membership of the TIEKE association and integration with Finnish banks), adaptation to the requirements of electronic invoicing in Saudi Arabia (the ESAL platform and the ZATCA system), and the commencement of development related to adaptation to changes on the Polish market as part of the integration with the KSeF (National System of e-Invoices). In addition to new certifications and integrations, Comarch E-Invoicing also ensures adaptation to changes in countries already connected to the Platform (such as Germany, France and Italy).

Comarch EDI

The heart of Comarch E-Invoicing is the EDI (Electronic Data Interchange) platform, the main goal of which is to ensure efficient and secure exchange of electronic documents for all its customers. Last year, the development of the platform consisted of the expansion of the integration network, increasing the security of data transmission and storage, and the creation of new functionalities within the EDI application. The EDI Tracking application has been enriched with a whole set of new modules, which now allow customers to visualize transaction data on editable dashboards and generate reports. New administrative functions enable effective management of users' access to data, by narrowing data visibility and introducing additional restrictions increasing security (for example, IP restrictions). Users of the Comarch EDI platform have been provided with a new EDI IAM (Identity Access Management) application aimed at standardizing access

to EDI systems and increasing security thanks to advanced user identity verification.

Comarch EDI Platform was also enriched in 2021 with new solutions tailored to the needs of specific industries. This includes improvements aimed at the production industry, such as the eVMI (electronic Vendor Managed Inventory) solution ensuring close cooperation between producers and their suppliers as part of inventory management, and a mechanism that allows you to control the flow of orders coming from customers of the EDI Platform user, which greatly facilitates planning in production plants. An example of development for specific industries may also be functionalities addressed to the automotive industry, in particular in the field of handling specific messages or adapting web interfaces.

Comarch ICT

As part of research and development for the BU ICT Comarch Infraspaces Cloud in 2021, work was carried out on the development of the IaaS part and the implementation of new PaaS services. A new IaaS cloud region was opened in Kraków along with the launch of PaaS services.

A detailed roadmap based on the data collected from customers (external and internal) was created in the PaaS area. The stages of this roadmap are being successively implemented. The services developed and implemented in 2021 include:

- A new version of the Kubernetes cluster orchestration service (versions 1.19 and 1.20)
- An SSO service operating for the internal needs of the platform, enabling a smooth transition between platform elements for a logged in user

- A Manila tool allowing files to be shared between users and facilitating integration of this tool with the Kubernetes orchestrator
- A DNSaaS module - domain server in the subscription model
- The module responsible for collecting metrics and logs from applications (Monasca) has also been improved.
- A new version of PostgreSQL has been implemented for the DbaaS service.
- A number of reconnaissance works for the Kafka tool were carried out in order to prepare it for implementation on the platform.

The implementation of backup as a service was constantly worked on. With implementation in the production environment anticipated, a manual procedure was prepared.

All views for the ICT Calculator 2.0 application have been implemented based on the mock-ups prepared by the UX/UI team.

A presentation was held at the end of 2020, which concluded with a specific list of changes and additional requirements, some of which were even implemented in 2020.

The development of the ICT Calculator 2.0 application was completed, with the solution architecture being prepared in the cloud module and the integration with external applications finalized. The production launch of the application is planned for the first half of 2022.

In the area of PowerCloud, the development infrastructure (DEV, TST, PREPROD) in the CDC in Warsaw and the production infrastructure (PROD) in the Dresden region were maintained.

Permanent further integration of the infrastructure with the Cloud Management Portal, which enables remote and independent infrastructure management, is ongoing.

The AWX, Gitlab and Ansible environments used to provide automatic services on the platform were reconfigured as part of development.

The configuration for backup as a service was prepared, and automation of monitoring and log tracking services have begun.

Advanced machine management functions (cloning, auto-scaling and commissioning automation) and the option of logging in with double authentication were implemented as part of the Cloud Management Portal development, which has slowed down since Q3 2021 due to the delegation of the team to other tasks.

We currently have a portal operating in the Dresden region, enabling service for demo customers and those with long-term contracts.

It provides the following functions: machine creation and scaling, direct access to the VM from the portal (plus advanced functions including Scheduler, Autoscaling and Boot Option), billing and basic payment (one payment option).

The launch of a second region is planned at the beginning of 2022, with installation of additional infrastructure in Kraków.

Research and Development Activities in the e-Health Sector

Comarch Healthcare provides comprehensive solutions for the health service sector. It is involved in a number of R&D projects that are aimed at developing innovative technologies supporting, for instance, management of medical institutions, electronic medical documentation, and monitoring patients (with the use of telemedical solutions).

e-Care Platform

One of the Company's solutions is Comarch e-Care, which is a telemedical platform that supports the ongoing, remote monitoring of patients' health conditions. It is applied in, for instance, cardiology, pulmonology, diabetology and senior care. The research and development work conducted on the platform enabled its expansion from an alert system to a service system. The functions that have been developed include short-term and long-term monitoring, examination management, process reporting,

The sector comprises the iMed24 medical center, which is a natural environment for developing IT tools for medicine.

As a leading provider of solutions in the field of remote healthcare in Poland, Comarch Health pursues numerous initiatives to expand the availability of telemedicine.

and automation. Additionally, work has been undertaken to rebuild the graphic interface and the way services are managed. The modifications make it possible to handle many more patients (which facilitates economy of scale and cost optimization). Support by algorithms is an additional factor that optimizes operations of the platform. Current functionalities under development result from customers' needs in Poland, other European countries, and the Middle East.

Comarch Diagnostic Point

Comarch Diagnostic Point is a product that is being constantly and intensively developed. Diagnostic points are stations equipped with measurement devices (including, blood pressure monitor, ECG event recorder, thermometer, scales and pulse oximeter), where patients may have their health parameters measured, even outside healthcare centers. Examinations are performed by patients or with staff support, and the results are evaluated by doctors using a telemedical platform. Comarch Diagnostic Point

is also available as a portable case that facilitates health checks and the transportation of devices in, for example, care facilities or in patients' own homes.

Research and development work has covered the expansion of the application used to support Comarch Diagnostic Point, adding new measurement devices, and the improvement of stationary and mobile versions.

Comarch HealthNote

In 2019, our company launched Comarch HealthNote, which is the first mobile application for patients. It is an Internet health diary that is used for collecting full and up to date information on health history directly in a mobile application. It facilitates entering measurements and examination results, illness monitoring, scanning and viewing medical documents, and making such data available to doctors. Comarch HealthNote also has a web version with a component for doctors, which is used for receiving patients' data. The solution is completely free of charge for patients and specialists.

The research and development work covered the creation of a mobile and web-based application which allows various types of data (symptoms, documentation and measurements) to be added and made available. Further functionalities are being continuously developed to make it possible to add new modules and provide integration with solutions offered by the company and external organizations.

Comarch Medical Analysis Platform (CMAP)

Comarch Medical Analysis Platform (CMAP), which stores patients' remotely recorded ECG results, is an important element of the company's ecosystem of solutions. The algorithms implemented in the platform interpret and analyze ECG results in an advanced manner, automatically detecting major disorders and offering an opportunity for early reactions to heart rhythm disorders. The solution significantly shortens the time of ECG analysis from long-term monitoring, and ensures complete verification of the results without manual signal processing. Comarch Medical Analysis Platform relies on algorithms that provide early detection of tachycardia, bradycardia, cardiac arrest and atrial fibrillation.

In recent years, there has been a major development of algorithms based on machine learning (ML). ML algorithms now match classic methods of digital signal processing (DSP). This has opened up opportunities for more effective detection of disorders and improved analysis of examinations.

With reference to **algorithms**, R&D work covers, among other things:

- Development of algorithms using machine learning methods to detect atrial fibrillation in ECG signals
- Development of algorithms to assess the quality of ECG signals
- Development of algorithms to classify morphological types of beats in ECG signals
- Use of ECG signals collected during project execution for algorithm learning (semi-supervised and supervised learning)
- Development of methods to detect disorders in the ECG signal, with special attention to rhythm disorders (atrial fibrillation and supraventricular arrhythmias) with the results of the work to be used in the Comarch CardioVest system to analyze long-term ECG signals
- Development of an expert system supporting the prediction of patients' potential problems on the basis of data collected in the Electronic Medical Documentation database
- Development of a system of automatic detection of disorders in the signal from a digital stethoscope
- Work is also being conducted to streamline medical documentation and allow the most critical information to be presented, data to be summarized, and browsing patients' medical documentation to be simplified.

With reference to **software**, R&D work covers, among other things:

- Development of the CMAP platform to operate under a service model, successful completion of CMAP certification as a platform for ECG signal analysis

“Cities of Health” Project

As a result of their R&D work, Comarch specialists have developed an innovative solution dedicated to local public authorities. It provides efficient and integrated provision of healthcare services and preventive actions for city residents. It is an analytical and reporting platform that is a component of the “Cities of Health” Project. It is used to

- Development of a uniform platform for remote monitoring based on services understood as sets of complementary examinations
- Validation of the Comarch CardioVest system used for long-term EEG analysis and certification of the system as a medical device.

analyze data, develop reports, and recommend pro-health actions. Pilot projects under the “Cities of Health” program have been launched in, among others, Łódź, Zabrze, Suwałki, Płock and Brzeg. The remote medical services under the pilot projects have been used so far by over 3,000 patients from all over Poland.

Equipment

In the field of medical devices, R&D work is focused on:

- Development of the functionality of Comarch’s own life wristband to monitor the vital signs of elderly and dependent people
- Improvement of a new version of CardioNow, a device for remote care and cardiac diagnostics
- Creation of a new CardioNow Lite device to provide long-term cardiac and event monitoring
- Creation of a new Comarch PulmoVest device for remote diagnostics of sleep apnoea
- Development of the Event ECG application for monitoring in the home environment
- Release of a new version of Comarch HomeHealth, a system for remote monitoring patients in their home environment
- Development of the new Comarch eConsultant product, a system for remote consultations for customers.

Research and Development Activities in Finance, Banking, Insurance Industries

Research and development projects that are carried out by the R&D Department primarily focus on using artificial intelligence (AI), including “deep learning”, or the use of neural networks in decision-making. Below is a more detailed description of activities in that respect:

Financial fraud prevention and detection

Goal: software that increases the detection of financial crimes, especially concerning anti-money laundering, prevention of compensation swindle, and unauthorised transactions.

Scoring for investment funds

Goal: new module for the Comarch Wealth Management platform that supports recommending investment products in terms of future return rates.

Tools such as Robotic Process Automation (RPA)

Goal: tools automating repeated back-office operations:

- KYC – supporting the process of verifying and checking the compliance of bank clients' data by generating reports from multiple integrated data sources (internal and external)
- Automated data collection and interpretation – natural language processing
- Generation of reports on reviewed customers

Cybersecurity

Goal: supporting Comarch products in the area of cybersecurity: biometry, behavioral analysis

Research and Development Activities in the IoT Sector

Comarch IoT has been focusing on intensive R&D in the area of the Internet of Things (IoT). Over half of the 250-strong team works on R&D projects. Compared to other sectors, Comarch stands out with the development of software and hardware solutions for its own needs and for other entities. The company's devices and technological solutions support the product functionalities of the other departments. A team of specialists has been developing its own communication modules, IoT devices and medical devices. The strategy includes the construction of hardware and software blocks that will support the delivery of solutions for the Internet of Things. This is a specific synergy of specializations and competencies that generates innovative solutions.

IoT Plant & IoT Lab

This is an Internet of Things research and development center, in which R&D operations are performed on a broader scale, from the development of prototypes of electronic devices (with respect to industrial designs, electronics designs, software development, mechanical prototypes, vacuum casting using 3D SLA laser printing technology, and CNC milling) to production (selective application of protective coats, and environmental tests) and assembly and post-production control inspections of products. We're also certified to produce medical devices.

Comarch IoT Platform

This cloud solution, with its stack based on the latest open source solutions, allows you to implement a variety of IoT solutions. As part of the project, platform elements are created and developed in a way that allows easy, effective and scalable management of devices, and connection to external systems through standardized interfaces. Thanks to this approach, building Comarch's offer of IoT solutions for areas such as Industry 4.0, Smart Metering and Asset Tracking becomes much simpler.

IoT Devices

The research and development work concerns products such as:

- Comarch IoT Hub – IoT gateway class devices
- Comarch communication modules (IoT MESH, BLE, 3G/4G, LPWAN: NB-IoT, LTE-M, LoRa)
- A universal hardware platform that allows you to implement paging solutions (IoT Button), and serves as a base for DALI adapters and controllers used, for example, in the area of Smart Lighting.

Research and Development Activities in the APUS Sector

In recent years, Poland has seen an increase in spending on the development of digital services for the public administration sector. The particular emphasis is placed on the design and implementation of functional and useful e-services for citizens and entrepreneurs, as well as the adaptation of the infrastructure of entities to perform tasks and handle matters electronically. At Comarch, we conduct many R&D activities on our products for central and local administration.

The development work focused on e-services using **Comarch e-Government, Comarch EZD and Comarch ERGO products**. The integration of the products was ensured by basing the data flow processes between these products on electronic documents. The definability of data flow processes from e-forms filled in by citizens on the Comarch e-Government platform to the Comarch ERGO system, where data contained in electronic documents

is processed for the purpose of issuing documents resulting from the processes, was ensured. An extremely important area of Comarch ERGO development work was to provide e-service support in the area of road construction. Approximately 40 processes have been implemented at the interface between the road manager and citizens, entrepreneurs and external institutions involved in handling cases. The processes for handling citizens' administrative, project, maintenance and inspection work have been implemented. The processes are supported by interfaces available from a web browser and in a remote version on mobile platforms. One important area of development work was the rebuilding of geodetic data import processes for the construction of regional GIS platforms, ensuring batch download of data made available by counties to the central system, while ensuring control of processed GML file data.

Additionally, attention should be paid to extensive development activities aimed at making Comarch EZD and Comarch e-Government products available via the Comarch Cloud. There has been a significant upgrade of solutions and optimisation of their architecture, enabling the platform to fully leverage its capabilities to manage, automate and scale containerised applications. The containerisation of both products in the course of R&D projects has significantly contributed to shortening the time of launching solutions at new customers.

An important area of development work was to undertake conceptual and analytical work related to providing electronic services for citizens and entrepreneurs within the new **Comarch EOS** platform. The work focused on developing the concept of electronic case handling in the office. The division of tasks between the systems comprising the platform such as: Comarch e-Government, Comarch EZD, Comarch ERGO and Comarch ERP Egeria. The basic data flow processes between these systems were defined. The requirements for the spatial localisation of documents and cases are defined, ensuring that spatial data is taken into account in the case handling and administrative decision making processes.

Comarch systematically invests and continues development work in the area of Smart City products. In the APUS sector, work in this area focuses on platforms that integrate data from sensory systems and from video analytics developed by Comarch. The development work on video analytics is divided into two main branches: the security area and the transport area. In the area of security, work is related to solutions for special services, police units and railway security. The **Comarch Smart Parking** platform, which systematically increases the offered functional scope, is an example of the second branch of solutions. This year's additions include support for various types of IP cameras, including PTZ cameras, as well as billing, payment and booking modules and the addition of algorithms for automatic reading of vehicle registration numbers, which can significantly automate parking payments and control activities. The platform forms the main axis for the overall management of the Smart City parking policy. Given the dynamic development of this area not only in Poland, but also worldwide, Comarch is offering this solution through its numerous international sales offices. The first implementations of the platform in two cities in the United Arab Emirates and the soon-to-be-launched project work in Japan are examples of such activity and success.

Research and Development Activities in the ERP Sector

Work carried out as part of R&D in the ERP sector includes both the development of current systems and the provision of new, innovative solutions. Activities in this area are focused on work automation through RPA mechanisms (Robotic Process Automation), the use of artificial intelligence (AI) and the use of new technologies in products.

In order to optimise the work of ERP sector clients, Comarch ERP XL is systematically developed with RPA mechanisms (Robotic Process Automation). RPA mechanisms enable the automatic execution of repetitive processes, reduce the risk of human error, increase the productivity and efficiency of tasks assigned to robots and reduce company costs. Within Comarch ERP XL, a number of functions were launched to automate the most important business processes of the enterprise, e.g.:

- automatic generation of contractor cards on the basis of data from the CSO;
- automatic corrections;
- automatic allocation of incoming stock to reservations;
- automatic data exchange with banks via webservice;
- automation of the analytical description of documents – analytical templates;

- planning and rescheduling of orders and automatic execution of orders/operations
- automatic assignment of the serial number to the product on the production order.

A separate team has been established in the ERP sector to focus on the implementation of functionalities based on artificial intelligence for all Comarch ERP systems. Components created by AI team are and will be used wherever it makes business sense. Recently introduced and planned mechanisms using AI/Machine Learning are indicated below:

- automatic calculation of a credit limit - implemented mechanisms allow for automatic calculation of the limit amount on the basis of previous transaction history with the counterparty. Amounts proposed by the AI may be automatically transferred to the counterparty's card or used in the form of a proposal, which the user may modify accordingly.
- automatic classification of a counterparty in terms of its financial credibility - the system assesses credibility using 4 categories (A - counterparty without payment problems, B - minor problems with receivables collection, C - considerable problems with receivables collection, D - unreliable counterparty). Additionally, a descriptive

assessment is available, informing about the length of delays or recommendations concerning further co-operation with the counterparty, as well as determination of the probability of bankruptcy of a given entity.

- automatic debt collection actions – Introduction of the "debt collection scenario" panel, where it will be possible to define a multi-step procedure (steps) for automatic debt collection actions. A given step within the scenario will generate a summons/reminder with the specification of the form in which the action will be carried out (text message, e-mail or uploading a task to the operator's mailbox about the need to, for example, make a phone call), for which documents (amounts and deadlines) and what content of the text message/email/printout is to be delivered to the customer (courtesy, pre-court, etc.).
- automatic calculation of expected payment date - in order to make company's cash-flow more realistic, but also to maximize effectiveness of debt collection activities, Comarch ERP XL will automate determination of expected payment date for receivables. Information on such date is already available in the system, while application of artificial intelligence mechanisms will allow for its automatic calculation based on many factors, treating each invoice in an individual way.
- hints for cyclical invoices – Use of a recommendation mechanism for sales invoices that can be generated cyclically. As a result of the AI algorithms, the user may receive a message with, for example, the following content: "Dear User, You issue the same invoice every week. You can set up automatic invoicing for this purpose".
- automatic calculation of demand forecast in the Merchandise Balance Sheet – the calculation of the demand forecast will be carried out on the basis of historical demand data. The algorithms will be self-learning, i.e. they will check how accurate the forecast was and modify the calculation for the next period. From the Comarch ERP XL side, the user will see in the BST simply the column "Forecasted revenue of goods", which will present the value calculated by the AI engine, similarly to other columns.
- automatic determination of ABC/XYZ classification and demand forecast for newly created goods – when a new file is created in Comarch ERP XL, there will be a possibility to call up a screen, which, on the basis of selected parameters (similar to those defined in point 1, but possible to define individually), will launch AI mechanisms defining the level of similarity with the existing goods, expressed in percentage terms. Seeing this information, the operator will be able to select (by default the commodity with the highest value will be selected) from which commodity the data for ABC/XYZ classification and demand forecast are to be taken. It will be possible to automatically download information from the most similar file without user acceptance.

In addition, functionality will be created to manually assign a similar commodity to a newly established one.

- optimization of assigning instructions - a mechanism will be made available in Comarch WMS which will automatically assign instructions to employees. The AI mechanisms, having analyzed the current workload of employees as well as their historical efficiency in performing specific tasks, will "in the background" allocate appropriate instructions, without the need for manual intervention by the warehouse manager.
- identification of goods on shelves - Comarch Mobile will automate tasks performed during visits of the sales department to shops and showrooms. By taking a photo of an exposition, artificial intelligence mechanisms will determine the facing, i.e. the number of displayed products, as well as verify the correctness of product arrangement or display of marketing materials, which will replace manual input of such information into reports.
- visual Search in e-Commerce - introduction of a new form of searching products in Comarch's e-Commerce solutions, which will offer relevant results on the basis of a photo or image uploaded. This will be an alternative to manual entry of product names or searching by clicking through appropriate categories.

A dynamically developed tool that has been using artificial intelligence algorithms (e.g. neural networks) is Comarch OCR. It allows to reduce the amount of work necessary to enter invoices into the system by fully automating this area instead of manual data transcription. Comarch OCR recognises basic document data such as contractor or account number, but also developed mechanisms for recognising items on documents. The tool is used in many ERP systems, and additionally in document circulation system it is enriched with automatic (impersonal) downloading of documents from disk or possibility of downloading them from e-mail boxes. Comarch OCR is being developed both in the context of possibility to work with invoices in different languages (at the moment documents in Polish, German, French and English) and new types of documents such as warehouse documents, contracts and employee documents.

Within the ERP sector, we make sure that our solutions are widely available and easy to implement for the potential customer. In order to enable efficient and safe work on our solutions in companies, which do not need to invest in expensive MS SQL databases, new solutions are made available also in the option to work on free of charge databases. In this respect, there is available version of Comarch ERP XL, which works on the Opensource PostgreSQL database, as well as Comarch DMS - Repository module, which works on MongoDB database.

Over the last months, a number of activities were carried out in the ERP sector to facilitate work on Comarch

systems with the use of Comarch Data Center. As a result, two possibilities of company management with the use of tools from the Comarch ERP offer, which are located in Comarch's server room, were introduced:

- **Enterprise Cloud** – a model of work, where ready (or almost ready) virtual hardware environment is available, dedicated to a specific client, together with Comarch software and other IT solutions necessary to support it.
- **Cloud Standard** – in this model, clients of Comarch ERP work on one, shared hardware environment.

A very important direction of development work in the ERP sector is the provision of systems in a user-friendly interface, consistent with the latest trends and technologies. All new systems are created in this way, but this also applies to existing systems, which were made available several or more years ago. In this respect, works on "rewriting" the existing systems to the new, web-based interfaces are constantly carried out. This applies e.g. to the largest products, such as Comarch ERP XL and Comarch ERP Optima, which so far have been available only as desktop interfaces, but eventually will be offered as web-based versions. Such approach will ensure a number of benefits for clients, among which worth mentioning are: faster and more intuitive work in the new interface, no need to install the system on user's computer or departure from work in terminal mode.

Changes related to the interface and access to applications also apply to quick-sale systems - POS. Comarch has offered the Comarch POS system for many years, which allows for ergonomic sales via touch screens located in points of sale. Recently, an mPOS application has been introduced, which not only allows sales to be made from mobile devices, but also enables a number of back office activities, such as receipt and issue of goods in the shop's warehouse. Currently, work is underway on the webPOS system, i.e. a sales application which will be available through a web browser. This will ensure intuitive work from any device, without the need to provide the shop with specialist, dedicated sales screens.

One of the important directions of R&D work was the creation of a completely new application - Comarch sPrint. It is a modern tool which can be used to easily create personalised printouts for various types of documents. The application is available in a web interface using technologies such as drag & drop, so it can be used anywhere, anytime, also on mobile devices. The solution is ergonomic, intuitive and fast, allowing anyone to create any printout efficiently. The tool is integrated with Comarch systems, which facilitates creation of own printout definitions, but also provides access to a ready-made set of printouts. Additionally, it is possible to use sPrint in cooperation sPrint can also be used with external systems due to its support for various data sources.

Within the ERP sector, we also continuously develop the Omnichannel trend in our systems. We systematically develop integrations between various sales channels (retail, ecommerce, B2B) ensuring direct data exchange and management from the ERP system level. We also develop functionalities within the broad Comarch offer, both in terms of sales systems (POS, e-Commerce) and auxiliary solutions such as WMS, Shipping, etc.

It is worth describing here changes within e-Commerce. In Comarch e-Store we have introduced a product configurator, which was created with manufacturing companies in mind. Thanks to this solution, the seller can offer customised products in his/her online shop. As far as e-Store templates are concerned, we have provided the appearance creator in which the user can create a unique layout of the shop. This tool is intuitive to use and does not require the user to have any technical knowledge. For sellers who list their goods on Allegro, we have prepared a mechanism of mass listing, which significantly facilitates and accelerates the whole sale process. The latest solution in our offer is the integration with wholesalers, thanks to which a seller can automatically download goods from an external wholesaler. Additionally, in the area of e-Commerce, work is being carried out on the application of artificial intelligence, e.g. Visual Search.

Comarch Mobile is a set of IT tools which enable the execution of business processes from the level of a mobile device such as a mobile phone or a tablet. Merchants in the field can use it to place orders, print invoices (in connection with a mobile printer), issue goods, conduct surveys or perform merchandising. On the other hand, the service technician can register the service and issue an invoice for it at the customer's premises. Comarch Mobile modules include functionality for recording the routes of employees in the field. With the help of the web application, the sales manager can analyse where the salesman is at present, what route he has been following and where he has been performing particular tasks. The Comarch Mobile Management application also makes it possible to determine the optimal route in combination with a Google map. Currently, within the Comarch Mobile Sales application, work is underway on the implementation of ML/AI mechanisms that automate the work of the sales department.

A constantly developed tool is Comarch DMS, i.e. a system for managing documents and processes. It allows you to create your own processes/applications to any extent, using both simple, ready-made elements and advanced mechanisms based on, among others The available mechanisms also make it possible to use the system in any scope, using both simple, ready-made elements and advanced mechanisms, e.g. based on the built-in C# compiler, which automatically creates DLL libraries to support the desired scenarios. Available mechanisms also allow the system to be used not only in the scenario of

cooperation with Comarch ERP, but also in integration with external systems. The system also uses AI mechanisms, which suggest next steps in the process of document circulation to the user. As part of the development work, mechanisms will be made available that will enable the creation of own "robots" within RPA, which will be able to replace repetitive actions performed by users. Such a mechanism will allow specific actions to be performed automatically (e.g. transferring or generating documents) instead of clicking manually in the system.

Another solution we are developing is a system that detects cyclicity in invoices. With the system, the user may more comfortably automate issuance of invoices by being proposed to use a mechanism of recurring invoices. It provides for more comfortable and faster automation of work using information on parties to a financial transaction, a document issue date, or products for which an invoice has been issued. The mechanism may be used in many ERP systems.

One of the new and successively developed applications is Comarch Shipping. It is a tool which communicates with courier companies and allows for ordering shipments, downloading waybills and communicating with the client via the courier companies' applications. The application can operate completely independently, it can also be connected to Comarch ERP systems.

Among the important features that have emerged in the sector is also the integration of ERP systems with Comarch Finance Cloud. Thanks to this, the systems offer the possibility to send invoices to the Apfino platform, through which it is possible to recover funds as part of debt recovery activities and financing documents by factoring. All communication takes place online, without generating or importing additional files, etc. In connection with the planned development of the Apfino platform with new functionalities and services, we are planning to constantly expand the existing integration with ERP systems, so that customers have access to these changes.

R&D activities also include the development of applications for financial reporting departments: Comarch e-Reporting and Comarch ESEF. They are a response to the emerging demand for compliant, modern, intelligent IT solutions. Comarch e-Reports is an application that allows you to effectively create, manage and analyse reports and reporting documents in your company in accordance with the Accounting Act. Comarch ESEF, on the other hand, is a tool designed for issuers of securities across the EU, allowing for intuitive construction of financial reports compliant with ESEF regulation in the XBRL standard. Recently, Comarch ESEF tool has been certified in accordance with XBRL specifications by one of the most renowned organisations dealing with XBRL - XBRL International. The certification of the system

gives therefore more certainty about the correctness of the generated reports with the ESEF regulation.

The ERP sector this year also started work on the development of a new solution for advanced production planning Comarch APS. The first version of the Comarch APS application will make it possible to control the production plan/schedule in a fast and ergonomic way ("drag and drop" function) from the level of the Gantt chart. Ultimately, the Comarch APS system will also enable the creation of simulations of production plans according to various criteria, analysis of plan execution on the basis of real production data and quick re-scheduling in order to eliminate conflicts and bottlenecks. The Comarch APS solution will be based on the following technological and functional assumptions:

- full integration with Comarch ERP solutions (Comarch ERP XL, Comarch ERP Enterprise),
- web application based on Angular/Angular-Seed technology,
- availability in two versions: stationary (On-Premise), service in the Comarch Cloud,
- production planning optimisation based on artificial intelligence mechanisms,
- ultimately, the system will be based on its own application logic,
- the system will allow you to define your own rules and constraints for optimising production planning,
- use of AI/ML mechanisms for production optimisation.

Development has also taken place in e-Commerce solutions. In Comarch e-Store we have introduced a product configurator, which was created with manufacturing companies in mind. With this solution, the retailer can offer customised products in its online shop. In the field of e-Store templates, we have provided a design wizard in which the user can create a unique shop layout. The tool is intuitive to use and requires no technical knowledge on the part of the user. For sellers listing their goods on Allegro, we have prepared a mechanism of mass listing, which greatly facilitates and accelerates the entire sales process. The latest solution in our offer is the integration with wholesalers thanks to which a seller can automatically download goods from an external wholesaler.

Currently, work is also underway on a mechanism using elements of artificial intelligence, which will allow customers of the e-Store, among other things, to search for goods using product images (visual search).

Collection support through automatic setting of a transaction limit is the last idea that is being developed. Relying on customers' payment habits and sales data a decision-making system is implemented that automatically sets a credit limit.



6

Comarch
Products

Products and Services Offered by Comarch

Comarch is a producer of innovative IT systems for key sectors of the economy, including telecommunications, finance and banking, public administration, medical, as well as large, small and medium-sized companies. A wide range of the Comarch offer includes ERP-class and financial and accounting systems, CRM systems and loyalty software, sales support, electronic document exchange, electronic banking, IT network management and billing systems, business intelligence, security and

protection of data, electronic devices and many other solutions. Apart from providing innovative IT solutions to its customers, Comarch is focused on professional customer service and on providing consulting, advisory and integration services as a uniform package, with which our customers can take full advantage of the possibilities offered by modern IT systems, including those offered in a cloud model.



Innovation Space, Comarch building SSE7, Kraków



over 50 telecoms

from around the world use comarch BSS/OSS systems in their key customer service and network maintenance activities



nearly 1 pb

of data every day Comarch systems dynamically provide information on the quality of services thanks to the analysis



Comarch solutions use AI/ML to improve customer experience



Comarch drives the market in the context of 5G technology through expansion on the Japanese market, innovations in the area of standalone 5G and network slicing



The company uses the public Azure cloud to launch BSS/OSS solutions for a key operator in New Zealand



over 50 telecoms

from around the world use comarch BSS/OSS systems in their key customer service and network maintenance activities



Comarch solutions allow records to be kept of hundreds of thousands of physical and virtualized elements of telecommunications networks

Telecommunications Division

Since 1993, Comarch's telecommunications sector has specialized in providing IT solutions for telecommunications operators around the world. Our customers in this industry include Telefónica, LG U+, Deutsche Telekom, Vodafone, KPN and Orange. Comarch BSS and OSS products help operators in transformations that are designed to increase business revenues and efficiency, simplify the IT environment, reduce costs, increase customer satisfaction, and create innovative services quickly. The group has also been awarded many times for its activities in the telecommunications industry, by analytical companies such as Gartner, Forrester, Informa, and Frost & Sullivan.

1. Comprehensive Network Overview

Comarch OSS provides the consolidated and consistent telecom network overview that allows efficient utilization of resources, rapid and accurate troubleshooting, performance optimization, and cost-effective business processes. By using a single tool for all network technologies and domains, telecoms can easily reduce the complexity of the inventory environment.

Thanks to the Network Discovery and Reconciliation module for traditional network management systems and SDN/NFV domains, Comarch provides a network-driven

inventory and minimizes the overall effort of maintaining an up-to-date network state. With such a solid foundation, CSPs can build and deploy reliable services for their customers.

Among Comarch's products addressing this business need are Comarch Real-time Network Inventory Management, Network Auto-discovery & Reconciliation, Comarch Service Monitoring, Comarch Service Catalog and Comarch Service Inventory.

2. Orchestration and Streamlined E2E Processes

Modern, multi-technology networks cannot function optimally without a high level of network function virtualization and programmability, particularly as operators seek to monetize network slicing and other benefits of 5G. Comarch's game-changing products ensure full control of the network via orchestrated network design, zero-touch service fulfillment and automated network troubleshooting and maintenance.

Thanks to Comarch's unified system chain of BSS and OSS products, the orchestration process is streamlined and handled end to end, from the moment the commercial product is sold to a customer to the configuration of

network devices. Comarch provides a single, integrated system, with product and service catalog as the driver for fully automated fulfillment.

Among Comarch's products addressing this business need are Comarch Network Planning and Design, Comarch Network Configuration Management, Comarch Resource Order Management, Comarch Customer Experience Management, Comarch Service Quality Management, Comarch Service Fulfillment and Orchestration, Comarch Field Service Management, Comarch Service Activation and Comarch Service & Resource Orchestration.

3. Full Network Cloudification

The adoption of modern virtualization technologies such as NFV (VM-based and containerized) and SDN lets operators escape the need to maintain physical devices and infrastructure, and move to more flexible and cost-effective logical and cloud-native networks.

Comarch solutions help operators with this transition by providing end to end visibility, management and orchestration of modern telco clouds and networks. It provides unified, full-stack access to all layers from customer services to infrastructure, delivering powerful

tools and interfaces for designing services and deploying them in various environments (from legacy servers to private, hybrid, multi, and public clouds) using different technologies. It also enables the move towards the edge, closer to end-customers. Comarch solutions support key industry standards in order to allow easy integration with data centers, clouds and SDN controllers.

Among Comarch's products addressing this business need is Comarch NFV.

4. AI/ML-driven Network Efficiency

In a highly competitive telecommunications environment, network efficiency is the greatest determinant of a telecommunications service provider position. Today, we are on the verge of another revolution in which the pursuit of higher efficiency in the BSS/OSS area can be supported by systems based on artificial intelligence and machine learning.

Thanks to the automation of processes, the Comarch solution provides tools adequate to the possibilities, including the most promising benefit of 5G - network sharing. It allows operators to provide customers with

services in a shorter time, and to remove disruptions in the operation of services faster.

Deep automation of operations and management of the 5G telecommunications network allows suppliers to reduce costs and, more importantly, enables customers to change their service portfolio frequently and independently. Among Comarch's products addressing this business need are Comarch AI-powered Assurance, Comarch AI-powered Network Inventory and Comarch AI-powered Orchestration.

5. 5G-ready business

Comarch's comprehensive portfolio helps operators enable exciting new 5G capabilities, model 5G services for end-customers and third-party players flexibly, manage complex cooperation, handle revenue streams between partners who participate in the whole chain of 5G service delivery, provide multi-technology networks, maximize resource efficiency, and open new markets for communication services.

From a powerful, single platform based on 3GPP standards, our customers can enable network as a service and network slicing with full multi-tenancy, orchestration and monitoring, private 5G networks, real-time inventory

with dynamic network re-configuration, 5G network self-healing, and AI-powered 5G network management. To make the 5G services even better tailored to each customer's needs, we're empowering operators with AI/ML-powered intent-driven solutions for 5G network modeling, orchestration, and processing.

Among Comarch's products addressing this business need are Comarch Real-time Network Inventory, Comarch MEC, Comarch AI-powered Assurance, Comarch AI-powered Network Inventory and Comarch AI-powered Orchestration.

6. Streamlined Cooperation with Global Partners

Diverse culture, different language, various time zones and currencies are only some of the difficulties that telecom companies struggle with when establishing global partnerships. From the customer perspective, it is crucial to have only one agreement with their provider, where they can access a single invoice, no matter where the access or service is established.

Comarch provides a way to address all of those challenges and offers much-needed flexibility in liaising between

enterprises and various third parties by allowing the modeling of any type of service. What's more, Comarch products provide operators with fully automated business processes - from contract negotiations with all parties to service activations and settlements.

Among Comarch's products addressing this business need are Comarch Enterprise Product Catalog, Comarch Wholesale Billing, Comarch Convergent Billing and Comarch Partner Management.

7. Digitized Enterprise Customer Experience

For most large enterprises, deploying and managing a communication and collaboration platform is not a core activity. They expect their CSP to provide them with efficient tools to achieve the expected results.

Comarch delivers BSS products for managing relations with enterprises, covering all aspects of telecom services

- from simple ones such as mobile and fixed voice, and data, up to complex services such as VPN, data center or cloud. Enterprise customers can seamlessly self-manage even the most complex hierarchies representing their organization structure, access detailed reporting in context, and set up real-time control or split-bill policies over service usage

Among Comarch's products addressing this business need are Comarch Enterprise Billing, Charging and Revenue Management, CRM for Telecoms, Comarch

Product Catalog, Comarch Customer Order Management, Comarch B2B Self-enablement Platform and Comarch Business Intelligence.

8. Digital Customer Engagement Across Diverse Channels

Comarch's IT products improve customers' digital experience by providing readable and easily digestible visual cues, giving a clear view of current bundle consumption, data usage, balances and limits. They are also the source of data for multidimensional reporting, 360-degree customer views, analytical actions, recommendations and personalization engines – all

of which greatly impact the entirety of the customer journey.

Among Comarch's products addressing this business need are Comarch Digital Self Service, CRM for Telecoms, Comarch Product Catalog, Comarch Customer Order Management, Comarch Convergent Billing and Comarch Loyalty Management.

9. IoT Monetization

Introducing, deploying, and managing IoT solutions can be a very lucrative business for communication service providers, whether they provide IoT connectivity, IoT services or both.

Comarch enables CSPs to become true IoT solutions providers by delivering services allowing them to cover their whole IoT value chain – from connectivity and device

management, all the way to offering IoT services such as smart factory, smart metering, asset tracking, services for other IoT verticals, and more.

Among Comarch's products addressing this business need are Comarch IoT Connect, Comarch Asset Tracking, Comarch Digitals – Factory 4.0, Comarch Smart Metering.

10. Monetization of Vertical Markets

The modern world requires services to be digitized and offered online. Subscription-based, pay-as-you-go, prepaid and postpaid services are offered to a broad customer base, and require robust revenue assurance tools.

Based on our vast experience in reconstruction and business standardization, Comarch's out-of-the-box BSS software is designed to completely automate the business processes and support various markets. No matter whether targets are private individuals or

corporate customers, the multiple options and business model-specific functionalities of our cloud billing solution will boost telecom business and increase employees' productivity. We build total experience for all engaged individuals (clients, prospective clients, product managers, financial controllers and service engineers) with only one system – Comarch Smart BSS, which is built from related Smart BSS modules such as Webshop and Self-care, Billing and Finances, CRM, Product Catalog, Voucher Management, Process Integrations.



over 25 years
of experience in finance,
banking and insurance



over 12 million
insurance clients and prospects



more than 200,000
calculated insurance
offers per month



over 2.5 million
corporate clients around the world provided
with our corporate banking software



support for nearly
400,000
microprocessor cards and tokens
compliant with the PKCS#11 standard



over 20 million
commissions calculated monthly

Financial Services Division

Comarch Financial Services specializes in developing sophisticated software and IT systems for major financial institutions in banking, insurance and capital markets. We help enterprises and institutions increase customer satisfaction by creating and implementing state-of-the-art IT solutions and services encapsulating over 25 years of experience. Our portfolio of satisfied clients includes financial institutions in more than 30 countries, among others: BNP Paribas, ING, Alior Bank, AXA, NBB, Allianz, Credit Suisse, Swiss Life, ERGO.

Products

Comarch Open Platform is a cloud-native, microservices-based digital banking platform that takes advantage of newest technologies in order to enable banks to build scalable, reliable solutions using proven tools and approaches. Thanks to ready-made corporate banking modules for quick time to market, combined together with agile co-development practices, it makes it possible for clients to take active part in implementation project, thus allowing them to make their solution truly unique.

Comarch SME and **Corporate Banking** is an omnichannel platform designed for the specific needs of large and medium-sized companies, and offered to banks providing services to such companies. It's a transactional banking system, a financial management tool, and a solution to facilitate handling of bulk payments – all rolled up into one. It also supports corporates in managing accounts of different types, buying currencies, making local and international payments, or consolidating balances across the world.

Comarch Small Business Mobile Banking is an application for small business owners to facilitate their daily tasks. It is based on cash management, invoicing and financing possibilities. Comarch Small Business Mobile Banking is a comprehensive solution that helps banks to reach micro and small enterprises with digital services.

Comarch Factoring is a platform that allows factors and their customers to manage the whole life cycle of receivables. Comarch Factoring is a customer service tool which has an advanced billing engine and multi-channel access to factoring services.

Comarch Cloud Factoring is a platform for debtors and creditors using microservices, available in the cloud. The modularity of the system allows you to easily adjust the solution to customer needs. Thanks to supporting end-to-end processes, the cost and workload of a factoring company are kept to a minimum.

Comarch Trade Finance is an application that allows entrepreneurs to manage the lifecycle of such products as

guarantees, collections and letters of credit. The solution helps to automate and digitalize the whole process of trade finance.

Comarch Relationship Manager Assistant supports banks and other financial institutions in building and maintaining solid relationships with their business customers. Designed to effectively manage sales processes, the system helps in lead scoring, performance monitoring and effective communication.

Comarch Wealth Management is an integrated, multi-module platform dedicated to retail, affluent and private banking client segments. The system supports different recipients: relationship managers - in advisory and financial planning processes, end-clients – in self-driven robo-advisory processes and bank-client communication with the use of newest technologies, managers – in monitoring and driving wealth management business.

Comarch Loan Origination enables more efficient control of credit risk and allows for a significant reduction of time needed to grant a loan. The system automates the work of client advisors managing the credit-granting process at its every stage. It allows banks to optimize the most vital elements of credit management: loan simulation, application verification, analysis of customer financial situation (including database checks), decision making and fund disbursement. The platform incorporates a full portfolio of credit products – starting from quick loans for retail customers, through mortgage origination processes, up to complex business loans for SMEs or corporations.

Comarch Custody is a modern back-office system for post-trade operations carried out by custodian banks. As a comprehensive custody software, Comarch Custody covers all functions required by custodians operating on domestic and foreign markets: Settlement & clearing, Safekeeping, Asset servicing, Client & regulatory reporting, Automated data exchange, Billing & taxation.

Comarch Digital Insurance is, on one hand, a system dedicated to insurance agents, brokers or intermediaries.

It helps them not only advise on and sell insurance products but also provide post-sales support, manage their tasks and monitor own business performance. On the other hand, Comarch Digital Insurance allows individual customers to smoothly purchase a policy online and manage their insurance product portfolio. Cloud-optimized software, ready to be deployed on Cloud.

Comarch Commission & Incentive is a comprehensive solution dedicated to insurance companies, banks, telecom operators, companies distributing financial products, and other organizations with a multilayered sales network ensuring efficient incentive compensation management.

Comarch Life Insurance software handles all areas of individual and group life, pension, and health insurance. As an insurance software product, thanks to its modular structure and unique flexibility, the system can be tailored to an individual customer's needs and requirements, including the individual life cycle of business processes and the specific nature of a particular insurance company.

Comarch NonLife Insurance is dedicated to all insurance companies offering property and casualty insurance (general insurance). The system's modular structure greatly facilitates its extension with new components as well as integration with the insurer's existing software. This core insurance solution is enhanced with a user-friendly web portal for front-office operations.

Comarch Anti-Money Laundering allows banks to significantly decrease the time and increase the accuracy of transaction monitoring – a routine task requiring much precision, knowledge and experience. The system takes the workload of performing the tasks off analyst's shoulders by reducing false-positive alerts for check. It also lets the bankers save time and focus on more demanding and complex challenges.

Comarch RPA for KYC is a Robotic Process Automation (RPA) software designed for banks and financial institutions. It optimizes KYC in AML – heavily manual, routine and prone to human error – by enhancing data collection and input. The system uses automatic processes to derive data from different sources, both external and internal, and turn them into user-friendly reports ready for further analysis in line with regulatory requirements. RPA in banking reduces the number of manual tasks.

Comarch Smooth Authentication is a risk-based authentication software that combines device recognition,

malware detection, and behavioral biometrics capabilities in order to detect online frauds in real time. It analyzes multiple artifacts coming from end user devices, behavior, and software installed on user devices, in order to calculate risk rating for each transaction. This concept of adaptive, risk-based authentication allows to strike balance between security and usability – the additional authentication factor (2FA) is used only when explicitly needed, so customers can enjoy frictionless experiences.

Comarch tPro ECC is an innovative USB token for digital signature. The token is driverless, OS-agnostic and browser-independent thanks to a connectivity mechanism that is unique in the market. Furthermore, the presence of a built-in button that the user has to press and release in order to authorize transactions makes tPro ECC an extremely effective device in countering remote attacks.

Comarch tPro Mobile is a mobile solution for strong customer authentication and transaction authorization based on two factors: what the user has – a mobile phone with an app; and what the user knows – a PIN or pattern. The application also supports biometry on mobile devices with a fingerprint scanner.

Comarch Loyalty in Finance is a modern IT system that allows enterprises – including banks and societies insurance – both easy creation and management of user-oriented loyalty programs.

By offering support to entities operating in B2C and B2B models, CLM uses mechanisms used in emerging technologies, such as artificial intelligence and machine learning, thus enabling the identification of patterns in the field of customer behavior and the creation of offers tailored to their needs.

Comarch Business Intelligence in Finance is a toolkit for accurate data analysis and reporting. Thanks to Comarch BI, business decisions can be fully based on correctly interpreted data from various sources.

Comarch BI enables quick analysis of large amounts of data in real time and presenting them on clear charts. In addition, it offers trend analysis, planning, budgeting, and reporting. It can be successfully used, among others, by analysts, product managers, actuaries, sales and marketing teams, and insurance agents.

Depending on business needs, Comarch BI can be installed directly on customer devices or available in the cloud, in the SaaS model.



Comarch building SSE6, Kraków



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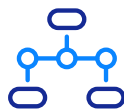
Trademarks that have been applied for
and registered worldwide



digital transformation participant



smart home and IOHT
life-saving solutions



pioneer on the European market
and the second company globally
in the world of integrating Spotify
with the infotainment system

IoT Division

Comarch IoT is the fast-growing technology wing of Comarch Capital Group, providing comprehensive, end-to-end Internet of Things (IoT) solutions combining hardware and software, distinguished by following the highest industry standards in safety and security. As a result, we have created a rich IoT ecosystem with the aid of our rapid prototyping and production facility (IoT Plant), technologies such as our cloud-based IoT Platform (Enablement), innovative hardware and software building-blocks, solutions for various verticals, and advanced connectivity modules supported by professional services.

The combination of these elements allows us to create off-the-shelf products and dedicated, tailored IoT solutions for companies and institutions around the world. Moreover, our teams offer services in the areas of consumer electronics R&D services, including the design of electronics, hardware prototyping, and production, as well as embedded software and user experience analysis.

The expansion of the Internet of Things is paving the way for new business models which are happily used and developed by Comarch IoT.

Additionally, we were an active member of the IoT group in the Ministry of Digital Affairs in Poland, where we shared our knowledge, experience, and successful implementations of IoT solutions for our clients from different parts of the world. We also continuously observe the events within the GAIA-X concept. We cooperate with our European neighbors on Industry 4.0 implementations, with our Middle Eastern partners in utilities and telemonitoring, and with associates in the Far East – in one case providing the whole IoT stack to help a leading Japanese IoT solutions company become an IoT provider.

Internet of Things

IoT solutions

Comarch for Industry 4.0 – is a comprehensive system provided in the SaaS (software as a service) model or as a customized, dedicated solution. It is composed of integrated production equipment (PLC and sensors) with receivers (Comarch IoT Hubs), connected to a cloud database (Comarch IoT Platform) which is the key to creating Industry 4.0 solutions. The solution consists of features and components, such as IoT Platform, Hardware Integration, Real-time OEE calculation, NOK Management, Digital Instructions, Notifications, ERP Integration, and Comarch BI Integration. There are three Industry 4.0 packages, with functionalities depending on which is chosen to fulfill each client's requirements.

Comarch Asset Tracking – a solution for locating devices, things, and people in logistics, industrial, medical, and many other spaces. The hardware-side system is based on Comarch radio equipment and modules following the latest standards including ultra-wideband technology (UWB). Data collection and processing takes place via the Asset Tracking application based on Comarch IoT Platform in the cloud.

Comarch Smart Metering – is a solution dedicated to the utilities sector (water, heating, gas, and electricity). The solution consists of a dedicated Comarch device for

reading data from meters in a standardized way (wired and wireless), allowing wireless data transmission using LPWAN technology through a telecommunications provider's network (NB-IoT or 4G) to the Comarch cloud-based Smart Metering application utilizing the Comarch IoT Platform (Enablement).

Comarch Smart Metering for Industry – is a concept that helps manage the production process by monitoring resource and utilities consumption and planning delivery to optimize it and ensure continuity of production. The solution is fully compatible with Industry 4.0, bringing tangible business benefits to enterprises.

Comarch Manhole Monitoring – an IoT solution for fully automatic monitoring of the opening and closing states of all hatches, including sewage wells, electrical boxes, tips, and doors. The system consists of small battery-powered devices that are mounted to the manholes or any other infrastructure that can be opened or closed with a limit switch. Each opening and closing is noted by sensors located in the gateway. Devices send an event signal to the IoT platform via standardized communication protocols (NB-IoT or 4G), then all data are collected and analyzed. The IoT platform can send alerts to the customer and generate reports.

Internet of Healthcare Things (IoHT) – is paving the way for healthcare applications to create a connected medical environment, enable patient monitoring, and improve systems. The IoT brings multifaceted value to the whole healthcare system – patients, medical staff, and management. Thanks to various types of advanced technical connections, patients can benefit from rapid notification of problems, continuous monitoring of their condition and parameters, and recording of this information.

Comarch CareMate – is a digital caregiver set that is always at hand. As a remote senior guardian, the service consists of a mobile CareMate application which, in combination with the integrated Comarch WristBand device, offers a modern solution dedicated to elderly and chronically ill people, to individuals who want to increase

their independence but whose health is at risk, to parents of children, and to caregivers of sick people who can conveniently monitor the location and safety of their loved ones 24/7.

Comarch WristBand for Industry – Comarch WristBand, as a device integrated with the e-Care Platform, creates a modern ICT system for continuous monitoring of the life functions of employees working at one-person stations for the sake of their safety. This remote employee monitoring system can be implemented, for example, in large industrial plants (such as factories, warehouses, steel mills, harbors, machining centers, open-pit mines, and large-scale companies) to enhance the safety of people performing single-person work in isolated places, often exposed to harmful conditions.

Components (building blocks) of IoT solutions and devices

Comarch IoT Platform – a highly scalable Internet of Things platform operating in a cloud-based environment. The IoT platform enables the configuration, management, and monitoring of communication between devices in the network. Thanks to its functionalities, it can collect data from billions of devices, then analyze and process them, which translates into increased efficiency of process management and reduction of costs of both operations and used resources.

Comarch IoT Hub – Comarch IoT Hub acts as a bridge between connected devices and Comarch IoT Platform. It enables secure and reliable short-distance communication, distributed control, and remote device management through a single device. The support of leading connectivity protocols provides interoperability and creates new possibilities for businesses to offer smart services.

Comarch Beacon – is a compact Bluetooth Low Energy device broadcasting a radio signal readable by any smartphone. The mobile application, combined with Comarch IoT Platform, delivers personalized, location-based content directly to the customer. The main goal of Comarch Beacon technology is to improve the customer experience at any time and anywhere..

Comarch M-BUS NB-IoT Gateway – is a gateway using narrowband IoT (NB-IoT) technology from the LPWAN family. NB-IoT is an LTE-based and IoT-optimized wireless technology allowing the creation of IoT devices with very long battery life. The device reads data from meters and sends information to the cloud, where it is translated into a common data format that allows retrofitting on existing infrastructure.

Comarch TNA – (Time and Attendance) is an innovative system for tracking and monitoring working time based on the cooperation of an original mobile application with Comarch TNA Gateway devices.

Comarch WristBand – is a wireless personal device equipped with an SOS button for monitoring and immediate call for help in life and health-threatening situations.

Comarch IoT Button – is a small device that can be used to trigger automated actions. Actions are defined using the Comarch IoT Platform and may include sending an SMS message or creating an ERP system record. Comarch IoT Button uses one of three LPWAN technology standards (EGPRS, NB-IoT, or LTE-M) to connect directly to the IoT Platform without the need for additional network configuration.

Short-series production of electronics, and research and development (R&D)

Comarch IoT Plant – a factory floor, which offers high-quality services in the field of rapid prototyping and assembly of electronic devices (EMS). It provides customers with comprehensive support at every stage of the production process, from design, through mechanical prototyping, to assembly and post-production quality control.

It includes an innovative production line, which enables short-series production of consumer electronics prototypes in a very short period, with particular emphasis on the quality of products and services offered. The IoT Plant factory floor was created in response to Comarch's own need to

assemble electronics (EMS services), and operates within the Integrated Management System of Comarch S.A.

Comarch IoT Lab – IoT Lab builds prototypes that meet the highest industry standards in terms of security and

user experience. The services offered by IoT Lab include the process of creating an industrial mold design, 3D visualization, electronics and software design, technical design and documentation, and preparing the final prototype.

Software & hardware services

Comarch's software and hardware services are a combination of expert, high-quality, comprehensive solutions for global customers and partners. Our team consists of a group of specialists and engineers who can identify and understand customer needs in the areas of software development, integration and quality assurance. Vast knowledge of modern technologies related to software and hardware helps us to provide a tailored and personalized solution in each implemented project. We guarantee an individual and flexible approach to the form and model of cooperation, our role and visibility in the project, as well as the transfer of intellectual property after the end of the project. Comarch specializes in projects dedicated to various industries, including automotive, medical, certification organizations, consumer electronics and the semiconductor industry. Our experience gained during the implementation of international projects guarantees the compliance of the technology with industry standards applicable to the offered solutions.

Services for the automotive industry

Software development – the scope of activities includes the design of applications, backends, and the integration of third-party content and service providers (such as voice assistants including Google Alexa Assistant, parking, payment, music and calendar). Services are carried out in accordance with customer requirements, using knowledge and experience in the field of network security and logic and intuitiveness in contact with the recipient.

In-car infotainment – participation in the development of embedded information and entertainment systems (infotainment). It includes the development of applications for OEMs in the field of dedicated infotainment systems.

As an example of our activities, we were the first in Europe and the second in the world to integrate the Spotify app with an infotainment system.

Integration with smartphones – the capability to connect applications installed on a smartphone and control them from the car head unit allows you to focus fully on driving, increasing the level of safety and responsiveness. The use of these applications is intuitive. You can control them using a button on the steering wheel or voice commands, without performing additional activities that may distract (for example, MirrorLink, CarPlay, Android Auto).

Standards organizations and certification

Certification test tools for standardization organizations support effective management of the certification process for devices and applications. In addition, they allow for checking compliance with current standards, especially in the area of Internet of Things communication standards. In addition, Comarch provides certificate authority tools to issue and verify certificates to confirm the identity of a given entity. In Comarch's portfolio you'll find MAC Conformance Test Tool and Comarch Automated Test Framework.

Services for consumer electronics – Comarch offers comprehensive solutions in the field of consumer electronics software and hardware. We deliver professional implementation of projects concerning embedded systems, mobile, desktop and cloud applications, quality assurance, UX/UI expertise, as well

as product management, development and maintenance. At Comarch, we are ready to turn your idea into a market-ready product. Our specialists and engineers have several years of experience in design work with a variety of top technologies, such as Bluetooth, Wi-Fi, Android, iOS, Windows, Python, Java, C/C++ and C#. We are constantly expanding our technology stack and project portfolio.

Services for the semiconductor industry – at Comarch, we also create and improve solutions in direct cooperation with manufacturers in the semiconductor industry. We offer services such as support in hardware prototyping, software and test systems development. Our team is widely experienced in providing technical support and software maintenance. We carry out projects in the fields of mobile and desktop application development.



KSI ZUS about
500 million
insurance documents
processed during a year



over 10 million
court cases handled



143
e-services ready for use on
the comarch e-office platform



over 250
local government units who use Comarch EZD
and about **200** working on Comarch Ergo



20,000
users of Comarch EZD - system for
electronic management documentation

Public Administration Division

Comarch specializes in designing, implementing and integrating modern IT systems for public administration, companies and public sector institutions. The company has experience in creating complex turnkey solutions and developing hardware and network infrastructure. Comarch has created a number of e-government solutions that meet the needs of public sector entities. The solutions are based on international standards. The most important solutions implemented in the public administration sector include:

Comarch EOS Platform – is a platform for electronic handling of matters in the office. The system ensures the digitisation of case-handling activities, enabling citizens and entrepreneurs to handle them remotely, and office staff to handle cases remotely. The platform ensures the transition from electronic document management to electronic case management, overseeing the steps that need to be taken to deal with a case.

The platform consists of integrated systems: Comarch e-Urząd, Comarch EZD, Comarch ERGO and Comarch ERP Egeria. Case handling is based on electronic documents, the data of which are transferred to the systems involved in case handling using Comarch BPMN. The Comarch EOS platform provides GIS functions used in case handling, which can be run directly from the level of systems included in the platform.

Comarch ERGO – system supporting the implementation of public tasks related to spatial management. It allows keeping over 60 registers and records in the areas of geodesy and cartography, real estate management, spatial planning, road infrastructure management, construction, environmental protection, agricultural and forestry land protection, protection of monuments, spatial information portals. The modular structure of the system enables the exchange of information between local government units and cooperating units, their departments and employees. Comarch ERGO is a comprehensive solution enabling the launch of the electronic platform of the Spatial Management Shared Services Centre.

Comarch Workflow – the platform supports the electronic (as well as paper) circulation of documents in companies and institutions (branch versions specialized for particular entities have been created). The solution makes it possible to manage documents in institutions in accordance with the guidelines of the office instruction and to define and support any workflow and document processes. For this purpose, a mature business process editor based on BPMN is used, which in cooperation with components enabling the creation of dedicated registers and forms is able to provide each institution with a fully customisable workflow-class system.

Comarch e-Government – is an online public services platform allowing local government units and central offices to perform their tasks. Intuitive tools enable self-management of the application, providing support for content creation and publishing processes. The components available on the platform include: The Digital Office, the Resident's Profile with support for electronic payments for liabilities to institutions, the Public Information Bulletin, the Information Portal and the Intranet, as well as elements supporting social activity related to the handling of the civic budget or opinions on legal acts.

Comarch ERP Egeria – is a modern ERP-class system, designed in a multi-layer model with the use of microservices and microfrontend architecture. The system has a new, intuitive user interface available from the most popular web browsers, compatible with WCAG. The system is fully functionally adapted to Polish law, supports the handling of financial and accounting processes, settlements with contractors and allows you to efficiently manage the organization, and the HR and payroll area allows for comprehensive employee service, starting from employment, through contract records, work time registration and development professional. The system is dedicated to entities from the public sector: local government administration, central administration, universities, health care, public utility companies. The system ensures data security, quick access to information, transparency and integration of processes, enables users to obtain high performance and scalability at a relatively low cost of installation and maintenance in the cloud. It is characterized by high configurability and flexibility, which allows the system to be adapted to the individual needs of each client. It facilitates and automates the daily recording of data and making the right management decisions.

Comarch Employee Portal – is a system supporting work in the company. The main task of the system is to facilitate activities related to the management of HR processes in the organization. Especially where the organizational structure is dispersed, the portal becomes a tool enabling the standardization and automation of processes. The system is dedicated to every organization and its employees, regardless of their position in the

structure. The solution provides employees with tools that allow them to handle their administrative matters themselves without contacting the HR department in person. The company's employees can quickly fill out an application for leave, settle the delegation, gain access to personal and employment data as well as other important documents, e.g. PIT or payroll.

The solution is adapted to the changing conditions of the organization's functioning, providing access to HR areas via any web browser, which supports remote or flexible work.

Comarch Security platform – is a range of products dedicated to clients associated with national and physical security and defence. The solutions are based on original and innovative projects, which are implemented within products related to video analytics, personal and object protection systems, as well as in advanced tools for controlling financial flow and monitoring ICT networks.

Comarch Video Cut – is a solution for quick analysis of secured video materials conducted post factum. The tool effectively reduces the working time of forensic analysts or security services. It enables the detection of all objects recorded on secured video footage from various devices, recorders, CCTV systems and in various formats.

The system enables events and objects to be found and video footage to be quickly filtered based on characteristics. The solution is used in special units, security services and facilities such as airports, stadiums, railway stations, car parks, large-format shops or other restricted access zones.

Comarch Smart Parking – an extensive platform for the comprehensive management of Smart City parking policies. The solution makes it possible to connect a number of sensor systems based on different technologies, such as RFID tags, radar, radio sensors, surface sensors (e.g. magnetic), cameras with video analytics, providing basic information on parking space occupancy in real time. In addition, it offers a range of configuration and management tools to improve the

work of municipal units and subordinate services. Comarch offers its own sensor layer based on cameras and Intelligent Video Analysis (IVA) technology, which makes it possible to detect not only free parking spaces but also potential offences, together with vehicle identification - number plates (ANPR). Development work in this area focused on hardware (cooperation with many camera models, including PTZ cameras), as well as functionality - new modules were created, such as billing, control, or related to payments based on e-Wallet.

Comarch Monitoring & Automation Platform – a tool for monitoring infrastructure and configuration items of client systems. The primary goal of creating Comarch MAP was to provide a single, consistent tool for monitoring a client's extensive infrastructure, along with the ability to model business processes and track architectural dependencies. The complex infrastructure detection and maintenance process is fully automated thanks to the Discovery module. The unified and consistent interface provides visualization of the monitored infrastructure while maintaining business logic.

Comarch eRecording – is a comprehensive and coherent solution combining the convenience of classic audio/video recorders with sound systems and a dedicated application for controlling the audio/video recording process. The system makes it possible to record meetings, sessions or public speeches along with the associated metadata and comments to enable efficient search of the recording during playback. Additional sources of recorded data can be external multimedia data and remote transmissions carried out via videoterminals. Comarch eRecording provides (along with the recording) a platform-independent multi-track media player.

Comarch Video-terminal – is a solution which supports popular connection and audio-video transmission standards. It is a perfect complement to Comarch eRecording solution, ensuring point-to-point connections as well as setting up multi-party calls based on standards and infrastructure of videoconferencing bridges of leading suppliers and popular platforms supporting Simulcast technology.



Comarch building in Łódź



290 million

members of loyalty programs
implemented by Comarch



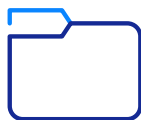
8.1 billion

transactions processed
through loyalty systems
supported by Comarch



650 million

documents processed
by Comarch's EDI



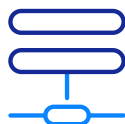
15 billion

documents stored
in Comarch ECM



20 million

generated delivery orders
in the Comarch SFA system



15 data centers

around the world

Services Division

Comarch Services Sector designs, implements and integrates modern IT solutions for loyalty programs, marketing campaign management, employee motivation management, electronic data and business information exchange, the management and flow of documents within the company, and sales process management using support systems and mobile applications. The offer also includes a comprehensive range of enterprise IT infrastructure management services.

The Services Sector carries out projects in 40 countries on five continents. Among our clients are BP, Circle K, Mapco, Prudential, Lively, Carlsberg, Unilever, X5 Retail Group, Carrefour, Metro-Nom, Auchan, Heathrow Airport, Etihad, Scandinavian Airlines, XL Axiata and True Telecommunications.

Loyalty management and marketing solutions

The offer is addressed to medium and large enterprises, and constitutes a comprehensive package of IT solutions and services that helps to build and manage loyalty programs, implement personalized and multi-channel communication, automate marketing processes and increase profits. Big data analysis tools and gamification-based systems for building engagement enable relationships between customers, partners and the brand to be strengthened.

Solutions Offered:

Comarch Loyalty Management – a system for managing loyalty programs, supporting B2C and B2B operators. It enables the launch of multiple programs on one platform and support for all areas related to running those programs (customer registration, profile management, promotions based on different currencies, communication with participants, rewarding with gifts and offers). The product is also targeted at transport and tourism companies, in particular airlines. The platform supports loyalty programs of all types of carriers, for individual customers (Frequent Flyer Programs) and in the B2B model. The system supports the creation of rules for calculating points, defining rewards and privileges.

Comarch Loyalty Cloud – a system that enables companies to comprehensively manage the full lifecycle of a loyalty program, from analysis of collected data to configuration of promotions and rewards and multi-channel targeted communication. The application is available in the service model, based on monthly subscription fees. Just a few days after signing the contract, Comarch customers can use the range of application functionalities, and access system configuration services and comprehensive business support for their loyalty program. Comarch Loyalty Cloud is periodically updated in terms of functionality, and extensions are implemented in accordance with the Comarch roadmap.

Comarch Marketing Automation – a solution that enables the design of a multi-channel path of communication with the customer and the quick and cost-effective launch of customer-oriented marketing campaigns. The system optimizes the campaign planning process, provides an

intuitive segmentation tool, simplifies the management and creation of personalized messages using the built-in editor, automates communication with customers and allows for full monitoring of campaign progress and shipping statistics. The solution helps to optimize the strategy and frequency of contact with customers through dedicated settings and with the support of AI and machine learning modules. It can be implemented as an independent marketing automation tool or an integrated part that matches loyalty modules, creating additional value and enabling the construction of strategic relationships with customers. Comarch Business Intelligence - the solution supports companies that want to build loyalty strategies through in-depth analysis of a large amount of collected data and provide a detailed picture of purchasing patterns, shopping cart value, campaign effectiveness and statistics related to the program. The system offers many types of interactive visualizations, such as charts, graphs, trend indicators, maps and tables that facilitate the presentation and interpretation of data.

Customer Analytics – a set of support services from a BI expert or a team of data scientists in the field of collecting, cleaning and auditing customer data, improving and maintaining data quality, analyzing data, creating advanced customer segmentation models, migration analysis and customer activation strategy, predictive and scoring models, marketing databases and analysis of the level of customer satisfaction.

Comarch Location Based Services – a modern technological platform enabling highly personalized marketing communication directed through mobile

application channels to people, customers, residents or passengers who are currently in a given location. The solution uses geolocation and micro-location data, on the basis of which it sends notifications via native iOS and Android applications. The platform also has a navigation module, thanks to which the user of the mobile application can find their way inside a given

building. This is very helpful for large facilities such as shopping malls, hospitals, and municipal offices. Comarch Location Based Services is integrated with beacons produced by Comarch, thanks to which the micro-location of a user is determined via the Bluetooth channel.

Data exchange and document management

As part of its offer, Comarch enables effective document management and automation of sales and business processes in the supply chain. A comprehensive approach to communication with partners from around the world, including electronic exchange of product, commercial, logistics and financial data, allows companies to achieve tangible benefits including faster access to information and a significant reduction in costs.

As part of data exchange and document management, the following solutions are offered:

Comarch EDI (Electronic Data Interchange) – a B2B2G platform based on cloud technology, which enables the automation of business processes through rapid and secure data exchange, connecting partners in the supply chain around the world regardless of the sector in which they operate. In an accessible, modern and comprehensive way, it enables business communication, allows you to fully manage the purchase and sales processes, increases the efficiency of cooperation by synchronizing data with partners, and fully controls and manages the flow of documents. It offers a number of solutions for everyone, from handling automatic document transmission processes and full integration, to support for web service and API solutions, and a web portal that does not require any integration.

Comarch EDI – is also catalog of product data in the cloud based on GS1 standards. As a certified data pool, Comarch enables direct exchange of information between business partners within the GDSN network and outside it. Data can be entered manually or automatically thanks to integration with external client systems. This enables the initiation of adding products to the portfolio by creating inquiries, international cooperation through translation tools, and negotiating prices and margins. The created

product cards contain comprehensive data models that can be modified depending on the target market, partner or sales channel (online or offline), ensuring the coherence of information shared within the organization and externally.

Comarch e-Invoicing – a cloud-based product compliant with the latest regulations, improving and automating invoicing processes for buyers (accounts payable) and sellers (accounts receivable). By supporting many document formats (including exchange with public administration entities) and distribution channels (from paper to EDI), it enables the secure and efficient exchange of e-invoices. Comarch e-Invoicing customers can use numerous functionalities as part of the service, such as electronic signature, multi-stage validation of document correctness, electronic archiving, and an e-Invoicing portal tailored to needs.

Comarch Online Distribution – a modern reporting and communication platform used by manufacturers to improve cooperation with a network of commercial partners (distributors, wholesalers). It automatically creates detailed reports on inventory and resale, using data collected on an ongoing basis from the systems of trading partners.

Comarch ICT

Comarch ICT solutions allow the easy management of a company's IT infrastructure in the field of telecommunications, outsourcing or data center services based on industry standards and technological partnerships with IT market leaders.

Comarch ICT products are designed so that the latest technologies serve the development of business. In an era of rapid changes in market and customer requirements, an experienced technological partner who will adjust their strategy and provide appropriate services in the field of IT infrastructure, outsourcing, data center services and security is a must.

Comarch Infraspaces Cloud – is a unified and flexible cloud infrastructure with the highest security standards.

The platform includes a wide range of tools supporting applications built on the basis of microservices. The cloud

solution provided by Comarch was created to help solve the problems related to the lack (or excess) of computing power, allowing performance to be adjusted to the actual demand for IT resources. The solution allows customers to take advantage of all the benefits of the cloud, such as lower IT costs, greater efficiency and flexibility of the company, and full control of resources. All this in a secure IT environment located in Comarch Data Center. We offer our clients a vast portfolio of services in IaaS and PaaS model (such as virtual machines, data bases, monitoring or Kubernetes in a services model).

Comarch PowerCloud – is a ready-to-use platform that provides all the benefits of cloud solutions with the support of the expert IBM Power Platform and management services. Using advanced tools, it provides simplified management virtualization and cloud deployment for AIX, IBM and Linux virtual machines.

Comarch IT Services – due to the dynamic changes on the IT infrastructure market, an experienced technology partner is of key importance for business development. Placing the company's IT environment in the hands of Comarch engineers and analysts is a guarantee of service continuity and required system availability.

The digital (r)evolution continues. As a company with over 25 years of experience, we provide a wide range of IT services designed with the needs of our clients in mind, so that we can deliver appropriate technical and business support.

- **Comarch IT Integration** – services designed to adapt the client's IT environment to new business and technical requirements. We support clients from the stage of analysis and design of a new IT platform, to the delivery of appropriate devices and software and beyond that to the implementation phase.
- **ICT services** – a set of services aimed at optimizing costs related to IT servicing. We offer full end-user support (Service Desk and on-site care), administration of LAN/WAN networks, server infrastructure and security infrastructure, as well as management of IT processes in accordance with good practices and the latest recommendations (such as ITIL) and agreed SLA parameters. As part of ICT services, Comarch provides services related to advanced server, matrix and database systems both remotely and directly at customer locations.
- **Network and Security Operations Center** – a solution constituting a single point of contact with the customer, providing comprehensive technical support in the field of IT infrastructure monitoring and business applications for all types of enterprises and institutions.

Provides customers with up to date knowledge of the availability and performance of individual elements of their IT infrastructure. Proactive monitoring of environments helps detect disruptions before they affect the customer's business.

- **Comarch Network Managed Services** – solutions for creating and maintaining data transmission networks (including WAN/LAN/WLAN/VPN). CNMS is a comprehensive product for the construction or modernization of existing transmission networks, for the management and administration of these networks, and for their security.
- **Comarch Service Desk** – a 24/7 multi-channel and multilingual single point of contact with a team of Comarch IT specialists. Providing full support for end users, this service is responsible for handling requests (in the form agreed with the client - chat, ticket system or telephone), reporting (in accordance with the service level agreement) and solving problems related to your IT infrastructure. We organize our Service Desk according to the best ITIL practices.

Comarch Data Center – advanced technological centers with high availability and TIER III and TIER IV architecture. They are an alternative for customers who would rather not expand their own IT infrastructure resources. Comarch SA has 15 data centers all over the world.

- **Hosting Managed Services** – Transforms data center and IT management to provide the technological flexibility you need and maximize application performance and availability. We guarantee the right specialists, processes, security and technology in local cloud and networks to optimize data center services.

- **Comarch Multicloud Management** – a cloud platform management service from external suppliers (such as MS Azure and AWS). Thanks to the continuous training of Comarch ICT engineers, our clients do not have to worry about the need to constantly update their knowledge about individual cloud services from different suppliers, or about potential problems caused by migration to the cloud (such as the inability to optimize resources and higher costs than planned).
- **Comarch PowerHosting** – fully managed services for the IBM Power platform. The comprehensive service for the delivery and maintenance of the IBM Power platform is provided in three models - a virtualized cloud, hosting of

the client's hardware in the Comarch Data Center, and remote services implemented on the client's existing equipment at his premises.

- **Mainframe Services** – Provides fully managed support and services for mainframe systems. Provides technical and business assistance in the process of installation,

configuration and maintenance of Db2 products. Additionally, we provide consulting services in the field of capacity management, progress tracking and migration to higher versions of data management software.



Global Operations Center, Kraków



Comarch Data Center, Kraków



more than
90 Hospitals
use our systems



about
40,000
users a day benefit
from our systems



more than
200
outpatient clinics
use our software



more than
20,000
patients were included in our
remote medical care projects



we support
Healthcare
24/7/365

The e-Health Division

Comarch e-Health offers a comprehensive ecosystem of products, consisting of EHR, Telemedicine, Hospital and Medical AI Clouds. Integration of these platforms ensures coordinated healthcare, and supports patients, their families, and medical personnel. The offer includes, among other things, mobile applications for patients, IT systems for hospitals, and software for health record management in medical facilities, cities, and regions. Comarch e-Health is a provider of innovative remote medical care solutions, based on our own software, devices and medical infrastructure.

Comarch HealthNote – is an Internet health diary that allows the collection of complete and up-to-date health history directly in a mobile application. Users can enter vital signs, measurements and test results, monitor their symptoms, scan and view medical documents, and share this information with physicians. Thanks to integration with the largest network of medical laboratories in Poland, patients can also check in the app the results of tests performed at any test point of this chain.

Comarch Hospital Cloud – is a set of systems for the comprehensive management of medical facilities, regardless of their specialization and size - from small offices to multi-hospital complexes. Interoperable, integrated IT systems are tailored for each stage of patient care. These are intuitive tools that coordinate staff activities, increasing work ergonomics. They have been designed for all employees of medical facilities, taking their roles, duties, and entitlements in the organization into account. All data are stored in a secure Comarch cloud, so there is no risk of loss or unauthorized access. Within Comarch Hospital Cloud we offer Comarch Mednote, Comarch Optimed NXT, Comarch EDM, Comarch Concierge.

Comarch medNote – is a modern, intuitive application for managing any doctor's office. It organizes medical records, provides information about the patients, and minimizes the time taken by formalities and paperwork. The system allows the creation of e-Prescriptions, e-Referrals, and other types of medical documents.

Comarch Optimed NXT – an advanced IT system for medical facility management (HIS), facilitating holistic organization. It has six basic modules and more than 30 additional modules, covering all specializations. It provides integration with healthcare providers, services and peripheral systems. The system can be operated on tablets, which allows access to information about the patients directly at their bedsides. Comarch Optimed NXT is designed for all medical facilities, regardless of the structure and type of services provided. It supports, among other things, the management of electronic health records, patient visits, issuing e-Prescriptions, and e-Referrals. It is also a functional tool for facility managers.

Comarch EHR – a system for managing electronic health records in all types of medical entities, including at regional level. Central access to documents from different systems enables the efficient collection and processing of medical data. The solution allows the exchange of information between institutions, which speeds up the diagnosis process and avoids redundant testing.

Comarch Concierge – an online patient portal that provides multi-channel communication and continuity of medical care. Comarch Concierge facilitates the exchange of information between medical facilities, physicians, and patients. It enables remote registration, ordering e-Prescriptions, receiving test results, and medical consultations.

Comarch Telemedicine Cloud – is an open cloud platform that enables remote monitoring of patients. All information from systems, applications, and measuring devices is transferred to the Comarch e-Care platform, then analyzed and made available to medical personnel. Thus, the process of diagnosis, treatment, and prophylaxis is optimized and coordinated. What is more, some services are transferred outside medical facilities. Comarch Telemedicine Cloud is a flexible and scalable solution that allows existing elements to be modified and new devices, procedures, and operation schemes to be added.

Comarch e-Care Platform – the basis of Telemedicine Cloud is the Comarch e-Care platform, which receives and processes medical data. Analysis is based on artificial intelligence (AI) learning algorithms, which immediately recognize and mark irregularities even among an immense amount of information. AI, in combination with the developed procedures, supports medical staff in providing effective care. The Comarch e-Care platform also enables online consultations and remote descriptions of test results, significantly increasing access to high-quality medical services.

Comarch Diagnostic Points – are stations equipped with measuring devices (blood pressure meters, event ECG recorder, thermometer, scales and pulse oximeter), where patients can perform measurements of vital signs outside medical facilities. Measurements are

taken independently by the patient or with the support of medical staff, and then evaluated by physicians through a telemedicine platform. Comarch Diagnostic Points are also available in the form of a mobile suitcase, facilitating the transport of the devices, and monitoring patients' health at, for example, nursing homes or onboard aircraft.

Remote Cardiac Care – enables the detection of abnormalities such as tachycardia, bradycardia, ventricular tachycardia, ventricular fibrillation, flutter, and more. It allows long-term diagnostics outside the hospital environment. Remote Cardiac Care can be implemented for hospitalized patients, and in overseeing the process of home rehabilitation.

Personalized remote care for chronically ill patients – the service uses the possibilities of monitoring important parameters thanks to the Comarch HomeHealth application communicating with personalized sets of sensors (ECG, pulse oximeter, spirometer, glucometer, blood pressure monitor, body composition analyzer and scales) and uploading the results to the e-Care platform. In addition, it enables the use of surveys to monitor the state of health and progress of therapy, and real-time video consultation with a medical professional.

Remote Pulmonary Care – allows monitoring of patients suffering from asthma, COPD, and other pulmonary disorders. Regular spirometry, pulse oximetry and peak expiratory flow measurements are taken. These, along with constant specialist control, increase patient safety and comfort.

Remote Specialist Care – allows patients to consult specialists about their health conditions. Measurements of vital signs can be performed by patients, their carers or medical staff. Based on the results, the patient can consult an attending physician remotely or arrange for a home visit. The physician can also call an ambulance if required.

Telemedical devices – Comarch has its own R&D center, where innovative medical devices are designed, tested, and manufactured. Among them are telemedicine solutions for cardiac diagnostics (Comarch CardioNow and CardioVest). New telemedical solutions are being constantly developed.

Comarch Remote Medical Care Center, where medical staff monitor patients' health 24/7, plays a pivotal role in our telemedicine offer. Remote Medical Care Center:

- Brings together qualified medical personnel, including paramedics, midwives, physicians of various specialties, dietitians and physiotherapists
- Monitors patients' health around the clock, including weekends and holidays
- Intervenes in cases of automatically detected anomalies, parameterized individually for each patient (exceeded norms and worrying measurements), as well as when a patient makes a call for intervention
- Uses medical procedures that allow faster and more targeted intervention

Comarch Healthcare S.A. has implemented and certified a quality management system for ISO 13485 medical devices. The Comarch e-Care platform and manufactured telemedicine devices are certified medical devices.

iMed24 Medical Center – as a part of Comarch Healthcare S.A., this medical facility is a natural environment for the development of services dedicated to the health sector. As such, iMed24 was the first medical center in Lesser Poland to offer remote medical care (the number of people covered by those services exceeded 6 000). The facility employs approximately 100 physicians, from over 30 specializations.



Comarch Diagnostic Point allows to take basic measurements of vital parameters: body weight and temperature, blood pressure, saturation, ECG.



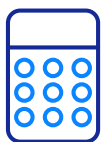
over 9,000

companies are using the Comarch iBard backup and data exchange in Comarch iBard



more than 2,200

of web stores launched based on Comarch e-Store



more than 3,200

accounting offices in the iKsięgowość24 community



more than 31,000

companies use paid solutions Comarch Clouds



over 100

successfully implemented dedicated business intelligence projects



300,000

reports delivered monthly

ERP Division

Comarch ERP Enterprise (CEE) – is an ERP software developed for large enterprises with an international profile, with a particular focus on the needs of manufacturing and trading companies. This modern, web-based ERP system can successfully map the structures of any company, including multi-company ones. The solution has very high performance and scalability works on various database platforms and operating systems. The open architecture of CEE allows you to integrate your modules and applications. The Business Services Integration Engine (BIS) is responsible for data integrity and ease of integration with external solutions. CEE is a system considered to be an ERP 4.0 solution enriched and integrated with many modern Comarch solutions: POS, mPOS, MOS, OCR, DMS, e-Store, or BI.

Comarch ERP XL – for many years has been the most popular ERP system in Poland, used by nearly 7000 companies from various industries. This solution is recommended for medium and large manufacturing, retail and service companies. Each year nearly 400 new companies decide to implement it. They appreciate its rich functionality and great flexibility in modeling all business processes. The system is open and has built-in IoT, AI, and RPA components needed for process automation and integration with external devices, such as e.g.: all kinds of sensors, sensors, or production machines. This uniform environment is complemented by warehouse management tools (including WMS) and electronic document workflow (DMS and OCR). All information entered in all business areas can be analyzed in the Business Intelligence module, which is designed to support management in making effective decisions.

Comarch ERP Optima – is the most popular software in Poland, created for small and medium-sized companies of any industry, that support sales, management, accounting, human resources, and payroll. Thanks to built-in dedicated solutions it is the most popular accounting software among accounting offices and tax advisors. Comarch ERP Optima system is available in desktop model and as a service ("cloud"), allowing users to comprehensively manage processes in the company over the Internet. For a fixed monthly subscription fee client receives access to software supporting the online management of the company via a web browser.

Comarch ERP XT – innovative system for management of small companies in Poland and Germany. Thanks to the modular structure, the user decides independently which functionalities he wants to use and which he wants to pay for. The system is available through a web browser

as well as through an application for a mobile phone (iOS&Android) which enables free work and access to information, anywhere and anytime. The simple and intuitive program allows to issue an invoice in a few seconds, and at the same time perfectly suitable for more advanced users thanks to the possibility of using the warehouse, simplified accounting, or full accountancy. Additional solutions such as e-Store or e-Sale allow you to quickly set up your online store and integrate it with popular sales websites (e.g. Allegro, eBay). The POS module will ensure retail sales in stationery stores, and factoring and debt collection services will free the frozen funds in invoices and improve the financial standing of the company. In addition, every month each user will benefit from 20 pages of cost documents free of charge within the OCR service, and thanks to the free data exchange service (IWD) with the accounting office, he will regularly receive information about taxes to be paid.

Comarch Moje BR – is a free application for invoicing and communication with an accounting office. Each month, clients of the application can issue up to 10 sales invoices, and thanks to OCR technology, they can add up to 20 pages of cost documents using their phone's camera. Simply take a photo and the invoice data will automatically transfer to the application. With the built-in messenger, users can contact their accounting office at any time and speed up information exchange and document workflow. The free invoicing application is designed for the smallest companies and the self-employed who need a mobile tool for invoicing and entering cost documents to grow rapidly and save time.

Comarch OCR – is a tool for Optical Character Recognition (OCR) of scanned invoices. The service reads documents and then transfers recognized data to accounting software, e.g. to VAT registers. Thanks to the available OCR API, the service can be integrated with external programs.

Comarch POS and **Comarch mPOS** are applications dedicated to handling processes in stationary points of sale, both related to the sale of goods and to organizing the store's back office and warehouse. Comarch POS is a solution designed for stationary cash desks which enable sales and after-sales support for store customers, execution of processes of preparing goods for customer orders placed in other channels within unified commerce, support of deliveries and issues, and execution of stocktaking processes. Comarch mPOS is an application dedicated to mobile devices equipped with the Android system. It enables the execution of processes in the back office of a store

and supports customer service directly on the sales floor. Together with the OMS system, the applications constitute a uniform environment dedicated to managing multi-channel sales, by the unified commerce idea.

Comarch Mobile – a set of applications that enable the execution of sales, service, and purchase processes from the level of a mobile device such as a phone or a tablet. Using Comarch Mobile Sales, a salesman can plan a sales visit, register an order from a client, print an invoice in the client's office, or conduct a survey with the client. A service technician working in the field, using Comarch Mobile Service, will register the repair process, accept a service order and settle it with the customer. Comarch Mobile Management is a tool for managers that enables them to schedule sales visits for employees in the field, check their execution and monitor the route of sales and service technicians.

Comarch WMS – a solution that enables the comprehensive operation of a high-storage warehouse. The package includes: Comarch WMS Zarządzanie and Comarch WMS Magazynier. Comarch WMS Zarządzanie is a tool for warehouse managers and system administrators, designed to control warehouse operations and manage the flow of goods within an extensive warehouse structure. The tool's graphical interface makes it possible to manage employee tasks, including multi-stage, complex warehouse processes.

Comarch WMS Magazynier – is a tool that streamlines warehouse workers' daily work. Using an application running on an online collector, a warehouse worker is informed about tasks awaiting them and is guided step by step through the execution of tasks assigned by a manager. Comarch WMS cooperates with Comarch ERP XL.

Comarch Magazynier – the application is designed for mobile handling of simple warehouse processes. With its help, the user can perform one-step tasks of receipt and issue of goods from the warehouse, record transfers of goods between warehouses, and perform stocktaking. The application is compatible with the Comarch ERP XL system and can use a simple warehouse structure created on the side of ERP system.

Comarch Business Intelligence – a system based on data warehouse technology, designed for large and medium-sized companies as well as international corporations. The solution supports decision processes and reporting tasks. It supports the following industries: financial and insurance institutions, trade, services, and production.

Comarch BI Point – a web-based Business Intelligence reporting tool that enables creating, browsing, and sharing

cross-sectional reports and interactive management dashboards. An integrated repository and a built-in mechanism of managing permissions allow managing user access to selected statements and individual data models. Responsiveness of the application allows to use it also on mobile devices. With its intuitive interface and many interesting forms of data visualization, the application allows even less skilled users to prepare attractive dashboards. The tool is used in enterprises of all types and sizes. It is mainly addressed to analysts, controllers, and managers.

Comarch sPrint – a web-based tool for generating printouts. Its main task is to support the process of printing documents in a company. The application is integrated with Comarch ERP systems, and in the future, it will operate in standalone mode as an independent solution to be used with third-party systems. Comarch sPrint will allow you to use ready-made print templates (in case of integration with Comarch ERP), as well as to easily define printouts on your own, according to specific customer requirements.

Comarch IBARD – easy to use, a multifunctional tool that allows to create and schedule backup files, folders, and databases from PCs, laptops, and servers, to backup mobile devices, to share and securely store data in the cloud. The service allows for constant access to data from any device and places 24 hours a day.

Comarch IBARD is available in four languages (Polish, English, German, and French). The service has universal application and is designed for small and large companies as well as service providers such as telecommunication companies, which provide the service to their clients under their brand (White Label model).

Comarch TNA (Time and Attendance) – is a modern system for recording and managing working time, business trips, vacations, and other employee-centered processes in a company. The tool allows for manual registration of remote working hours from the level of both web and mobile applications. Thanks to this, the employer knows at what time the employee started and finished working, and also can control the employee's availability in real-time. The employee, on the other hand, has a declaration and proof of the worked hours agreed with the supervisor.

Comarch Cloud – intelligent solutions for small, medium, and large organizations from various industries, as well as for public institutions and health care in the form of public cloud and private cloud. Currently, after 20 years of consistent development of the cloud computing business, the Comarch Cloud is used by over 31 thousand companies.

Comarch Cloud Portal – a comprehensive platform for selling and managing cloud services, which supports providers in offering cloud-based services, applications, infrastructure, and other products. Comarch Cloud Portal collects all information about orders, prices, and validity of services, and enables management of cloud services.

iKsięgowość24 – it is a Community of Accounting Companies, gathering economic entities providing services and consulting in the field of accounting, human resources, and payroll, equipped with Comarch ERP Optima or Comarch Optima in the Cloud in the version for Accounting Companies. The purpose of creating a Community of Accounting Companies is to make it easier for entrepreneurs to reach the right economic entity providing professional bookkeeping, HR, and payroll services and to promote companies working with Comarch software.

Comarch B2B – is a modern Internet-based B2B platform enabling remote sales network support in the Business-to-Business model. The platform is fully integrated with Comarch ERP XL and Comarch ERP Altum systems, thanks to which all data is available directly from the ERP system. Contractors, using a web browser, have access to always up-to-date trade offers, which can be different for each of them. Thanks to working online directly in the Comarch ERP system, all changes and news are visible in Comarch B2B without any delay. Contractors have access to the offer from any place and at any time.

Comarch e-Store – online store service for small, medium, and large companies, fully integrated with Comarch ERP management systems. Comarch e-Store allows for both B2C and B2B sales models. Integration with ERP system allows for comprehensive management of the entire order process, management of goods and clients database, as well as logistic operations, including integration with couriers, Poczta Polska, Paczkomaty, and other suppliers. In addition, Comarch e-Store provides many functions and modules which enable effective e-commerce, including integration with auction platforms, wholesalers, online payment systems, price comparison services, and tools supporting marketing activities. Comarch e-Store allows shopping from the level of the Internet browser as well as from mobile applications working on iOS and Android.

Comarch e-Sale – it is an intuitive solution for integration with popular auction services: Allegro, eBay, and Amazon. Thanks to Comarch e-Sale it is possible to place orders on popular auction services from the product range available in the Comarch ERP system. Orders from issued auctions are available in the administration panel, and thanks to direct integration with the ERP system, they are sent in an automatic synchronization process to a particular system, where further order processing takes place. Comarch

e-Sale makes it possible to view all auctions, including those prepared directly in the auction service or using another integration. Such auctions can be linked with goods from an ERP system and auction management can be automated in terms of prices or stock levels.

Wszystko.pl – a modern marketplace, dedicated to sellers in Poland, who have registered business activity. On the shopping platform, we connect sellers and buyers, and the sale of products takes place in all categories. The platform has integration with Comarch ERP management software, but it is also possible to integrate with the portal using other, popular e-commerce systems, which enable selling products on the Internet. Marketplace wszystko.pl gives the possibility of free distribution of products through additional online sales channels and gives the chance for a constant increase of clients.

Comarch HRM – a tool for self-service of employees, operating in a web browser or from the level of mobile application, intended for employees and their superiors. The main task of the application is to provide ongoing access to data related to daily activities and the formal aspect of work in the company - work schedule and time, vacations, business trips, or remote working. Moreover, the tool allows for handling such aspects of employee functioning in a company as recruitment, training records, or evaluation system.

Comarch DMS (Document Management System) – is a flexible tool for managing documents and processes in a company consisting of two modules: Workflow and Repository. The system enables the execution of different types of business processes related to registration, description, and approval of documents and tasks (e.g. invoices, contracts), as well as secure document archiving within a digital archive. Thanks to the in-built low-code platform (graphical process configurator), it is possible to quickly and easily adapt the system to any company, regardless of its industry or scale of operation. It is possible to work from the level of a desktop application, web browser, as well as mobile applications for iOS and Android devices, which, combined with automatically generated notifications, allows for shortening the time necessary for task execution. Comarch DMS cooperates with Comarch ERP systems: XL, Optima, CEE, and Altum, and is also available in a standalone variant.

Comarch e-Reports – software for creating electronic financial reports in XML format, compliant with the Accounting Act, distinguished by rich functionality (e.g. possibility of electronic signature in the application), ease of use, and the possibility of integration with ERP systems. The application generates structures of financial statements by schemas published by the Ministry of Finance.

Comarch ESEF – an application that enables the generation of annual financial reports in the European Single Electronic Format (ESEF), which defines the form in which annual reports and statements of companies listed on regulated markets of the EU are created. The application is available both in a desktop version (installed on a computer/server) and in a cloud version accessible via a web browser.

Comarch PPK – this application is designed to handle Employee Capital Plans in a company and through an accounting office. It is tightly integrated with payroll and HR modules of Comarch ERP HR but also cooperates with payroll and HR systems of other producers. So it can work independently. Key functionalities of the application

Comarch Software und Beratung AG is a line of ERP and financial-accounting systems for small and medium-sized enterprises in the German-speaking market:

Comarch Financials Enterprise – a new generation financial and accounting system, developed as a complement to Comarch ERP Enterprise, enabling complete financial management of a modern enterprise. The system is also available in a service model (SaaS).

Comarch ERP Altum – system offering functionalities for commercial and service companies. The core of the whole Comarch ERP Altum system is the Business Process Management (BPM) engine, i.e. inbuilt mechanisms enabling full or partial automation of routine company processes. The system offers an in-built Business Intelligence tool, which allows making the right decisions based on accurate analyses and forecasts available as standard. Comarch ERP Altum is suitable for retail chains, and franchise networks, as well as for retail and service companies with one-branch and dispersed structures.

Comarch ERP Suite – classic ERP system, offering proven and industry-specific functional solutions for a wide range of users.

are the ability to record data of PPK participants, monthly calculation and recording of contributions, and sending them to the chosen financial institution.

Comarch Shipping – a service that automates cooperation with courier and carrier systems. It enables generating waybills and immediate shipment dispatch with printing labels. Shipping orders can be initiated directly from Comarch ERP and

Comarch WMS systems, as well as manually from the application level. Two-way communication guarantees that the status of shipments can be monitored on an ongoing basis.

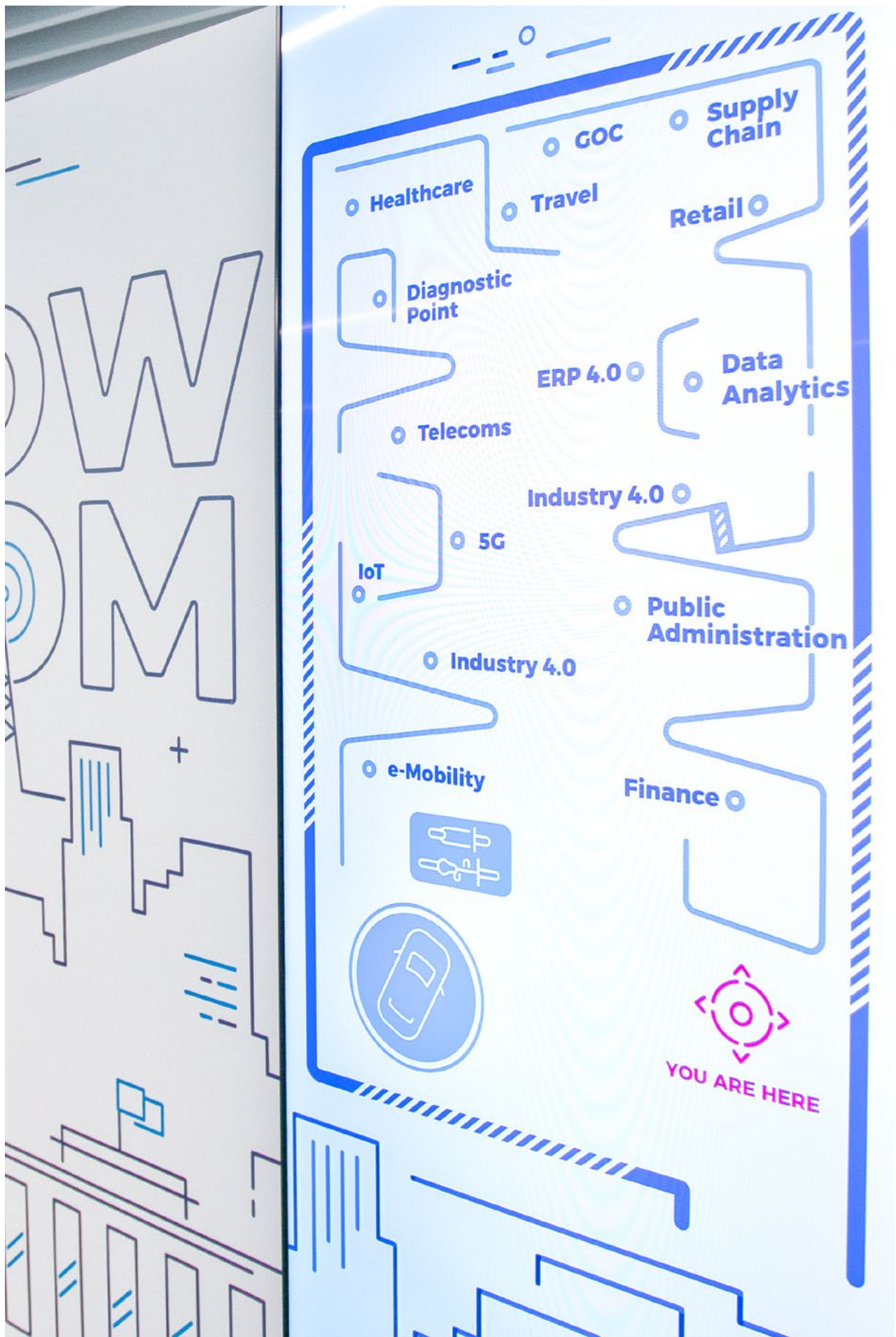
Comarch Financials Suite – a complex, certified financial-accounting system with controlling modules and electronic document archiving, allowing for work in an international environment, including different accounting standards (US GAAP, IFRS).

Comarch Financials Schilling – a classic financial and accounting system.

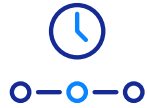
Comarch Financials DKS – a financial-accounting system developed for clients from the Austrian market, equipped also with controlling module and HR functions.

Comarch eBilanz – application for electronic sending of financial reports to the state administration bodies in Germany, working with various financial and accounting systems.

Comarch eRechnung – application for handling e-invoices in Germany by the applicable legal regulations, working with German Comarch financial and accounting systems.



Innovation Space, Comarch building SSE7, Kraków



25 years
of experience



more than
10,000
Clients each year



more than
10,000
training programs



90
certified instructors
courses in



8
of the biggest
training centers

Training Center

About the Center:

- Open and "tailor-made" business and IT training
- Microsoft Authorized Center
- Mobile training rooms

Training is carried out in five forms:

1. **Stationary courses:** in the computer lab.
2. **Remote courses:** distance learning training courses giving the opportunity to participate in the course from anywhere the participant uses a computer with internet access, a microphone and a camera. Dates of training carried out in this formula are marked with the "REMOTE" icon in the course search engine. Distance learning courses are also carried out in closed groups. When building the offer, the analysis of data obtained from own, systematically conducted training evaluation and analysis of publicly available sources of information on the situation on the education market is used.
3. **E-learning courses:** training courses that do not require the trainer's direct participation in the learning process. Courses enable knowledge acquisition according to a set template and scenario, using modern technologies and appropriate equipment (computer, laptop, tablet).
4. **Hybrid (quick learn) courses:** The course consists of short video lessons, which you can always come back to, assignments and remote meetings with the trainer.
5. **Bootcamps:** Comarch Bootcamp are intensive weekend courses focused on practical knowledge and skills necessary to enter the job market.

The Offer:

- programming (Java, .NET, PL/SQL, XML, HTML, VBA, PHP),
- application design (UML),
- operating systems (Windows, Linux),
- relational databases (Oracle, Microsoft, MySQL),
- office packages (Microsoft Office),
- computer graphics,
- network service and configuration,
- management support applications,
- systems manufactured by Comarch,
- project management,
- financial and accounting training,
- internet marketing training,
- interpersonal training.



Guarantee of quality:

- **ISO 9001:** 2000 quality certificate for training services.
- This means that the process of preparing, conducting and evaluating training is subject to rigorous procedures, and our clients can expect high standards.
- **Microsoft Authorized Center.**
- **Quality mark of The MSUES quality mark is awarded by the Małopolska Region** - Voivodship Labor Office in Kraków as part of the Center for the Quality of Education in Lesser Poland. The center is also an authorized Pearson VUE test center. As a result, it conducts examinations for professional titles authorized by the largest IT companies, including Oracle, Microsoft, Novell, IBM, Lotus and Cisco.

7

Sustainable
Business



Statement of the Management Board of Comarch S.A. to the Company's Stakeholders on non-financial reporting

Dear Stakeholders,

In view of the size of its enterprise and the scope of its operations, the Comarch Group exerts a major impact on its environment, especially in economic and social terms. Sustainable development has been one of the key foundations of the Company's strategy from the very beginning and, in the opinion of the Group's Management Board, it has made a significant contribution to the enterprises' market success.

Regardless of formal requirements, the Comarch Group has been following good practices in terms of non-financial and corporate social responsibility reporting for many years. This is because of both an internal need of communicating with stakeholders, and compliance with recommendations of corporate governance for listed companies and provisions of the Accounting Act.

Because of a business profile of its enterprise, key issues for Comarch relating to sustainable development include social one relating to employment and human rights and matters concerning diversity management, especially with regard to management and supervisory authorities. In the opinion of the Management Board of Comarch S.A. compliance with relevant standards and reporting on them is required for proper management of human resources, and thus a key element to ensure a possibility of long-term growth and maintain the enterprise's competitive advantage.

Important issues related to sustainability and non-financial reporting are the continuous improvement of management quality, the significant role of "soft" motivational factors, the promotion of physical and cultural activities among employees, the increased awareness of diversity among management and employees, and the continuous improvement of management procedures. The Comarch Group constantly conducts environmental protection activities and promotes pro-environmental attitudes among its staff. The Comarch Group has also been supporting various initiatives by local communities and numerous charity activities.

The past two years have proven that the Comarch Group was very well prepared to operate also in crisis conditions caused by the Covid-19 pandemic. The Comarch Group, thanks to its very good financial standing, significant product, sector and geographical diversification of its offer and the commitment of its employees, is able to fulfil its mission of spreading innovative technological thought created in Poland all over the world, to the satisfaction of its customers, employees, shareholders and the entire social and economic environment.

The year 2022 brought another challenge in the form of Russia's aggression against Ukraine. The Comarch Group stands in full solidarity with the Ukrainian people and on the first day of the conflict it launched an organized campaign to support the arrival of its Ukrainian employees and their families to Poland and ensure their stay. Several dozen people have been assisted, mainly women and children, but the assistance is also addressed to all Ukrainian citizens. Support is provided, among other things, through direct financing of the supply of materials needed in Ukraine, use of the car fleet to organize transport, provision of company housing, medical care at the iMed24 Medical Center, Comarch's recreational infrastructure and assistance in organizing the stay in Poland. The Comarch Group actively employs Ukrainian citizens and makes every effort to ensure continuity in the provision of IT services in Ukraine.

The Management Board of Comarch S.A. notes that the Non-Financial Information Report covers non-financial information concerning the Company Comarch S.A. and the Comarch Group. The report was prepared in accordance with the requirements of the Accounting Act of 29 September 1994, the European Commission's guidelines on Directive 2014/95/EU on the disclosure of non-financial information and based on the national Non-Financial Information Standard (SIN) issued by the Reporting Standards Foundation.

For the first time, data on key performance indicators have also been disclosed in accordance with Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on establishing a framework to facilitate sustainable investment (EU Taxonomy). This report includes data for 2021 and comparative data for 2020. No material adjustments were made to the comparative figures presented in previous reports. This report is not subject to certification or external verification by professional auditors.

Management Board of Comarch S.A.

Integrated Management System

The Comarch Group places particular emphasis on the quality of its products and services provided. Quality-raising initiatives are therefore undertaken to ensure that the ever-increasing and more specific expectations of customers operating on both the Polish and international market may be satisfied. Through continuous work on improvement and development of the Integrated Management System, Comarch has obtained:

- Integrated Management System certificate in accordance with the requirements of PN-EN ISO 9001:2015-10 Quality Management Systems, PN-EN ISO 14001:2015-09 Environmental Management Systems, PN-ISO 45001:2018-06 Occupational Health and Safety Management Systems, PN-EN ISO/IEC 27001:2017-06 Information Security Management Systems,
- Energy Management System certification in accordance with the requirements of PN-EN ISO 50001:2018-09 Energy Management Systems,
- Internal Control System certificate, meeting the requirements of article 11, paragraph 2, of the Act of 29.11.2000 on trade with foreign countries in goods, technologies and services of strategic importance for national security and the maintenance of international peace and security (as amended),
- the certificates confirming that the Quality Management System satisfies the requirements of AQAP 2110:2016 NATO quality assurance requirements for design, development, and production and AQAP 2210:2015 NATO supplementary software quality assurance requirements to AQAP 2110.

The Integrated Management System, Energy Management System, Internal Control System and AQAP System certificates were issued by the Polish Center for Testing and Certification (PCBC).

The Integrated Management System has been implemented and certified at Comarch S.A., while the implemented procedures apply to Comarch Group companies. Comarch Healthcare SA BU HIS, previously certified to the ISO 9001:2015 Quality Management Systems standard, has been added to the Comarch S.A. structure and included in the IMS certification.

The Integrated Management System ensures the correct and system-managed execution of all business processes that affect the quality of products and services. The smooth operation of the system ensures that all processes are monitored for effectiveness and efficiency, improved and adapted to constantly changing market and technological conditions and to changing customer requirements. The high quality of products and services is supported by continued care about the environment and safety of the employees and suppliers. The application by the Comarch Group of the principles of systems implemented and certified at Comarch S.A. contributes to increasing trust between the company and its customers and suppliers. It also strengthens the Comarch Group's image in the eyes of all entities interested in the effects of our company's activities in the areas of the quality of our products and services, environmental impact, energy management, ensuring health and safety at work, as well as ensuring information and data security and control in the trade of goods, technologies and services of strategic importance to national security.

The Integrated Management System Policy is the main document of the IMS. This policy contains all the organization's intentions and objectives regarding quality, environmental protection, health and safety at work, energy management and information security, which are expressed in a formal manner by top management.

Internal Control System Policy

Broadly understood technological development and rapidly growing competition put new requirements on software, implemented IT systems, and goods in circulation. The need to meet these requirements means that products supplied by the Comarch Group may be dual-use goods and be used in a manner inconsistent with the principles of national and international law. In order to prevent such practices, an Internal Control System has been implemented within the Comarch Group, the main document of which is the Internal Control System Policy. The main assumptions of this policy are the following:

- to exclude the possibility of profit making in a manner contrary to the requirements of the Internal Control System,
- to refrain from handling trade in goods when it is contrary to national and international law,
- to prevent transactions with counterparties involved in the proliferation of weapons of mass destruction,
- to enforce the principles of the Internal Control System in all workplaces related to the circulation of goods,
- supervision by the Sales Control Supervisor of the Internal Control System processes.

Each of the systems comprising the Integrated Management System covers a different subject area and is characterised by specific risks. Within the Integrated System, risks and opportunities are identified and monitored. The Quality Management System places particular emphasis on risks related to the overall functioning of the organisation and its processes, documentation and relationships with suppliers. Environmental and energy management address risks related to environmental impacts, while health and safety management addresses risks related to labour issues. The Internal Control System regulates international trade in goods and technologies and ensures that the processes carried out comply with specific legal requirements. The AQAP system, for the implementation of projects for the armed forces, contains stringent requirements and is built on the management of risks within the projects implemented. The opportunity for the organization is to start working with new customers, establishing new business relationships.

Risks are considered and taken into account at various levels – starting with policies defining the main assumptions in a given area, through procedures regulating the functioning of processes, and ending with specific actions embedded in internal mechanisms and IT systems used by the Comarch Group. The risks listed under each system and the mechanisms for managing them are described in the following section.

The Comarch Group is aware of the importance of risk management. As part of its activities, the Integrated Management System is continuously adjusted to the requirements of updated international standards, which place particular emphasis on risk-related issues – a risk-based approach to management and consideration of risk at the system level are recommended.

For the Integrated Management System, the following risks, among others, were identified as part of the company-wide process:

- risks related to the deterioration of the quality of products and services offered, failure to meet customers' quality expectations,
- risk related to the occurrence of non-compliance and instability in internal processes,
- risks related to non-compliance with applicable legal and other requirements concerning the organisation in the field of IMS, as well as negative results of external audits,
- the risk of doing business with a counterparty on a Refusal List, an entity from a restricted or prohibited country or other sanctioned country,
- risk related to negative environmental impacts,
- risks related to future energy supply due to global warming and the EU energy transition,
- risks related to the occurrence of near misses,
- risks related to the epidemiological situation,
- risk of not being able to win a contract to provide products and/or services to the armed forces in Poland and other NATO countries,
- risks related to low employee awareness of IMS,
- risks related to not maintaining IMS certification.

The risks identified in the Information Security Management System together with the mechanisms implemented are described in a separate part of the chapter.

Within the Comarch Group, there are a number of mechanisms whose effective functioning makes it possible to conclude that the company operates in compliance with the applicable internal regulations and laws – both on a national and international level. These mechanisms include, but are not limited to: the establishment of internal procedures defining processes and responsibilities, constant supervision of legal requirements, ongoing verification of the implementation of processes as part of internal audits and the use of internal IT systems dedicated to particular issues. It is also important from the point of view of the Internal Control System to monitor and react to the global situation, including possible sanctions.

In 2021, a compliance and internal audit function was established at Comarch S.A. in the form of a separate unit responsible for, among other things, ensuring compliance with legal regulations, the area of internal control and internal audit. The main tasks of the newly established unit are:

- supporting the organization in minimising the risk of non-compliance with laws, internal regulations as well as ethical and moral standards,
- enabling the identification of risks that may affect the achievement of the organization's stated business objectives and managing these risks accordingly,
- assessing the effectiveness of the organization's internal control and risk management system.

All the activities described above are aimed at minimizing the identified risk areas, controlling them and exercising ongoing control. The Comarch Group applies the precautionary principle in its operations at all levels of the organisational structure, especially in the development and market launch of new IT products.

In the case of the Internal Control System, an important role is played by information technology systems dedicated to issues related to them, e.g. a system of the contracts workflow, where individual steps enforce specific actions required by the ICS. Processes specific for the ICS, such as handling of dual-use goods and services or verification of contractors on refusal lists, have been described in internal procedures. Ongoing measures are taken to improve the Internal Control System.

For communication purposes, email addresses have been made available for employees to submit their comments. Employees also have the possibility to make anonymous reports on violations of the provisions of the implemented policies, which are forwarded to the addressees in paper form via internal mail.

Internal audits are conducted as part of the Integrated Management System, the number of which was 113 in 2021. Internal audits are carried out in all units covered by the IMS according to an annual programme. Supervision over processes specific for the ICS is also carried out as part of internal audits.

As part of the internal audits, statistics are kept on non-compliance in relation to the internal procedures of the Integrated Management System. A register of the strengths and weaknesses of the audited entities is also kept. In 2021, 26 non-conformities and 149 strengths and 80 potentials for improvement were identified.

Information Security Management System and Security Policy

Information and the information processing systems constitute critical and extremely important goodwill, which is why the Comarch Group places great emphasis on protecting data and assets, both own and those of its customers. Implemented as part of the Integrated Management System at Comarch S.A. was a comprehensive information protection system based on the PN-EN ISO/IEC 27001:2017-06 and PN-EN ISO/IEC 27002:2017-06 standards. The system has been certified by the Polish Center for Testing and Certification (PCTC) since 2008 as part of the Integrated Management System. The system comprises all internal processes supporting the Company's activity and business processes and covers all of the company's assets.

The Security Policy regulations of the Comarch Group include organisational issues, raising of employee awareness, physical asset protection, IT technical security, business continuity and response to incidents of information security breaches. Internal policies and procedures have been defined to govern the manner in which the confidentiality, integrity and availability of Comarch Group and customer data is ensured, which in particular define:

- the rules for Classifying and Handling Information,
- the Comarch Group IT network management policy,
- the rules for Administration of Systems and Applications,
- the rules for staying on Comarch Group premises and access to Comarch Group premises,
- the rules for Using Assets and Taking Hardware Out off the Premises,
- the rules for Securing Personal Computers,
- the rules for Securing Data Media,
- remote Access Rules,
- Electronic Mail Security rules,
- password policy,
- business continuity policy,
- anti-virus policy.

Many organizational and technical measures have been implemented to ensure comprehensive and multilevel protection of data and assets to counteract and minimize the results of incidents of information security breaches.

The system ensures a continuous process of monitoring and reacting to information security risks. This allows us to continuously improve the protection of data and assets of the Comarch Group and its customers. Conclusions from the operation of the safety management system are reported to the Management Board and necessary improvements and corrective actions are taken.

Among the most important risks, which are counteracted by the implemented security measures, mentioned can be made of:

- information security breach,
- unauthorized operations,
- unavailability of key services and areas of the Comarch Group,
- dignity with the law.

Within the Company dedicated business units operate to deal with information protection, determination, and implementation of standards and monitoring the security of the Comarch Group's assets.

Business continuity plans have been developed to maintain business continuity in the Company's key areas.

Supplier Sustainability

As a global organization specialising in the design, implementation and integration of advanced IT products, the Comarch Group has a significant impact on the functioning of the supply chain. Furthermore, as a company, we realise that the success of undertaken projects depends not only on us, but also, to a large extent, on our business partners. The key issue is an appropriate selection of contractors, who, to the greatest possible extent, satisfy specified criteria. Thus, we can be certain that cooperation with them will in no way disturb the stability and efficiency of processes implemented within the supply chain.

Within the Comarch Group, there is a Sustainable Development Policy for Suppliers, which defines the most important principles that the company follows when realising cooperation with its business partners. In addition, the document represents a commitment to a sustainable procurement policy and sets out expectations for key suppliers.

These commitments are implemented mainly through:

- supporting and encouraging our customers and suppliers to be ethical, socially responsible and environmentally responsible in their actions,
- ensuring high quality products and services for customers in the international market, while paying particular attention to the security of information resources, environmental aspects and the health and safety of employees,
- building good partnerships with suppliers, based on mutual cooperation, trust and integrity,
- carrying out procurement activities in accordance with legal and regulatory provisions – national and international,
- selecting suppliers with the belief that only responsible practices in the supply chain can ensure the highest quality of the final product or service, while taking care of the environment, good labour standards, business ethics and local communities.

The Comarch Group is committed to high standards in business and these should also be enforced with contractors. Therefore, the following principles are expected from key suppliers:

- managing environmental impacts in a responsible manner in accordance with ISO 14001 or a similar standard in order to reduce negative environmental impacts,
- applying occupational health and safety standards in accordance with ISO 45001 or a similar standard, so as to minimise the risks related to occupational hazards and prevent injuries,

- applying good business practices, social and environmental issues related to the supplier's operations with an understanding,
- acting in accordance with applicable law,
- recognising workers' right to organize and to bargain collectively,
- prohibiting discrimination in all its forms on the grounds of: race, social status, ethnic origin, religion, disability, sex, sexual orientation, union or political affiliation, age or marital status,
- prohibiting the employment of children under 16 years of age and the use of corporal punishment, mental and physical coercion, insults and sexual harassment,
- eliminating forced labor.

The following critical risks were identified in terms of supplier sustainability:

- risk of disturbances in stability and efficiency of processes implemented within the supply chain,
- risk of doing business with counterparties who do not comply with the requirements of the policy and who violate ethical, social and environmental protection principles,
- risk related to the insolvency of counterparties,
- risk related to the occurrence of non-compliance with legal requirements and internal procedures as far as counterparties are concerned.

Cooperation based on principles followed by the Comarch Group, consistent enforcement of the requirements for contractors and the use of verification mechanisms and ensuring compliance with the applicable regulations allow to effectively mitigate the risk of instability and non-compliance within the supply chain.

Respect for the Intellectual Property of Third Parties

As a software developer, the Comarch Group is perfectly aware of the need to respect intellectual property rights and, for its part, strives to fully respect the intellectual property of third parties, including other software developers as well as suppliers and customers. The Comarch Group complies with legal regulations on the principles of respecting the intellectual property of third parties at the level of international, Community and national law, supports the intellectual property protection system and makes every effort to ensure the highest level of protection for the intellectual property rights of third parties.

Within the Comarch Group, a Third Party Intellectual Property Respect Policy has been implemented. The primary policy objectives are:

- ensuring respect for the intellectual property of third parties,
- ensuring respect for patents, trademarks and other industrial property rights of third parties,
- using intellectual property, patents, trademarks and other industrial property rights of third parties in accordance with the legal regulations and the licences obtained by the Comarch Group,
- using third-party software exclusively within the scope of the licences granted,
- protecting intellectual property, patents, trademarks and other industrial property rights of the Comarch Group,
- protecting the Comarch Group's interests, in particular financial and legal,
- concern for the high quality of products and services offered,
- risk management as covered by the policy,
- management of intellectual property and licences.

Detailed objectives of the policy resulting from the primary objectives are:

- protecting the intellectual property of Comarch Group suppliers and customers,
- familiarising employees with the policy and enforcing compliance with it,
- achieving transparency on the use of third party intellectual property by employees,
- achieving the highest possible level of understanding and respect for intellectual property rights,
- prohibiting the use by employees and collaborators of the Comarch Group of software which infringes the intellectual property of third parties.

The Comarch Group aims to achieve the objectives of the Policy by training its employees and acting in accordance with procedures that structure the process of evaluating, selecting and acquiring software and storing licences for:

- software for internal needs of the Comarch Group: tools and office equipment,
- programming components and source codes for use in Comarch Group products,
- programming components and source codes for use in programming services provided in such a way that the effects of Comarch Group's work become the property of the customer (dedicated products).

It is the responsibility of each employee and collaborator of the Comarch Group to know and respect the Intellectual Property Rights Respect Policy and the procedures arising therefrom, insofar as they are applicable to them, i.e. in the scope of:

- responsibility for the use of the software by the Comarch Group,
- responsibility for the use of software on Comarch Group hardware by an employee or collaborator,
- how to obtain permission to use third party intellectual property in Comarch Group products and dedicated products,
- how to obtain approval for the purchase of new software.

The following critical risks have been identified within the framework of respect for third party intellectual property:

- risk of using unlicensed software for internal purposes,
- risk of illegal use of third-party software in Comarch Group products,
- risk of possible financial and legal claims and reputational damage,
- risk of non-compliance with legal requirements and internal procedures regarding respect for the intellectual property of third parties.

The minimisation of risks related to respect for the intellectual property of third parties is carried out within the mechanisms described in the section on the Integrated Management System". Both the supplier and the customer of the software have the right

to have their intellectual property rights respected. The guarantee of respect for intellectual property is the application of appropriate procedures by employees and collaborators of the Comarch Group when using such property. Execution of activities in accordance with the presented guidelines minimises the risk of non-compliance with the applicable legal regulations in this area and possible financial claims. In the event of discovering or learning of any non-compliance with this policy, as well as any infringement of third party intellectual property, the Comarch Group obliges its employees, collaborators, suppliers and customers to report such cases to the Quality and Health & Safety Department and the Legal Department via a dedicated email address.

Management Systems Implemented in Comarch Group Companies

Quality Management System for Medical Devices Comarch S.A. and Comarch Healthcare SA

In addition to the core business of manufacturing software and IT systems and providing services in this area, selected Comarch Group companies are also active in the design and development, production and marketing of medical devices and have a certified Medical Device Quality Management System in compliance with EN ISO 13485:2016.

The scope of the certificate for Comarch Healthcare SA includes design and development, production, distribution and servicing of systems for monitoring vital signs as well as post-implementation service, whereas for Comarch S.A. – design and development, own and contract production, distribution, implementation and servicing of software, products and accessories and systems for monitoring vital signs as well as post-implementation service in this scope.

The Medical Device Quality Management System certificates have been issued by TÜV Rheinland LGA Products GmbH.

With a view to improving the quality of life and sense of security, and out of concern for the health of customers, Comarch Group companies offer a wide range of medical devices. The offered products are created in response to market needs in the area of prevention and treatment, and are prepared on the basis of the latest technologies, as a result of cooperation between qualified employees and the scientific medical community. The companies of the Comarch Group thus guarantee the proper quality and safety of the products offered, professional and ethical service, as well as assistance and advice tailored to the individual needs of customers.

Quality Policies have been implemented in Comarch S.A. and Comarch Healthcare SA. In order to implement the provisions of the Policy, the Board of Directors and employees of the aforementioned companies undertake to:

- meet legal requirements and maintain the effectiveness of the quality management system,
- set objectives appropriate to the needs of the organisation,
- adapt products and services to the expectations and requirements of customers, while complying with the requirements of legislation on the manufacture and distribution of medical devices and the provision of medical services,
- market products and services that meet quality and safety requirements,
- provide reliable information on the quality and safety of the products and services offered,
- continuously and systematically take care of the quality and competitiveness of the products and services offered,
- develop cooperation with suppliers in order to improve the quality of products and services offered,
- improve their qualifications.

The means of achieving the above objectives are implemented and constantly improved quality management systems developed and based on the requirements of:

- directive 93/42/EEC Medical devices (MDD),
- regulation (EU) 2017/745 of the European Parliament and of the Council (MDR),
- EN-ISO 13485 Medical devices. Quality management systems. Requirements for the purposes of legal regulations,
- ISO 9001 standards Quality management systems – Requirements.

The following critical risks have been identified within the Medical Devices Quality Management System:

- risks related to the expansion of requirements for medical devices,
- risks related to increased certification costs and limited access to notified bodies for MDR compliance.

Risk management in the field of medical devices is an extremely important, systemically regulated issue. As part of the implemented and certified Quality Management System for Medical Devices according to ISO 13485, there is a risk management process according to ISO 14971 described in internal procedures. The process includes the rules of identifying risks related to a medical device, its accessories and software, estimating and assessing the acceptability of risks, controlling these risks, and monitoring the effectiveness of control.

In the case of medical devices, there is also a possibility of reporting medical so-called incidents, or irregularities regarding a medical device that may or may have led to death or serious deterioration of health of a patient or user of such device. A register of such cases is kept at Comarch S.A. and Comarch Healthcare S.A. Since the beginning of the activity, no medical incidents have been identified in the field of medical devices.

Quality Management System in iMed24 Medical Center (Comarch Healthcare SA)

The iMed24 Medical Center, founded in 2012, is guided by the principles of professionalism, innovation and cooperation based on trust and understanding. Many years of experience have enabled us to develop the highest standards of service, which is reflected in the certificate we have received confirming that our Quality Management System meets the requirements of ISO 9001:2015. The scope of the certificate includes the provision of health services within the

outpatient clinics and laboratories run, including the provision of remote services. The certification process is carried out by TUV Rheinland Polska Sp. z o.o.

The scope of activity of the iMed24 Medical Center related to the provision of medical services carries specific risks. Risks within the system are identified at a company-wide level. The system identified:

- risk related to the occurrence of a medical error,
- risk related to the exposure of health personnel to harmful agents,
- risk related to the failure of medical equipment, systems or power supplies,
- risk of unauthorized access to medical data,
- risk related to the occurrence of non-compliance with legal requirements and procedures in CM iMed24.

Risk management in a healthcare provider is particularly important. The entity has appropriate internal mechanisms in place to minimize identified risk areas, control them and exercise ongoing control.

Information Security Management System in Comarch S.A.S.

Comarch S.A.S. is a subsidiary of the Comarch Group, which aims to expand on the French market. The company's field of activity is offering IT infrastructure and software, especially in the health sector.

Comarch S.A.S., with a Data Centre in Lezennes, France, has an Information Security Management System. The company has obtained the relevant certificate, which proves that the management system meets the requirements of ISO/IEC 27001:2013 Information Security Management Systems. The scope of certification for Comarch S.A.S. covers the infrastructure and services hosted at the Data Center location in Lezennes, France, managed by the Comarch S.A.S. French team at the aforementioned location. The certification process is carried out by Bureau Veritas Certification Holding SAS – UK Branch.

Comarch S.A.S. has also obtained the HDS certificate, which allows it to store and process personal health data and confirms that it operates in this field in accordance with the highest standards of security and data protection. With this certificate, Comarch S.A.S. will be able to offer its customers and partners highly secure data hosting with controllability. The certification process is carried out by Bureau Veritas Certification France.

Risk management within the system is carried out on a continuous basis using an appropriate methodology. As part of risk management, appropriate internal audit and verification mechanisms are in place for the systems implemented.

HR

The Comarch Group respects and complies with national human rights standards and international labor standards, treating them as fundamental and universal. It also respects and implements labor law and health and safety regulations.

Recognizing workers' right to free association, a dialog with Workers' Representatives is undertaken. The Comarch Group has not identified any cases where there may be a violation or a serious risk of violation of the right of employees to associate and conclude collective agreements either within the organization or among suppliers.

The Comarch Group respects the prohibition of discrimination based on: race, social status, ethnic origin, religion, disability, gender, sexual orientation, union or political affiliation, age or marital status.

It guarantees freedom of opinion, conscience and religion and freedom of belief and expression. The Comarch Group promotes teamwork free of any prejudice and consciously draws strength and values from the diversity of its employees. In return, the Group makes every effort to ensure that its employees receive fair and regularly paid remuneration, are offered development possibilities, interesting and ambitious challenges and very good conditions of work.

The Comarch Group protects the copyrights of its employees and, in relation to international standards, respects intellectual property as an individual good, safe from abuse.

The Comarch Group respects the prohibition of child labor under 16 years of age, forced labor, corporal punishment, mental and physical coercion and insults, as well as the prohibition of sexual harassment, and considers the workplace to be free of such practices.

Neither Comarch S.A. nor the Comarch Group has identified any cases of human rights violations, child labor or forced labor, including in subcontractors. No complaints about respect for human rights were received.

Climate policy

Taking care of climate issues is one of the priorities of the Company's Management Board. While planning new investments and carrying out current activities, the Management Board of Comarch S.A. takes climate issues into account, which is reflected both in office investments (low- or zero-emission buildings, construction of photovoltaic installations, application of energy-efficient lighting solutions) and in established internal principles related to workplace organisation and building climate awareness among employees (introduction of company-wide solutions concerning waste segregation, propagation and support of pro-ecological initiatives and activities).

A preliminary analysis of climate policy developments identified the following potential risks:

- risk related to negative environmental impacts,
- risk of establishing cooperation with contractors who do not meet the requirements of the climate policy and infringe the principles of environmental protection,
- risk of incidents related to leaks of refrigeration and air-conditioning equipment,
- risk of increased use of energy necessary to power refrigeration and air conditioning equipment (office buildings and CDC) during periods of above-normally high temperatures.

Due to the fact that managing risks and issues related to climate is one of the important responsibilities of the Management Board of Comarch S.A., the identified risks are monitored on an ongoing basis by the Management Board, which takes all necessary actions to minimize the occurrence of events that could have a negative impact on climate and the environment. From 2020 onwards, risk management activities have assumed a systemic character, manifested in annual verification and analysis of the Company's activities in this respect. Regardless of the systemic analytical and verification activities, the Management Board of Comarch S.A. is adequately prepared to take all necessary preventive measures to minimise the negative impact of potential risks and events occurring on Comarch's climate policy.

"Declaration of Polish Business for Sustainable Development"

In March 2014, Comarch signed the "Declaration of Polish Business for Sustainable Development", thus providing assurance that it will take active steps towards the attainment of development goals set out in the 2050 Vision of Sustainable Development for Polish Business. The Declaration comprises 10 assumptions that, if implemented, will enable us in the future to live with dignity and wisely benefit from the scarce resources of our Planet.

Signing of the Declaration coincided with the Inauguration of the 3rd Stage of the Vision 2050 of Sustainable Development for Polish Business Project. The participants of the meeting were acquainted with the proposals planned for the 3rd Stage of Vision 2050. The signatories of the Declaration have an opportunity to engage in the following working groups: social innovation, sustainable production and consumption, renewable energy sources, greening the new perspective and small and medium enterprises.

The Vision 2050 project refers to the international initiative taken by the World Business Council for Sustainable Development (WBCSD). Vision 2050 is a joint project of the Ministry of Economy, the Ministry of the Environment, the Responsible Business Forum, and consulting company PwC. The aim of the undertaken activities is to integrate business in Poland around the idea of sustainable development, to indicate to business representatives the importance of challenges in this area and to strengthen the administration and business dialog to develop specific solutions to support the implementation of Poland's development goals.

By signing the “Declaration of Polish Business for Sustainable Development” Comarch has committed itself to:

- base its activities on broad cooperation, innovative thinking, and education of both own employees and society,
- conduct its business activity based on trust and dialogue,
- cooperate with academic centres and schools in the field of education of future employees,
- create conditions and development opportunities for its employees,
- promote and support the implementation of new technological solutions,
- build infrastructure and make investments on the basis of dialogue and in accordance with the principles of sustainable development,
- take actions to reduce its adverse impact on the environment,
- introduce solutions to reduce energy consumption, both in terms of implementing new technological solutions, process optimisation and education, to engage in dialogue with the government and to share their experiences on issues relevant to business and the economy,
- raise the level of ethics in business, including in relations with all groups of stakeholders.

Risk concerning the above Declaration involves failure to comply with its assumptions. Comarch is successively striving to meet them through effective implementation of processes within the Integrated Management System and implementation of all the above-described policies.



Declaration of Polish Businesses for Sustainable Development

Aware of the challenges faced by the Polish economy and fully recognizing the need to pursue a path of sustainable development, we, the undersigned, hereby commit:

- I. To running our operations based on extensive cooperation, innovative thinking and education of our own employees and society at large.
- II. To carrying out business based on trust and dialog.
- III. To cooperating with academic institutions and schools in the education of future employees.
- IV. To creating conditions and opportunities for the professional advancement of employees.
- V. To promoting the implementation of new technologies and their support.
- VI. To building infrastructure and running projects based on dialog and in line with principles of sustainable development.
- VII. To taking steps to reduce our adverse impact on the environment.
- VIII. To introducing solutions designed to reduce energy consumption by deploying new technologies, streamlining processes and education.
- IX. To communicating with the government and sharing our experience in areas relevant to business and economy.
- X. To enhancing ethical standards of business conduct, including relations with all groups of stakeholders.

Declaration of Polish Businesses for Sustainable Development

Comarch Group Code of Ethics

I. Highest ethical standards

The Comarch Group is aware of the importance of abiding by the regulations, legal provisions, working procedures, and ethical standards set by the Company. As a leader of the IT market in Central Europe, Comarch is committed to promoting ethics and to striving to be among the world leaders in fostering corporate responsibility, respect for human rights and the environmental protection. The achievement of this goal is a joint responsibility of all Comarch employees.

The present Code of Ethics has been approved by the Management Board of the Comarch Group, who is committed to regularly assess the compliance of the rules

provided in the code and to update its content further to the received feedback.

The Code reflects the ethical values that Comarch upholds and intends to abide by. For the employees of the Comarch Group, it constitutes a standard of conduct towards fellow-employees, as well as superiors, customers, partners, and local communities when doing business and also when involved in business-related activities.

This Code is disseminated and popularised through the activities of the PR section of Comarch S.A. and by the Quality and Health & Safety Department.

II. Mission of the Comarch Group

Responsibility for the Success of Our Customers

Comarch is a global supplier of IT business solutions, which comprehensively support customer relationships and optimise operational activity and business processes. The Company's in-depth knowledge of the industry is its main advantage, which we transfer to our customers in the form of integrated information technology system. Ever since its establishment Comarch has placed great emphasis on the delivery of applications and professional services of the highest quality in such a way as to ensure that they can be optimally applied in the Customers' day to day activities. In this respect, Comarch has attained a strong position as a supplier of complete information technology solutions. The goal of the Comarch Group is to deliver innovative information technology solutions to all key sectors of the economy. There are over 6,000 experienced professionals and consultants working for our customers all over the world. Based on state-of-the-art technologies, knowledge about market trends, and sense of responsibility, thus far we have successfully completed thousands of complex projects in over 100 countries on

6 continents. Several hundred thousand customers in Poland and abroad use Comarch software. We are proud of the fact that many of our international customers and analysts consider Comarch to be an excellent example of a thriving European IT company from Europe that has succeeded in conquering global markets. The Company's product development strategy is supported by capital expenditure for research and development the value of which each year amounts to about a dozen percent of the revenues from sales. Focusing its efforts on spreading the knowledge, Comarch organises research and development programmes based on collaboration with consultants, analysts, and customers. An idea behind those programmes is to disseminate the knowledge and verify our vision of developing new technologies, while taking into consideration market trends. Comarch's strategy is based on using the diversified experience and knowledge of its employees to deliver a full range of information technology services – from consulting through implementations of individual solutions, to outsourcing.

III. Values that the Comarch Group Upholds

Both in internal, as well as external relations with its stakeholders, Comarch upholds universal values by fostering honesty, diligence and conscientiousness in performing the entrusted tasks, quality and innovation as individual goals set by the employees themselves, open

cooperation for common good, building and maintaining trust among associates and business partners, and also respect, understanding and assistance, regardless of a position held or diversity of opinions.

IV. Maintenance of the Highest Standards of Work

The Comarch Group respects and complies with international standards regarding human rights and also international labour standards perceiving them as fundamental and universal. It respects and implements the provisions of labour law and occupational health and safety regulations, and also ensures that employees are always treated in accordance with the applicable requirements.

Recognizing the employees' right of free association Comarch engages in a dialog with an elected council of employee representatives.

It complies with the prohibition of discrimination based on: race, social status, ethnicity, religion, impairment, disability, sex, sexual orientation, political affiliation or membership, age, or marital status.

It guarantees freedom of opinion, conscience and religion and freedom of belief and expression. The Comarch Group

promotes teamwork that is free from any prejudice and consciously draws on strength and values derived from the diversity of its employees. In return, the Group makes every effort to ensure that its employees receive fair and regularly paid remuneration, are offered development possibilities, interesting and ambitious challenges and very good conditions of work.

The Comarch Group protects its employees' copyright and, with regard to international standards, respects their intellectual property as a personal asset that should be free from any abuse.

The Group complies with the prohibition of child labor by persons below 16 years of age, forced labor, corporal punishment, mental and physical coercion and insult, and also the prohibition of sexual harassment, and it recognizes the place of work as being free from such practices.

V. Lack of Tolerance for Corruption, Fair Competition

The Comarch Group observes the rules of fair competition, and prevents bribery, illegal payments, and corruption.

The Comarch Capital Group has implemented an Anti-Corruption Policy establishing rules and standards of conduct to prevent and respond to actions that may be considered corrupt.

It is a duty of the employees of the Comarch Group to avoid any activity leading to a conflict of interests,

namely offering and receiving gifts as part of business and commercial activities. It is not forbidden to give or propose any bribes or illegal benefits to public officials, or representatives of political parties in order to conclude or maintain transactions. Comarch employees may not derive any benefits or assist in gaining benefits under circumstances that may arise as a result of using the corporate information or their position in the Group.

VI. Partnership in Business

Customer Relationships

The fundamental principles of the Comarch Group include: responsibility for customers' success, as well as respect and openness to their needs. Comarch provides its customers with innovative IT products of the highest quality, which is achieved thanks to the use of high

skills, experience and competences of the employees, cooperation with leading research and development centres both in Poland and abroad. Comarch endeavors that the provided IT solutions comply with top standards and customers' expectations.

Public sector customer contacts

Contacts with public sector customers (central and local government, municipal and communal companies, State Treasury companies, public health care centres) are governed by the provisions of the Act on Public Procurement Law of 11 September 2019 (Journal of Laws of 2019, item

2019, as amended). Those provisions govern the way of communicating with an awarding entity during tender procedures, the scope of activities that may be pursued by parties to tender procedures, and also regulate available legal remedies.

Security in International Business

In order to ensure control and security of trading in products, technologies, and services of strategic importance for national security, the Comarch Group

has implemented the Internal Control System, which guarantees that international and national legal standards and requirements are applied.

VII. Integrated Management System

The Comarch Group particularly stresses the quality of the products it offers and the services it provides. Quality-raising initiatives are therefore undertaken to ensure that the ever-increasing and more specific expectations of customers operating on both the Polish and international market may be satisfied.

The Integrated Management System ensures the correct and system-managed execution of all business processes that affect the quality of products and services. Effective operation of the system guarantees that all processes are monitored, supervised, improved, and adjusted to ever changing market conditions and technologies, and

customer requirements. The high quality of products and services is supported by continued care about the environment and safety of the employees and suppliers.

Compliance with the rules of the systems implemented at Comarch contributes to an increase of trust between the Company and its customers and suppliers. In this way Comarch's corporate image is reinforced in the eyes of all parties interested in the outcome of the Company's operations within such areas as the quality of products and services, the environmental impact, energy management, occupational safety and health, and also information and data security, and control of trading in dual-use goods.

VIII. Corporate Governance – Observing the Principles

Following the Best Practice of GPW Listed Companies, as a listed company Comarch operates pursuant to the rule of "comply or explain", the mechanism of which requires a company to provide the market with an unambiguous explanation of default on a good practice.

All the principles included in the Best Practice of GPW Listed Companies 2021 are subject to annual reports on compliance with the corporate governance rules that are drafted by the Company. The Management

Board of Comarch S.A. has published a report on the application of the rules by the Company that are derived from a new set of the corporate governance rules that have been posted on the Company's website. According to the published report, the Company does not apply the principle: 2.1. and 2.2.

Provisions of the set of the corporate governance rules that the issuer has not observed and explanation of the reasons thereof.

IX. Ecological Awareness

The Comarch Group complies with the legal provisions governing the environmental protection. Comarch knowingly limits the impact of its operations on the natural environment, minimising the consumption of natural resources and the production of waste as a result

of its ongoing operations. Furthermore, the Company also promotes an ecological lifestyle among its employees by running campaigns that encourage active participation in the environmental protection.

X. Socially responsible business

Ever since its establishment, the Comarch Group has been deeply involved in social activities, propagating the idea of developing a broad social platform to promote sports and most advanced IT technologies.

As concerns its activities of promoting and supporting sports, the principal object of the Comarch Group's social

commitment is MKS Cracovia SSA, which is the oldest sports club in Kraków that participates in professional leagues and competitions in several sports disciplines the most important of which are soccer and ice hockey. The Comarch Group is also broadly engaged in promoting sports among young people.

The Comarch Group provides its employees with permanent and free access to the Recreation Center located in one of the corporate buildings, thus encouraging them and their families to an active lifestyle.

Another idea widely promoted by the Comarch Group is the popularisation of knowledge concerning the most recent IT technologies. Every year a group of approximately 300 students of IT faculties participate in a three-month summer internship program at Comarch which enables young people

from all over the world to become familiar with cutting-edge IT solutions for business. The Comarch Group also supports Polish science by taking part in and co-financing scientific conferences.

The third component of the Comarch Group's corporate responsibility is sponsoring of cultural events. In that respect, support provided by the Group includes, but is not limited to festivals, concerts, or other socially significant events.

XI. Implementation and Enforcement of the Code

Compliance with the principles set out in the Code of Ethics is the responsibility of every employee.

All ambiguities and issues related to the interpretation of the Code of Ethics shall be submitted to the Ethics Ombudsman appointed by the Management Board. The Comarch employees are encouraged to report any remarks or modification regarding the content of the Code of Ethics. The Ethics Ombudsman is responsible for:

- supporting employees in compliance with the Code of Ethics,
- promoting the Code within the Company,
- updating the Code,
- taking appropriate measures in current issues that the employees may have as regards ethics of business activities pursued by them.

Comarch Group employees have the right to expect assistance and support from the Ethics Officer for queries raised by e-mail to: etyka@comarch.pl

The following critical risks have been identified under the Comarch Group Code of Ethics:

- the risk of breaches of ethics, corporate responsibility, respect for human rights and environmental protection,
- the risk of discrimination in all its forms,
- risks related to non-compliance with rules on fair competition, prevention of bribery, illegal payments and corruption,
- risks related to the occurrence of non-compliance with legal requirements, international human rights and labour standards, internal procedures as regards ethics.

The Comarch Group minimises the risks related to non-compliance with the principles of the Code of Ethics by complying with international standards in the area of human rights protection, creating a safe

and ergonomic working environment and caring for the natural environment. Employees have the right to expect the Ethics Officer to assist and support them with their queries at a dedicated email address. According to the register kept, there were no reports of ethical violations in 2021. All applications are reviewed by an independent committee and classified as either accepted or rejected. If a notification is acknowledged, appropriate action is taken to resolve them.

In Q1 2022, an additional breach reporting channel in the form of an app was implemented, enabling anonymous reporting along with the possibility of anonymous two-way communication with the person reporting the breach. In parallel, appropriate procedures have been implemented to regulate the rules on reporting, investigation and protection of whistleblowers.

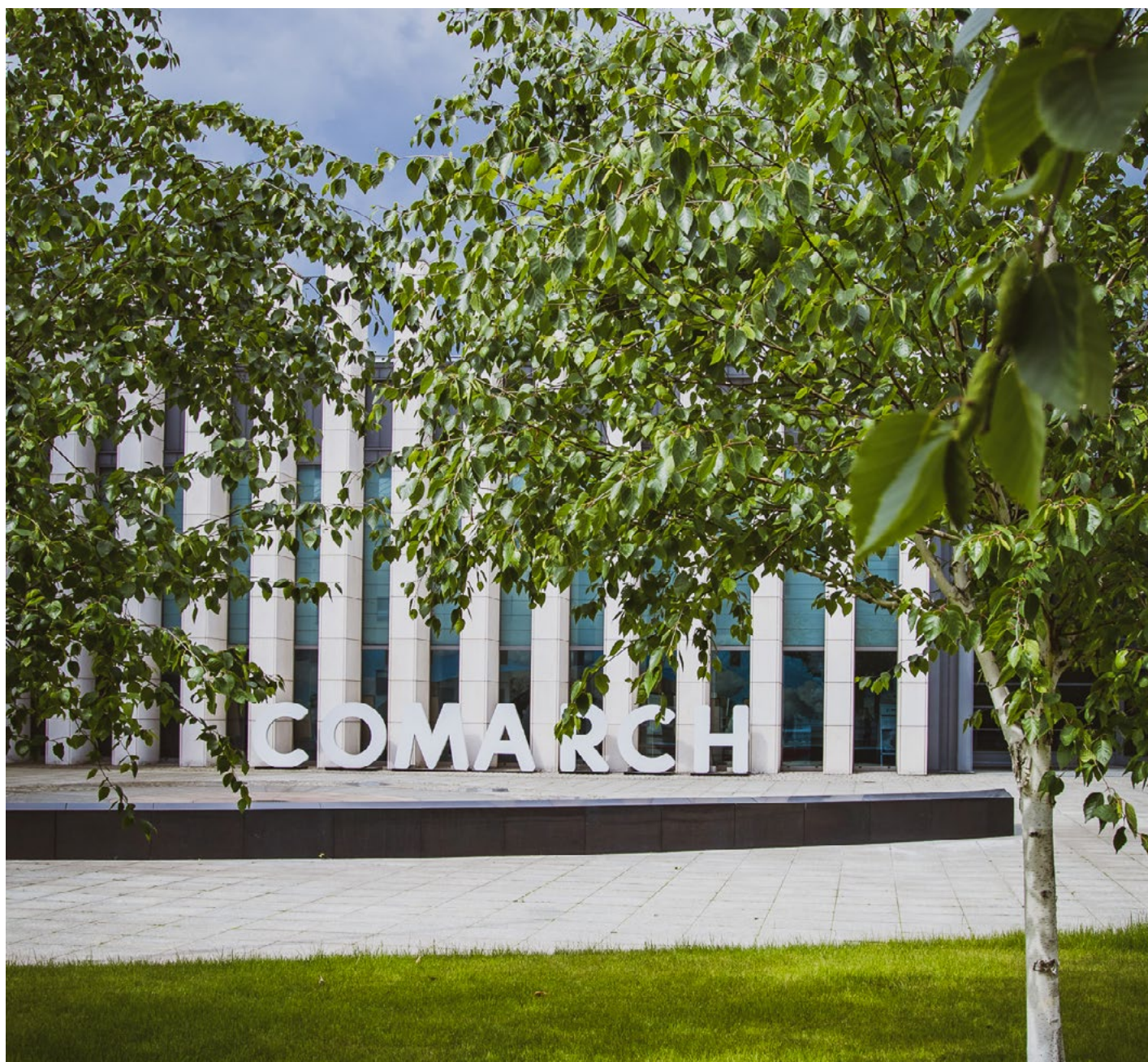
The verification of ethical compliance in the Comarch Group is continuous. Employees are periodically trained and can use various paths to report irregularities related to non-compliance with the Comarch Group Code of Ethics. Other stakeholders, such as customers, often take the opportunity to verify ethical issues through meetings, second party audits and by collecting information through surveys. Compliance with the principles adopted by the organisation, including the Code of Ethics, is also one of the elements of the periodic evaluation of employees.

Comarch does not perform stationary ethical audits of suppliers, however, as part of its Supplier Sustainability Policy, Comarch supports and encourages suppliers to be ethical in their actions and to comply with the ethical standards implemented in the Comarch Group. In a survey of suppliers conducted in 2021, the question in the survey: Does your company have an implemented Code of Ethics? "YES" was answered by all companies that returned the completed questionnaires. Suppliers who answered yes to this question in 2020 accounted for 69% of respondents.

Environmental and Other Factors

The Comarch Group complies with local legislation on the environmental protection. Comarch knowingly limits the impact of its operations on the natural environment, minimising the consumption of natural resources and the production of waste as a result of its ongoing operations. Furthermore, the Company also promotes an ecological lifestyle among its employees by running campaigns that encourage active participation in the environmental protection. In May 2014, Comarch signed the “Declaration of Polish Business for Sustainable Development”, thus providing assurance that it will take active steps towards the attainment of development goals set out in the 2050 Vision of Sustainable Development for Polish Business. The Declaration is based on ten principles, the

implementation of which will enable us to live with dignity in the future and to use the earth’s limited resources wisely. The environmental policy and procedures under the Integrated Management Systems put an obligation on Comarch S.A. to take active steps to reduce a negative environmental impact. Using the implemented Environmental Management System compliant with the requirements of ISO 14001 standard, Comarch identified environmental aspects that it monitors, supervises and moulds. 2021 Non-Financial Data Report was published on 29 April 2022. The document comprises non-financial information concerning Comarch S.A. and the Comarch Group. Full report content can be found on the website at: <https://www.comarch.pl/relacje-inwestorskie/raporty-okresowe/2021/>.



8

Material Events in 2021



1. Comarch Launched New Fintech Platform - Apfino

Comarch has launched an online platform for handling the financial processes of companies - Apfino. The service integrates with one place access to products of several external partners and at the beginning gives entrepreneurs the possibility to order services in the field of factoring and debt collection.

The service is currently addressed to companies from the SME sector, including small and medium companies, as well as sole traders and freelancers. In the first stage, the financial services will be offered directly in the ERP class systems of Comarch. The company has the largest share in the domestic market for business management software among Polish suppliers.

Comarch has created a dedicated company to support Apfino. Comarch Finance Connect will be responsible for the active promotion of the service, product development, cooperation with partners, and customer acquisition.

2. GREENHOUSE - cooperation with startups

In 2022, a new project called GREENHOUSE was launched. Created to promote entrepreneurship and the development of technological innovation, GREENHOUSE is a business initiative that aims to support startups financially and organizationally to help them turn ideas for revolutionary IT solutions into reality.

The main goal of GREENHOUSE is to create a business environment where ideas for innovative IT solutions can grow and flourish. Operating in Central and Eastern Europe, the initiative is aimed mainly at startups whose technologies (or ready-made IT products) may find application in such sectors as finance, insurance, retail, tourism, fuel and gas, and FMCG.

Startups, which will become a part of the GREENHOUSE initiative, apart from money will receive business, administrative, legal, and marketing support, as well as access to Comarch's international sales network (which will help in launching products on the market), office space in selected locations in Poland and to Comarch's IT infrastructure (cloud, hosting, data center services). Startups will also have the opportunity to contact Comarch's current clients.

The duration of a single investment will be between one and three years. During this period, the creators of a given startup will remain its co-owners.

3. "Partnership 2021" Conference

Every year Comarch organizes the "Partnership" conference, the participants of which are the company's business partners involved in the implementation of ERP family systems.

The "Partnership" program is a series of workshops and lectures, during which the participants have the opportunity to learn about the novelties in Comarch's offer, trends in the IT market, as well as the application of new technologies in IT systems. During the conference, the results of the "Partner of the Year" competition are announced for companies that have carried out the most interesting implementations of Comarch ERP solutions. The "Partner of the Year" competition was open to all Comarch ERP partner companies, whose representatives were present at the "Partnership 2021" conference.

The condition of participation was submitting at least one material presenting the case study of work for a client, whose implementation brought measurable benefits, helped to achieve business goals, and can be inspiring for other partners. Awards were granted in six categories for the best implementation of particular systems: Comarch ERP XL, Comarch ERP Optima, Comarch WMS, Comarch e-Store, and Comarch DMS. Winners of this year edition were partner companies: BMP Consulting, Pracownia Komputeryzacji Przedsiębiorstw BILANS Bogdan Pakosz, Firma Informatyczno-Reklamowa GTECH Grzegorz Gwóźdź, ERP Serwis and Teneso.

4. Comarch starts construction of data center in the United States

Comarch has begun construction of a data center in the United States. The nearly 3,000-square-meter facility will be built on a 1.2-hectare plot in Mesa, Arizona. Work began in June 2021. The data center is scheduled to be operational by the end of 2022.

The investment in its infrastructure is part of Comarch's strategy and is related to its plans to expand its business activities in the American market, where the company has been carrying out IT projects since 1999.

Currently, Comarch provides data center services for clients from North and South America in leased spaces in Chicago and Columbus as well as in Montreal and Toronto. Once the US facility is operational, all of these servers will be moved to Mesa. Comarch already has its server rooms in Poland (Kraków and Warsaw) and France and Germany.

The data center in Mesa will be used to host infrastructure and applications, support and maintenance, IT projects, business development, consulting services, and delivery of IT systems.



Comarch Data Center, Mesa (Arizona), USA -visualization



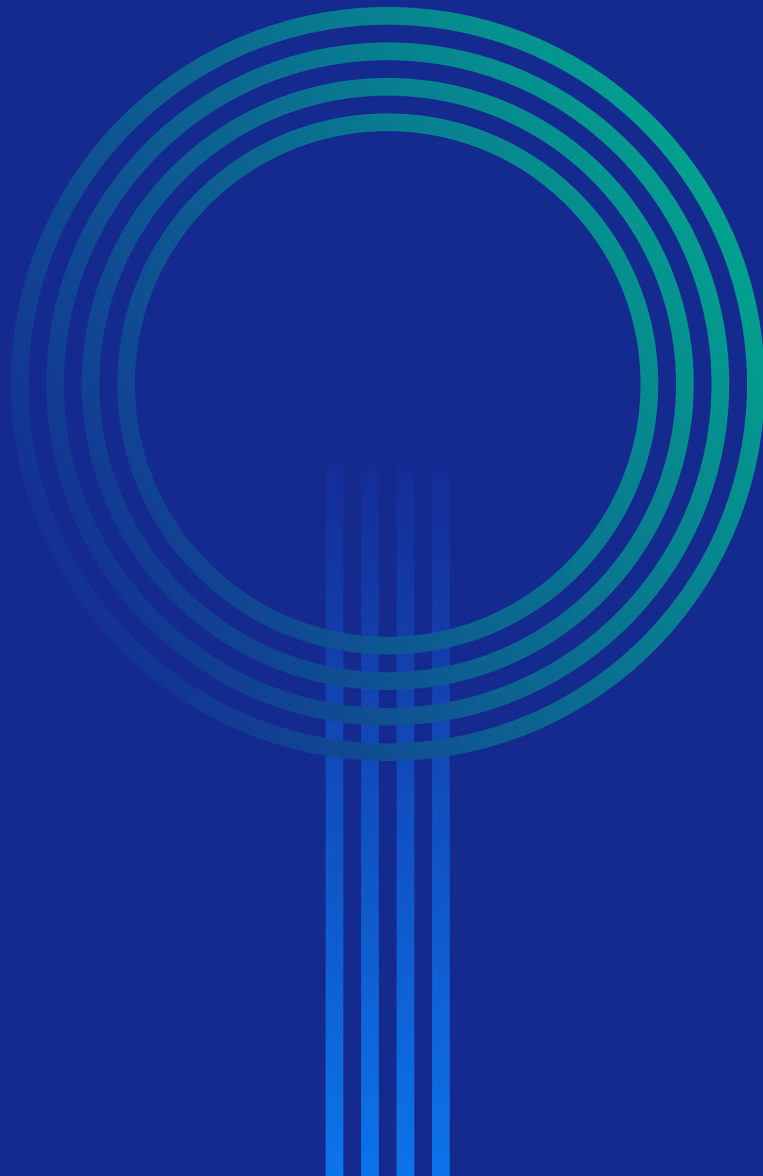
5. More than 300 students began their IT adventure during Comarch's summer internship

Comarch has been organizing IT summer internships for nearly 20 years. The motto of this year's edition was *Universum Technologii* and the candidates could choose from six IT profiles: programming, telecommunication, system engineer, embedded, AI/ML, Cyber Security, and UX/UI internship. Almost 5,000 people sent their applications, of which about 300 started their adventure in the IT industry. The summer IT internships at Comarch are the largest project of this kind in Europe. The current job market requires gathering experience from the first years of studies - this is one of the reasons why the internship program at Comarch is so popular. The interns worked on real projects, thanks to which they learned how to implement practical solutions using modern technologies. Practice is combined with learning.

"I think that internship programs are a great opportunity to gain valuable experience at the very beginning of your career path. The biggest plus is that here I came into contact with real problems concerning the project that is being put into use. I changed my place for the internship program at Comarch and if I had it to do over again I would do the same - because it's worth it", says Mateusz, this year's intern.

9

Corporate Social Responsibility



Corporate Social Responsibility (CSR)

Since the beginning of its activity, Comarch has been widely involved in social activities, promoting the idea of creating a broad social platform on the grounds of which sport and the latest IT technologies are promoted. Also important are activities promoting a healthy lifestyle and environmental protection, helping animals, as well as engaging in culture and supporting local community initiatives.

CSR foundations at Comarch

The CRS foundations at Comarch constitute the basis in the area of corporate social responsibility there is a Code of Ethics, approved and maintained within the company. A detailed CSR report in the Comarch Group is documented every year and presented in the Corporate Social Responsibility Report of the Comarch Group, which is posted on the website: <http://www.comarch.pl/o-firmie/zrownowazony-biznes/csr/>.

Community service activities

Comarch plays with Last Night of the Proms

For another year in a row, Comarch sponsored the Kraków edition of the event Last Night of the Proms, combining the highest artistic level with the spontaneous behaviour of the audience, who chorally sing songs from the last pieces of the programme. The jubilee concert took place in the

Kraków Opera House and the soloists were accompanied by the Beethoven Academy Orchestra. The programme included compositions by Szymanowski, Adams, Puccini and Wood. The concert was organised for the 26th time.



They shared what is most precious – a blood donation event

Responding to the needs of the regional blood donation centre, another blood donation event was organized on the company's campus in Kraków, in which employees took part, donating a total of 18,900 ml of blood. The campaign was organised in cooperation with the iMed24 Medical Center and the Regional Center for Blood Donation and Haemotherapy in Kraków. The company plans to continue the campaign in the future.

For pets

Organizations that help homeless animals also need help. In 2021, Comarch organised in-kind collections for foundations or associations in more than a dozen Polish cities. Thanks to the commitment of the employees, it was possible to support, among others, the Shelter for Homeless Animals in Wrocław, Katowice, Gliwice, the La Fauna Foundation, the Ex Lege Foundation, the Municipal Shelter for Homeless Animals in Bielsko-Biała, the Promyk Shelter in Gdańsk, and the Łódź Animal Care Association.

Christmas helping

Just like in previous years, in 2021, employees from Comarch's Polish companies in branches across Poland joined in organising Christmas collections of goods for people in need. More than a dozen organizations and institutions have received support, including: the Care and Educational Institution in Kęty, the St. Lazarus Hospice,



the "Parkowa" Center of Care and Educational Institutions, the "Zakątek" Orphanage, the Little Prince Lublin Hospice for Children, the Youth House in Poznań, the Family Orphanage No. 3 and 6 in Poznań or the Baudouin Home Foundation.



Popularization of science and education

Since the beginning of its activity, the Comarch Group has been actively cooperating with schools, universities and other educational institutions, e.g.: University of Mining and Metallurgy, Wrocław University of Technology, Silesian University of Technology, Jagiellonian University, Łódź University of Technology, Cracow University of Economics.

Last year, Comarch specialists also took part in various meetings with students in Poland and abroad or career days in Poland, France and Belgium. The company has also financially or substantially supported the organisation of Javeloper, technology meetups or UX Poland – one of the largest conferences for designers in Europe. There are also staff initiatives in the various departments that involve dedicating time to students on dedicated courses or branch meetings and with study circles. Thus, for several years now, specialists from the Wrocław branch have been providing substantive support to students of the Wrocław University of Technology in the implementation of tasks as part of the Team Project Conference.

In addition, Comarch specialists are eager to share their knowledge by creating many expert articles and authoritative podcasts.

In 2021, a strategic partnership was also established with the AGH University of Science and Technology in Kraków for the delivery of the postgraduate course “Financial Analytics and Controlling of Industrial Processes”. The company also organises internal knowledge-sharing activities such as meetups or cycles of texts on cyber security, created by specialists from the Internal Security Department.

Largest internship program in Europe

The 19th edition of the IT internship took place during the holiday season. It is the largest project of its kind in Europe. Out of more than 4,000 applicants, 300 people got into the program. The internship took place in more than 10 cities in Poland and students could choose from as many as 6 IT profiles: programming, system engineer, Embedded, telecommunications, AI/ML, Cyber Security and UX/UI internship. During the three month paid internship, the students had the opportunity not only to confront their own ideas with the knowledge they have acquired so far, but also to carry out real projects in cooperation with a real client and under the watchful eye of specialists. After its completion, as many as 87% of the trainees found employment in the company.

An IT internship for students from Lviv was also organized in 2021. Moreover, both in Poland and abroad (e.g. France and the United States) the company organizes business internships for students.

Comarch for Education

Comarch promotes knowledge about ERP systems among universities and vocational schools with economic profiles. This activity is carried out through lectures delivered by employees at universities on subjects related to IT, technology and economics, lending Comarch ERP systems in educational versions (more than 640 educational institutions equipped with educational versions of Comarch ERP), meetings and ERP seminars for lecturers and students, teachers and students of vocational schools, trainings on Comarch ERP systems for teaching staff, other educational programs and events for students of economic faculties. Special exercise books dedicated to vocational education are also distributed, preparing for state vocational exams for the profile of economic technician and accounting technician.



Sport and healthy lifestyle

Cycling to work

The Comarch Group encourages employees to cycle to work in the spring and summer months by providing bicycle infrastructure (e.g. racks, bike room, repair stations and changing rooms with showers) and occasional bicycle-related activities (Bike Breakfast, service).

Once again, the company has joined the Lesser Poland campaign "Bike to work, or – home, bike, work ... and so on" organised by the Department of Municipal Economy of the Municipal Office of Kraków. Comarch employees participated in the campaign, which aimed to promote the bicycle as an everyday means of transport, from June to the end, adding their green brick in the fight for a cleaner environment.

Regular bike commuting is possible thanks to the infrastructure provided by Comarch. In Polish branches of the company there are, among others: lockable bike rooms, racks, lockers with showers and self-service repair stations.

Cycling campaigns organised in the company are part of the environmental policy, which is embedded in the company's strategy and management model.



We run and we help

In 2021, employees from branches in Kraków, Silesia, Lublin, Wrocław, Warsaw, Poznań, Łódź and Gdańsk participated in the Poland Business Run 2.0 charity run. Although this was another edition carried out in a new formula, the fact that they fought together for a noble cause and for the support of people with physical disabilities, although separately, remained unchanged.

Other events on whose route Comarch teams have appeared include the Cracovia Royal Half Marathon, the Run Warsaw, and the 4Rest Run.





Charity sports competition

Three months of competition, three tasks to complete, two categories, one common goal – financial support for the chosen aid organization. Last year's Comarch ONrun/ONbike competition attracted several hundred employees, who collectively cycled and ran almost 70,000 km. Thanks to the commitment of the employees, the goal was achieved and financial support was provided to the Unicorn Association, which helps people with cancer and their loved ones.

Soccer competition

The company also encourages physical activity in disciplines other than running or cycling. A dozen or so teams consisting of Comarch employees from various branches took part in the September tournament Mundial Comarch. The all-day soccer competition took place at the Cracovia Training Centre in Rączna.

Get the balance right

Good employee energy is the foundation of a well-functioning organisation. That's why Comarch's wellbeing programme, Catch the Balance – body, emotions, healthy lifestyle, was launched specially in 2021. The following were realised in webinars with mental health and diet experts, exercises with physiotherapists, articles on healthy diet, work ergonomics or time planning.

Prevention above all

In 2021, Comarch Healthcare became a partner of the Onco-responsible campaign initiated by the NEO Hospital Group. The aim of the action was to draw attention to the need for prevention and to show the possibilities of diagnostics and modern treatment of gynaecological tumours in women. The campaign included free screenings for women, live meetings with doctors and psycho-oncologists, who shared their experiences and answered questions such as: how to take care of your health, how to react when an oncological disease appears, where to look for help, what is the role of personalized care, and how new technologies affect recovery. During the meetings, patients who have themselves developed cancer also shared their perspective. Comarch employees were also invited to participate in the webinars.

In addition, the company was involved in Gazeta Wyborcza's educational campaign "Grab your breast", which concerned breast cancer prevention (webinars with specialists, educational materials in the press and on the Internet, as well as an outdoor exhibition in Łódź). Moreover, as part of the action, women working at the Łódź branch of the company, as well as mothers and partners of the employees, could take advantage of free tests and were included in the genetic program "Early detection of malignant tumours in families with a high hereditary risk of breast and ovarian cancer".

Employee safety

Workshop on defensive driving with elements of eco-driving

In 2021, Comarch, together with its programme partner PZU (the entity financing the workshops), organised three training sessions on defensive driving with elements of eco-driving and two training sessions on improving passenger car driving techniques. Each training course was attended by a group of 12 employees. Training took place between July 2021 and October 2021.

As part of these activities, a total of 36 drivers were trained in defensive driving training and 24 drivers improved their passenger car driving techniques. The course in defensive driving with elements of eco-driving took place in city traffic in Kraków, while the classes in improving driving techniques in passenger cars were held on the Moto Park track in Kraków. Each participant received a certificate at the end of the training.

Defensive driving training with eco-driving elements is a program specially designed for fleet car users. By using participants' cars, reflexes and daily habits can be better observed and the right path can be identified to improve driving quality and safety. The course involves the use of a device to record several driving parameters and the assessment of the instructor in the car, on the basis of which the driver's driving style and characteristics affecting safety and low fuel consumption are determined. Each participant makes three runs: an observed audit with the recording of



driving parameters, a training run and an after-training audit with the recording of driving parameters – this is a drive commented on by the participant where the maneuvers performed are commented on and justified by him. Classes are conducted on a one-on-one basis, which means that there is only one participant in the car with the instructor. Classes are held using his company car which limits the transmission of potential threats. The one-on-one workshop lasts one and a half hours.

The program of classes "Improvement of driving techniques in a passenger car" includes:

- test of driving skills
- selecting and maintaining the correct trajectory when negotiating a series of bends
- ABS emergency braking and the principle of ABS operation
- emergency cornering braking using ABS
- the phenomenon of car understeer and oversteer – the operation of the various support systems (ABS, ESP, TC).



Evacuation exercises

Every two years, Comarch organizes evacuation drills in buildings owned by the company. At the same time, training is organised for rescuers appointed from among the employees at most locations in Poland. The last activities in this area were carried out in 2021. Around 3,000 employees took part in evacuation drills organized on the Comarch campus in Kraków. The exercises are conducted with the participation of rescue and fire-fighting units of the State Fire Service in Kraków. Action scenarios are prepared to mimic the real danger and to make the employees and outsiders staying in Comarch buildings aware of the risks resulting from a fire. We want our employees to know how to behave in order to leave the building safely, where the assembly points are and how to behave at these points. Employees are urged to be mindful of bystanders who may be in Comarch buildings during an evacuation and people who have mobility problems, either in their everyday lives or as a result of the situation. Each time we raise the level of difficulty and try to cover more and more areas and issues with the exercises.

Also involved in the drills are people designated to coordinate the evacuation, the so-called rescuers, whose main task is to assist in the safe evacuation of workers and to help the injured until the arrival of rescue units. In addition to participating in evacuation drills, rescuers take part in training in first aid and the use of hand-held firefighting equipment. A total of 145 rescuers are designated in all branches in Poland.

In facilities leased by Comarch, the company cooperates with building owners and managers so that they also fulfil their obligation to conduct evacuation drills with the participation of company employees.

Summaries are drawn up of the evacuation drills carried out; strengths and weaknesses are identified, and then corrective actions are planned and taken, the effectiveness of which, depending on the possibilities, is checked in-house or during subsequent evacuation drills.

On-line activity and integration

In cooperation with the Central Technology House, a modern educational center of which Comarch is a strategic partner, an online field game was organized for employees' families. Two versions of the game have been prepared – "Lame Pirate Joe" for younger children aged 8-10 years and "City of Robots" for older children aged 11-13 years.

Christmas creations

Also during the Christmas period, the employees' children were able to take advantage of Christmas workshops especially prepared for them, during which they made decorations and ornaments from materials collected in advance. The classes were held online in two age groups. In addition, the youngest were invited to take part in festive animations (movement and dance games, string art workshops and winter snacks, singing, fairy tales and quizzes).



CS tournament: Go

The competition integrated lovers of this legendary game. This time the event was carried out internally and teams from various Comarch offices took part.

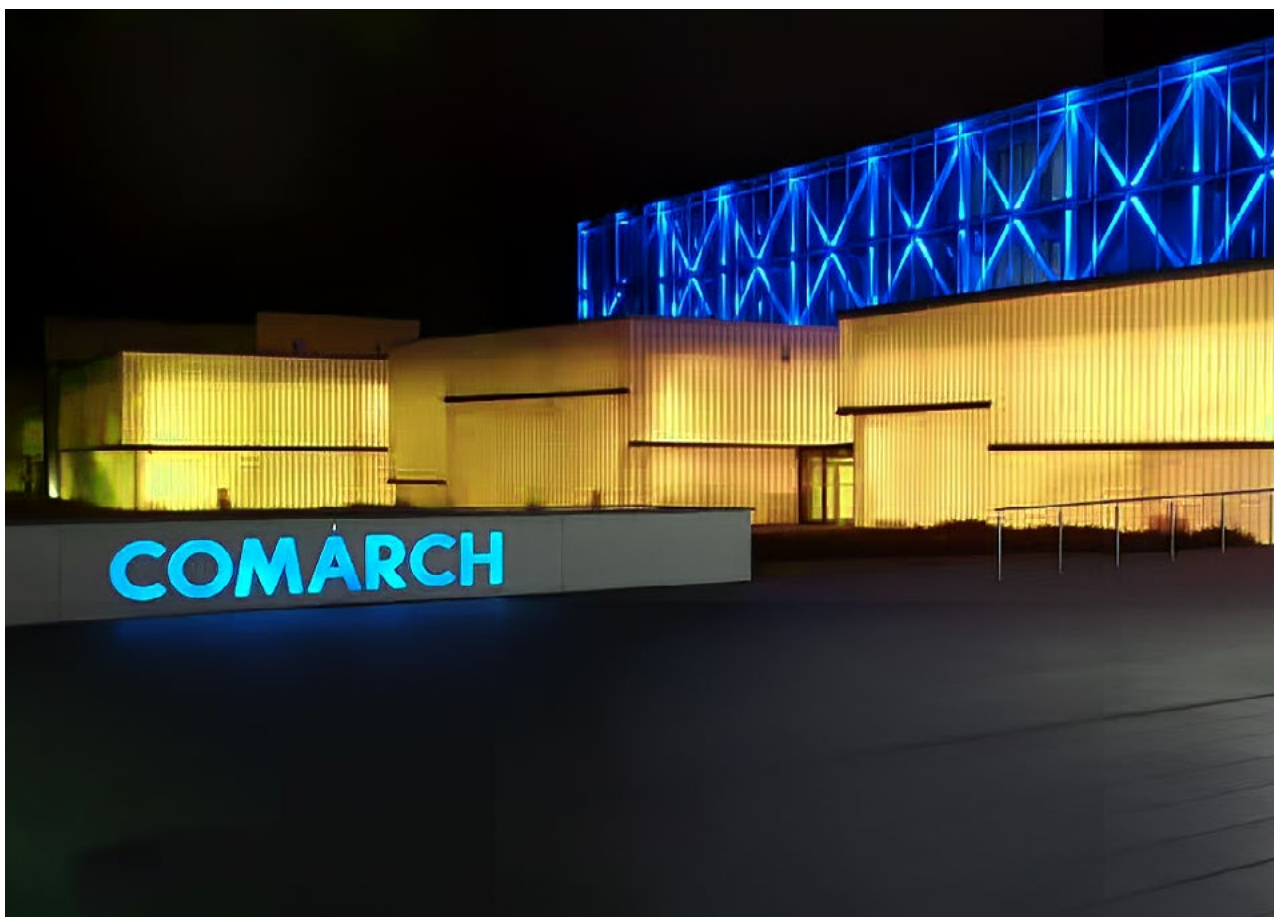
Comarch in solidarity with Ukraine

The Comarch Group fully stands in solidarity with the Ukrainian people on the very first day of unjustified Russian aggression. On 24 February 2022, the company launched an organized campaign to support the arrival in Poland and ensure the stay of its Ukrainian employees with their families. Dozens of people were helped, mainly women and children. The company has provided long-term support to the employees of the Ukrainian branches and has signed employment contracts with them in Poland.

At the same time, assistance is addressed to all Ukrainian citizens. The company provides support in all possible forms, e.g. by directly financing supplies of materials needed in Ukraine, using its car fleet to organise transport, by providing company housing, medical care at the iMed24 Medical Centre, Comarch's recreational infrastructure, as well as assistance in organising the stay in Poland for people coming from Ukraine. The company also organized and carried out the transport and deployment in Germany and Italy of 250 children with cancer from the destroyed children's oncology hospital in Kyiv.

In addition, Comarch has specified that it is able to offer long-term jobs to more than 100 people coming to Poland from Ukraine.

The Comarch Group has ceased operations in Russia due to the hostilities in Ukraine and the sanctions introduced. Every effort is made to maintain continuity in project implementation in Ukraine. The effects of the conflict do not have a significant negative impact on the company's economic situation, as customers from Ukraine and Russia account for approximately 1.5 per cent. of the Group's sales revenue.



Cracovia – CSR 2020

In 2021, Comarch continued its good CSR practice using the Cracovia brand. In later months, Cracovia's brand activities during the PKO BP Ekstraklasa top league soccer games and Polish Hockey League seasons could more widely promote corporate responsibility practices for their impact on society.

Great Orchestra of Christmas Charity

Supporting the Great Orchestra of Christmas Charity foundation is already a great tradition at Comarch. In 2021, a medal for winning the Polish Cup by Cracovia soccer players was donated for auction. The amount for which the winner auctioned the souvenir amounted to almost PLN 10,000.

Support for Charity Collections

Using the numerical potential of Cracovia's social media, Comarch has repeatedly appealed for people to join fund-raisers for children's treatment. One example was a fundraiser for the treatment of little Hania suffering from Smith-Lemli-Opitz syndrome.



Comarch actively joined a fundraising campaign to buy a prosthetic leg for a soccer player who represents Poland in AMP Futbol. The campaign was initiated by Cracovia's technical partner Puma and the ambassador of the brand, Kacper "Qesek" Misztal, a well-known YouTuber.

Extrahelp

Comarch, together with MKS Cracovia SSA, continues to actively participate in the Extrahelp campaign, which involves mutual promotion of charity collections and donating memorabilia for auction by all teams participating in Ekstraklasa top league games.

Cooperation to promote mental health among young people

Comarch actively joined the action under the slogan "WALK, WIN, LIVE!" During the 28th and 29th rounds of PKO BP Ekstraklasa top league games, Cracovia players ran onto the pitch wearing T-shirts promoting the initiative. The aim of the campaign was to change public attitudes towards consultation or advice from a psychologist or therapist.

Celebration of the Kraków Family

MKS Cracovia SSA and Comarch also joined in the 9th edition of the Kraków Family Festival. This is a cyclical event which has become a permanent feature in the calendar of cultural and family initiatives organized in Kraków. It promotes sports, cultural and recreational activities offered to Kraków families, as well as the city's offer to families, including support and assistance activities.

"The Stripes" Children's Day

After a year's break dictated by an epidemic situation, Cracovia returned to the tradition of organizing a "Stripes" Children's Day. Thanks to Comarch, the youngest fans could enjoy a tour of the stadium, a tombola, demonstration training sessions and the Cracovia Kids tournament.



Development Auctions

Comarch also tries to support organizations that promote physical culture or history. One example was the donation of a match shirt for the reactivation of a pre-war Polish football club, Lechia Lwów.

Anti-discrimination day for people with disabilities

Comarch, in cooperation with MKS Cracovia SSA, also remembered the Day of Combating Discrimination against Persons with Disabilities. The day was intended to be a reflection on the situation of people with disabilities in Poland, as well as an opportunity to express opposition to discrimination against people with disabilities in the workplace or in public offices.

Promotion of Civic Budget

Comarch, together with MKS Cracovia SSA, joined in the promotion of the project as part of the civic budget. The project envisaged the creation of a multimedia historical zone, connected to the Avenue of the Deserving and a soccer playground for children at the Cracovia stadium.

Extra Class Academy

Comarch, in cooperation with MKS Cracovia SSA and the Ekstraklasa Foundation, once again organised the Ekstra Class Academy tournament. The event is aimed at young people aged 11-12 years and aims to promote physical activity among young people.

Cracovia supports Fair-Play

An element of education in MKS Cracovia SSA is caring for the promotion of a sporting attitude among the youngest players. During one of the Cracovia KIDS trainings an endearing gesture towards a peer was made by seven-year-old Lidka, who helped her friend. Comarch and MKS Cracovia SSA decided to prepare a surprise for the girl in the form of a meeting with the players and small gifts.

During the children's and youth ice hockey tournaments on Kraków's ice rink, Comarch organized numerous lectures for children and parents, reminding them of the paramount role of fair-play rules, mutual respect and healthy lifestyle among young athletes.

Help the shelter in Rybna Street

Comarch, in cooperation with MKS Cracovia SSA, have joined in the collection of gifts and donations for the Kraków shelter in Rybna Street. They managed to collect nearly PLN 1,000, as well as the most necessary items for animals in need.

Charity tournament for Professor Janusz Filipiak President's Cup

At the beginning of October, a charity tournament for the Cup of the President Professor Janusz Filipiak was held. One element of the event was a raffle and auction of sports memorabilia. All proceeds went to the Małopolskie Hospice for Children in Kraków, supporting its daily operations.





Vaccination campaign in front of the stadium

Before the meeting with Jagiellonia Białystok Comarch together with MKS Cracovia SSA organised the possibility of vaccination against SARS-CoV-2 virus. A ticket to the match for a symbolic 1 PLN was waiting for each person vaccinated on Saturday.

Prevention against Covid-19

During the Continental Cup tournament, Comarch took care of COVID-19 prevention and education. At the ice rink, volunteers informed fans about the need for measures to prevent the spread of the virus, and educated the public about how to protect their health and prevent a pandemic.

World First Aid Day – Information Campaign

Before the match with Górnik Zabrze, Comarch together with MKS Cracovia SSA conducted an information campaign in connection with World First Aid Day. First aid demonstrations were given in the family sector and, in addition, special cards in business card format with a list of the basic, most important resuscitation steps were distributed before the game.

#Safe Home Campaign

Before the game with Raków Częstochowa, Comarch together with MKS Cracovia SSA conducted an information campaign related to safety. During the meeting, animators taught the little ones about fire safety, safety on the road and at home, thus investing in the future and the education of children.

Support for voluntary blood donations and bone marrow donors

During the Continental Cup at the ice rink at 7 Siedlickiego Street in Kraków, Comarch supported the "Wampiriada" initiative, which promotes voluntary blood donation and encourages people to sign up to a bone marrow donor database, thus raising public awareness of the need to save lives by donating blood and bone marrow.

Noble Package

During the holiday season, Comarch traditionally joined the Noble package (Szlachetna Paczka) campaign, which consists in helping people in need. Cracovia's athletes were responsible for this task. This year we helped two families: a single Mr Henryk and a retired lady Maria.

"Movember" prevention campaign

comarch once again supported the "Movember" campaign reminding about men's health problems and encouraging regular check-ups and prevention of testicular and prostate cancer. During the games, hockey players and employees of MKS Cracovia SSA promoted the aforementioned idea and encouraged fans to adopt a healthy and hygienic lifestyle.





10

Prizes and Rankings

Awards for Comarch

The editors of the economic portal WNP.PL and the magazine Nowy Przemysł awarded the **"Investor without borders"** prizes. Comarch received a distinction in the "Polish investor abroad" category. Other laureates were Grupa Amica, InPost, and Sii. In the second category - "Foreign investors in Poland" - awards were given to Amazon, Fresenius Kabi Poland, IKEA, SK hi-tech battery materials Poland, and Toyota Motor Manufacturing Poland.

The "Investor without borders" competition is closely connected with the European Economic Congress. Its idea is timeless - the idea is to distinguish in one competition between foreign investors in Poland and Polish companies active in the European and global market. At the same time, the competition promotes model relations between the investor, the market, and the administration which are based on trust and responsibility - and which result in notable benefits. The awards are granted by the editors of the economic portal WNP.PL and the magazine Nowy Przemysł, and candidates for the distinction are nominated by business circles, self-government institutions, agencies, and government institutions involved in attracting investors and supporting Polish economic expansion abroad.

Although the year 2021 brought with it many novelties, one thing remained unchanged - the editors of Computerworld magazine, for another year in a row, prepared the **"Computerworld TOP200"** report, in which you can find the results of a comprehensive survey of the Polish ICT market. This publication presents trends in the ICT industry



"Investor without borders" award gala

and rankings of companies in numerous categories. In this year's edition, Comarch took first place in several categories: the largest provider of services in the cloud model, the largest provider of IT solutions and services for the telecommunications sector, the largest provider of RPA systems and business process automation, and the IT company with the largest expenditure on R&D. Comarch wins high positions in various categories every year. The ranking also includes two other companies which are part of the Capital Group - Comarch Polska SA and Comarch Healthcare (among others, first place in the category of IT companies with the highest R&D share concerning IT revenues in 2020).

It was the tenth time when **"Polityka's" CSR Lists** were handed out. Polityka weekly, together with the Responsible Business Forum and Deloitte, surveyed the largest companies in Poland on corporate social responsibility and sustainable development. Comarch was awarded the White List. The review of corporate social responsibility is prepared based on a survey sent out to companies. As every year, the areas analyzed included: corporate governance, human rights, behavior towards employees, environmental protection, customer care, business honesty, and social involvement.

The **"Computerworld TOP200"** report is an important publication that has been providing an important summary of the Polish ICT industry for nearly 30 years. The report is an important reference for IT managers, IT specialists,



Polityka's CSR White List

and analysts, as well as for clients who browse the report to broaden their knowledge about IT suppliers' offers.

Comarch took first place in as many as four categories of this year's edition of **"ITwiz Best 100"**. In the report, Comarch was classified as the company with the best sales results in the following categories: sales to the retail sector, telecommunications, CRM software, and cloud computing services. Additionally, the company was ranked at the top in several other categories, including companies with the largest sales to the SME sector (2nd place), ERP systems sales (2nd place), mobile applications sales (2nd place), data center services sales (2nd place) and largest exporters of IT products and services (2nd place). Comarch "won bronze" among IT companies with the highest sales to the financial sector and sales of ECM-class systems, as well as among companies with Polish capital selling their products and services.

The "ITwiz Best100" report is a ranking of IT manufacturers and suppliers of IT solutions and services present in the Polish market, based on sales results. The publication is prepared by the ITwiz editorial team.

Comarch e-Urząd system won second place in the **"IT in Administration" Product of the Year plebiscite in the category: Software dedicated to Public Administration**. The competition was organized by the "IT in Administration" monthly. It aims to select IT solutions that most effectively improve the functioning of public entities. The competition consists of eight categories in which the readers and editors of the monthly vote for the best products. The evaluation criteria are functionality, innovation, and usefulness of solutions in the daily work of IT departments in the public administration sector.

The Asian Banker's Council of Advisors awarded the most unique and successful institutions in the banking sector in Thailand. The jury appreciated the project carried out by Comarch for TMB Thanachart Bank regarding the implementation of the Comarch Corporate Banking (CCB) system launched under the TTB Business ONE brand.



Best Digital Transformation in Thailand

The Comarch transaction system includes mobile and desktop applications supporting both corporate and SME customers. The system was implemented during the fusion of TMB and Thanachart Bank and currently serves business customers of the merged banks. Thanks to the ease of use, unique UX, high-security level, as well as automation of business processes, the new platform implementation was recognized as the **Best Digital Transformation in Thailand**.

Comarch has been selected as a runner-up in five different categories of this year's Pipeline Innovation Awards. The annual Pipeline Innovation Awards have provided the most credible recognition of technical innovation in the industry over the last decade. Each year, the Innovation Awards program receives hundreds of nominations which are distilled to a select number of semi-finalists, who compete across more than 10 categories of technical innovation.



"IT in Administration" Product of the Year award gala

Contestants submit extensive evaluation information to validate their innovation, which is objectively scored across over 20 different aspects of technical innovation. This information is provided to an esteemed judging panel consisting of key executives who leverage technology to advance the way we work, live, play, and communicate as a globally-connected society. The judges exclusively select the most innovative competitor in each category. This year, Comarch has been chosen as runner-up in five different categories: Innovation in Business Support Systems, Innovation in Operational Support System, Innovation in Artificial Intelligence (AI), Innovation in Assurance, and Innovation in Pandemic Response.

"It is wonderful to see that our work is being recognized by an organization such as Pipeline, given the strong competition we faced. Being chosen based on our work in the areas of OSS/BSS, AI and assurance are especially important to us, as these are the fields on which we place additional focus and in which we constantly evolve.", says Tymoteusz Wrona, the Head of Telecommunications, Presales, and Product Management at Comarch.

Comarch has won **the award of Top CEE Digital Services Provider to Japan** at the 2nd annual Japan–Central Europe Investment Summit & Awards. The Awards Gala aimed to distinguish the top Japanese and partner companies across key sectors – companies that bring expertise, capital, and technology to central Europe, including countries such as Germany, Hungary, Poland, the Czech Republic, Slovakia, Romania, and the Baltic States.

"We are glad to see Comarch being recognized by yet another organization with an established jury judging the contestants. We started our Japanese journey with a pinch of uncertainty, but recent developments and this award prove that we made the right decision to bring our products to Japan. Telecommunications, IoT, e-health, FinTech, and retail business are the areas we will further explore together with our Japanese clients and partners to bolster innovative and valuable solutions.", says Lukasz Zezulak, Japan Country Manager. "The fact that our Japanese operations are getting noticed is a great achievement, considering our accelerating development in the East Asian area".

Two Comarch systems were recommended by Gazeta Bankowa in the **"Hit of the Year 2021"** contest. "Hit of the Year", a long-standing contest, selects the most innovative IT solutions for companies and institutions. This year it was held in two categories: "Banking" and "Insurance



"Hit of the year" award gala. Foto: Gazeta Bankowa

and other financial institutions". The Chapter awarded recommendations to Comarch RPA for KYC and Comarch AI-based Product Ranking systems. The former is used to automate data acquisition from multiple sources to assess customer risk, while the latter helps investors and their advisors select the right investment product.

Comarch and its "AIOps Autonomous Service Assurance" project have been named the **2020 Catalyst Award Winner for Outstanding Contribution to TM Forum assets**. In 2020, Comarch took part in TM Forum's renowned collaborative proof-of-concept Catalyst program focused on co-creating innovative solutions to important industry challenges leveraging key TM Forum best practices and standards with its innovative AIOps autonomous service assurance championed by LGU+. Comarch's project took the use of AI in telecommunications assurance to a higher level by correlating potential network errors with predicted customer behavior and preventing dissatisfaction. It demonstrated a pioneering solution and concrete AI-based use cases covering vital assurance processes, including such areas as automated problem detection identification problem detection, Identification, and diagnosis of root causes and bad customer experience, and fault-fix automation

Winners were chosen by TM Forum's Collaboration Sub-Committee, whose job is to oversee the effective creation and adoption of pragmatic best practices and standards, delivering value to the membership by meeting industry needs.

At Hewlett Packard Enterprise Partner Summit, Comarch won first prize in the "Biggest Sales in the As-a-Service Model" category. The HPE Partner Summit is an event that focuses on the latest market trends and innovations in the field of IT, and an awards ceremony where HP's most active business partners get recognized for their contributions. The 2021 show's theme was "Future Redefined" to express interest in what we should expect from technology providers in the years ahead.

Comarch in reports of analytical companies

Comarch is recognized amongst Representative Vendors in CSP Operations Support System solutions by Gartner, the world's leading research and advisory company. Gartner's **"Market Guide for CSP Operations Support System Solutions"** encompasses market definition, provides key findings of the state of OSS strategy amongst both: CSPs, and OSSs product vendors, and defines recommendations for CSP CIOs, who are responsible for OSS strategy and its transformation.

"Including Comarch in the report, in our opinion, confirms our strong position as an innovation leader amongst other OSS vendors on the market" – says Dominik Pacewicz, Head of Product Management at Comarch. "We have been delivering real-time OSS, that's supporting 5G, edge computing, network slicing, AI/ML, and IoT for our clients with success for some time now, and this recognition in the report is just another proof of our expertise in that matter."

Comarch has been named in **the CeFPro global Fintech Leaders survey – in the cyber security and anti-fraud categories**.

The list and adjoining report are released annually by the international research organization, the Center for Financial Professionals (CeFPro). The Center for Financial Professionals' Fintech Leaders 2022 Report is one of the most rigorous programs that report on the status of the fintech industry (including investment priorities, key opportunities, main challenges, and benefits among other themes) and rank fintech industry leaders. The report's coverage includes evaluating top fintech companies, solution providers, and vendors. The results are based on gathered surveys from end-users, practitioners, and subject matter experts, which were over 2,000 respondents last year. The report generated by CeFPro comes from the group's market analysis and original research, which are backed by an advisory board that consists of 60 international industry professionals.

*'We are honored to be recognized as a Fintech Leader by 'CeFPro', said **Adrian Korczyński**, Cyber Security Business Unit Director, Comarch. 'It validates the focus and investment we're constantly making to fine-tune our solutions'.*

Comarch has been listed in the 2021 Gartner **"Market Guide for CSP Revenue Management and Monetization Solutions"**.

The "Market Guide for CSP Revenue Management and Monetization Solutions" report includes market definition, description, key findings, and recommendations. According to this report:

"CIOs at CSPs who are modernizing or transforming their BSS or revenue management can use this research to hone sourcing strategies targeting desired outcomes". "Gartner defines the revenue management and monetization solutions as commercial off-the-shelf software solutions that address communications service providers' back-end operations requirements of rating, charging, billing, payments, collections, partner settlement, monetization, and related activities."

Comarch has been listed among 14 Representative Vendors in the CSP RM&M solutions market.

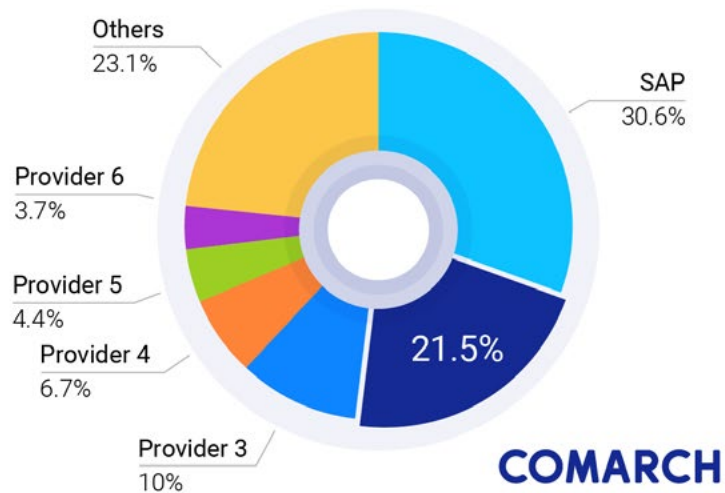
Comarch has been included in a Loyalty Solutions report by Forrester, one of the most prominent research companies in the world, **"The Forrester Wave™: Loyalty Solutions, Q2 2021"**. The report itself, entitled "The Forrester Wave™: Loyalty Solutions, Q2 2021," is a 28-criterion evaluation of the 14 most significant loyalty management technology providers, created to help marketing professionals choose the right loyalty platform for their business. The material also highlights some of the latest and upcoming market trends and innovations in customer loyalty. In the report, Forrester puts a spotlight on the top 14 vendors that deliver loyalty solutions. All companies differ in terms of their size, location, technological innovation, and market focus. Being a global provider of software-defined loyalty management products and services, Comarch has therefore been included among what Forrester considers the group of "providers that matter most." According to Forrester's report, Comarch scored among the top five in the 'loyalty marketing' and 'loyalty management' criteria. The report states that our platform offers "strong benefits management, promotion, and offer management capabilities..." Forrester also indicates that "client references praised Comarch's reporting, dashboards, analytics, and 'solid partnership'..."

Comarch's share in the market for IT solutions for enterprise management in Poland is growing. According to **the report "Poland Enterprise Application Software Market Analysis and 2020 Vendor Shares"**, prepared by

the analytical company IDC, it amounts to 21.5 per cent. Such a result gives Comarch the position of the largest Polish provider of ERP systems on the domestic market and the second place in the ranking of software houses, taking into account both Polish and foreign companies. In addition, Comarch is the only software house from the top three whose market share increased compared to the previous year, while the other two companies saw declines.

Comarch has been included in the recent “Now Tech: Loyalty Marketing, Q4 2020” report by Forrester, one of the world’s leading market research companies that share insight and advice on the current and potential impact of technology with its clients and the public. The report, as

its title suggests, provides an overview of a diverse set of vendors in the Loyalty Marketing space. In this publication, Forrester names 41 vendors that vary by size, location, technological capabilities, and market focus. Being a global provider of software-defined loyalty management products and services, Comarch has been placed among mid-size vendors (\$25 million to \$75 million in revenue) and in the hybrid loyalty provider functionality segment. The report can be seen as a summary of the existing and upcoming customer engagement strategies, discussing what today’s companies are (or should) be looking for in modern loyalty management solutions. Moreover, it reveals why one’s collaboration with a loyalty marketing technology provider is never limited to just loyalty programs. "



Source: IDC Report ‘Custom Report: Poland Enterprise Application Software Market Analysis and 2020 Vendor Shares’

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Comarch Offices
– Worldwide



Offices in Europe

Austria

www.comarch.at
Müllerstr. 1
6020 Innsbruck
Phone: +43 512 909 05-0

Mariahilfer Straße 123
A1060 Vienna
Phone: +43 1 91066-0
Fax +43 1 910 66 66

Belgium

www.comarch.be
Avenue de la Toison d'Or 67
1060 Brussels
Phone: +32 2 535 55 00
Fax +32 2 535 55 01

Finland

Vapaalantie 2 B 20
01650 Vantaa

France

www.comarch.fr
17 rue Paul Langevin
59260 Lezennes
Phone: +33 3 62 53 49 00
Fax +33 9 55 24 46 94

82 Allée Galilée
38330 Montbonnot Saint-Martin
Phone. +33 4 57 58 23 00

33, quai Arloing
69009 Lyon 9ème
Phone. +33 3 62 53 49 00

8 Place du Ponceau
95000 Cergy

Germany

www.comarch.de
Fasanenstraße 4
10623 Berlin
Phone: +49 30 76 79 67 0
Fax 49 30 76 79 67 1467

Anne-Conway-Straße 2
28359 Bremen
Phone: +49 421 201 40 0
Fax +49 421 201 40 140

Chemnitzer Str. 59 b
01187 Drezno
Phone: +49 351 3201 3200
Fax +49 351 438 97 10

Schiesstraße 44-76
40549 Düsseldorf
Phone: +49 211 415 55-300
Fax +49 211 415 55-399

Heidenkampsweg 82
20097 Hamburg
Phone: +49 40 235 03 300
Fax +49 40 235 03 400

Großer Kolonnenweg 21
30163 Hannover
Phone: +49 511 966 05 0
Fax +49 511 966 05 199

Riesstraße 16
80992 Monachium
Phone: +49 89 143 29-0
Fax +49 89 143 29-1114

Haferlandweg 8
48155 Münster
Phone: +49 25189930 0
Fax +49 251 899 30 10

ITALY
www.comarch.it
Via Luigi Galvani 24
20124 Mediolan

Italy

www.comarch.it
Via Luigi Galvani 24
20124 Mediolan
Phone: + 39 287 343 431

Vi Ludovisi 35,
00187 Rome

Luxemburg

Rue de Merl 63-65
L-2146 Luxembourg
Phone: +352 271 168 18,
+352 271 168 19

Russian Federation

Kazachiy Pereulok, 5/2, bld. 1, floor/
room 2/2
119017 Moscow
tel. +7 495 134 1429

Sweden

Setterwalls Adyokatbyrå
att. Tobias Od, Box 1050
101 39 Stockholm

Switzerland

Arbon Grabenstrasse 2/4
9320 Arbon
Phone: +41 71 447 90 3-0
Fax +41 71 447 90 3-1

Rigistrasse 3, 6300 Zug
tel. +41 71 447 90 3-0
faks +41 71 447 90 3-1

The Netherlands
Weena 505
3013 AL Rotterdam

Ukraine

Henerala Almazova 18/7
01133 Kyiv

Dzherelna, 28B
Lviv 79007

United Kingdom

www.comarch.co.uk
Terminal House,
52 Grosvenor Gardens,
London, England, SW1W 0AU

Offices worldwide

North America

Canada

New Brunswick, 44 Chipman Hill,
Suite 1000
Saint John, N.B.,
E2L 2A9, Canada,
P.O. Box 7289, Stn.

United States of America

5600 North River Rd, Suite 640
Rosemont, IL 60018

17 State Street,
Suite 550, New York
NY 10004

Mexico

Av. Viaducto Miguel Alemán 892 – 302
Colonia Nápoles, Alcaldía Benito
Juárez
C.P. 03810, Mexico

Central and South America

Argentina

Suipacha 1380, piso 2°
Ciudad Autonoma de Buenos Aires

Brazil

Avenida Roque Petroni Junior,
No. 1089, set 1011, 1013, 1015, 1017,
Vila Gertrudes, Jardim das Acacias,
04707-000, City and State of
São Paulo,
Phone: + 11 3995-0400

Chile

Calle Monseñor Sótero Sanz de
Villalba 161
oficina 1001 y 1002
Providencia
Región Metropolitana
Santiago de Chile
Phone: +56 22 247 7570

Colombia

Chico, Carrera 18, Nro 86 A-14
Bogota

Panama

Vía Ricardo J. Alfaro
P.H. The Century Tower, Oficina 721,
Piso 7
Panama City

Peru

Av. República de Panamá 3420
Of. 1701
Lima

Asia

China

Room 3610-2, Building 11,
No.3855 Shangnan Road
Pudong New Area
Szanghaj

Japan

Level 28, Shinagawa Intercity Tower A
2-15-1 Konan, Minato-ku
Tokyo 108-6028

Malaysia

Level 15-2,
Bangunan Faber Imperial Court
Jalan Sultan Ismail
50250 Kuala Lumpur

South Korea

603, 6F, Magok techno-tower Bldg. 63
Magokjungang 6-ro
Gangseo-gu
Seoul

Thailand

No.3, Promphan 3 Building, Unit
No.1709-1710, 3 Ladprao Soi 3,
Ladprao Rd.
Chom Phon
Chatuchak Bangkok 10900

Middle East

Saudi Arabia

Riyadh, Olaya District
Olaya Main Road
P.O. Box 84421
Postal Code 11671

United Arab Emirates

Dubai Internet City, Building no 17,
Office 158
PO. Box 500824 Dubai

Australia

Australia

Level 16, Tower 2 Darling Park
201 Sussex Street, Sydney NSW 2000
GPO Box 1615, Sydney NSW 2001

New Zealand

Baker Tilly Staples Rodway
Auckland Limited, Level 9
45 Queen Street
Auckland, 1010, NZ

Offices in Poland

Kraków – Headquarters

COMARCH SA

al. Jana Pawła II 39 a 31–864 Kraków

Phone: +48 12 646 1000

Fax +48 12 646 1100

e-mail: info@comarch.pl

SSE – Special Economic Zone



Comarch headquarters, Kraków

Comarch Offices in Poland

Białystok

ul. Elizy Orzeszkowej 32, 3 floor
15-084 Białystok
Phone: +48 85 871 6600

Bielsko-Biała

ul. Michałowicza 12
43-300 Bielsko Biała
Phone: +48 33 815 07 34
Fax: +48 33 815 07 35

Częstochowa

ul. gen. Jana Henryka
Dąbrowskiego 17
42-202 Częstochowa

Gdańsk

al. Grunwaldzka 103A
80-244 Gdańsk
Phone: +48 58 326 45 50
Fax: +48 58 326 45 63

Gliwice

ul. Jasna 14
44-100 Gliwice
+48 32 508 67 09

Katowice

ul. Baildona 64A and 66
40-115 Katowice
Phone: +48 32 603 39 00
Fax: +48 32 603 39 39

Kielce

Centrum Biznesu Exbud
Al. Solidarności 34
25-323 Kielce

Media, Public Relations, Social Media

Mobile: +48 691 464 715
Mobile: +48 694 464 818
e-mail: media@comarch.pl

Marketing

e-mail: marketing@comarch.pl
Phone: +48 12 646 1000

Lublin

Centrum Park
ul. Stanisława Leszczyńskiego 60
20-068 Lublin
Phone: +48 81 538 34 00
Fax: +48 81 528 94 32

Łódź

ul. Jaracza 76
90-251 Łódź
Phone: +48 42 288 3000
Fax: +48 42 678 4100

Nowy Sącz

ul. Długosza 69, lokal nr 4
33-300 Nowy Sącz

Opole

Science and Technology Park in Opole
Technologiczna Street no. 2B
45-839 Opole

Płock

Ul. Zbożowa 7
09-410 Płock

Poznań

Biurowiec Pixel 4
ul. Grunwaldzka 186
60-166 Poznań
Phone: +48 61 828 63 00
Fax: +48 61 828 63 01

Rzeszów

ul. Dąbrowskiego 20
35-036 Rzeszów
Phone: +48 17 785 59 06

Tarnów

ul. Krakowska 131
33-100 Tarnów

Toruń

ul. Włocławska 167
87-100 Toruń

Warsaw

Eurocentrum Office Complex
Al. Jerozolimskie 134
02-305 Warsaw
Phone: +48 22 160 57 00

ul. Puławska 525
02-844 Warsaw
Phone: +48 22 567 26 00
Fax: +48 22 644 41 66

ul. Szamocka 8
01-798 Warsaw

Comarch Training Center
ul. Leśna 2
02-840 Warsaw

Włocławek

ul. Przedmiejska 5
87-800 Włocławek

Wrocław

ul. Długosza 2-6
51-162 Wrocław
building 5
Phone: +48 71 335 6000
Fax: +48 71 335 6001

Zielona Góra

ul. Chemiczna 5 lokal 104
65-713 Zielona Góra

CSR

e-mail: csr@comarch.pl

Investor Relations

Phone: +48 12 687 7926
Mobile: +48 608 646 251
e-mail: ir@comarch.pl



Editor-in-chief: Marek Wiśniewski
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Photos: Comarch

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Comarch SA

Al. Jana Pawła II 39 a, 31-864 Kraków, Poland
Phone: +48 12 646 1000 Fax +48 12 646 1100
e-mail: info@comarch.com
www.comarch.com

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