



MANAGEMENT BOARD'S REPORT  
OF XTPL S.A. AND XTPL GROUP  
FOR THE FIRST HALF OF 2023

Wroclaw, September 20, 2023

## LETTER FROM THE MANAGEMENT BOARD

Ladies and Gentlemen, Dear Shareholders and Investors,

We are pleased to share with you our report summarizing the activities of XTPL S.A. during the first six months of 2023. We are satisfied with the strong progress XTPL is making, which has been also recognized by the capital market at large, where – after the closing of the stock exchange session on September 15 – we became member of the sWIG80 index. In the near future, we intend to step up our growth, as embodied e.g. by our business goal announced in May this year to achieve a 10-fold increase in sales of XTPL products and services by the end of 2026 compared to the 2022 figure, i.e. to reach a revenue of PLN 100 million. To realize this ambition, we have implemented our investment plan for 2023–2026, and have secured financing on the back of the public offer successfully completed in July this year. We will make every endeavor to be able to share further positive news in subsequent periods for the benefit of the Company and all its shareholders.

After the successful transformation of XTPL from an R&D entity into a business organization with an international visibility and steadily growing sales owing to the commercialization of all business lines, we are now entering the phase of intensifying our growth. To this end, in the recent months we have completed a public offer that not only provided us with financial resources to deliver on our goals, but also confirmed the efficacy of our business model and growth prospects. We raised over PLN 36.5 million, and the demand from domestic and international investors exceeded the size of the offer several times. The issue price was set at PLN 133.0, which means a small discount of 1.5% compared to the volume-weighted average price from the period of 30 days before the General Meeting that had approved the share issue (this mechanism was the basis for determining the issue price in previous issues). As the public offer proceeds were obtained in August, they are not yet reflected in our cash position as at the period ended June this year. At the same time, already in the second quarter, we started the implementation of our investment plan for 2023–2026, which includes, among others: increasing the Company's production capacity, developing sales, and focusing on research and development.

In the first half of 2023, we generated over PLN 5.5 million in revenues from the sale of products and services, almost a double of the year-ago figure. Grants included, total revenues were PLN 6.9 million, up almost 50% compared to the first half of 2022. Our growth trajectory since the beginning of 2021 has been primarily driven by the ongoing commercialization of all three business lines. During the period of increased investments, our EBITDA, net profit and cash flow will be more volatile than before, but we believe that this will have a positive impact on our performance in the medium term. There is a growing interest in our technology both from scientific community and, increasingly, from commercial companies. In the first half of 2023, we delivered and settled the sale of five Delta Printing System (DPS) devices. Our plan for the whole year is to use our current production capacity in full and deliver more than 10 DPSSs in total. Our line of electrically conductive nanoinks is also growing steadily. Since the beginning of its commercialization, we have already completed orders in 18 countries. Industrial implementations and sales of industrial modules will be critical for XTPL results in the long term. In the first half of 2023, two projects were added to the group of projects at an advanced stage, i.e. the construction of a prototype device with our printing module for final tests on end clients' production lines. In one of those projects, the end client is a Nasdaq 100-listed leading manufacturer of industrial machinery from the United States, and in the second project, it is one of the world's largest manufacturers of Flat Panel Displays (FPD). In total, we are developing 9 projects simultaneously, 4 of which – thanks to the successful six months until June – are already at an advanced stage and cover all 3 strategic areas for the Company: semiconductors, displays and advanced PCBs.

So far, we have communicated our business plans and goals for the coming years, but we also wish to show you how the Company is changing internally to achieve this vision. For this reason, by the end of this year we intend to publish the mid-term XTPL Strategy. We are already changing fast: we are building a new structure to effectively achieve our goals, we are streamlining processes, strengthening key departments, and we have also started to refresh our visual identity. These steps are gradually being translated into an increased efficiency of the entire organization. This is also important in the context of our extensive presence at industry events around the world, where we have always tried to

make XTPL clearly visible. In September, we were among seven Polish companies to represent Poland at SEMICON Taiwan – the most globally significant event in the semiconductor industry. Based on the great interest in our solutions during the show, we are positive that Taiwan and semiconductors are an important development direction for XTPL. Our presence in that part of the world yielded new business relationships and strengthened the existing ones. On September 11 this year, we entered into an agreement on non-exclusive distribution of our solutions in that promising market with Detekt Technology Inc., a company boasting 20 years of experience, a recognized expert in solving complex challenges in research projects and the production of advanced electronics using state-of-the-art printing technologies.

We are satisfied with our set of results for the first six months of the year, but we remain focused on the future: although the goal of achieving PLN 100 million in revenues from the sale of products and services by the end of 2026 is ambitious, it does not mark the limit of our aspirations. We want to take up a major position in the market of global suppliers of nanoprinting solutions for the next-generation electronics market and implement our technology on an industrial scale. With this in mind, we have created an investment plan and presented our business goals, and now we are moving on to the execution phase. We trust that this will allow us to scale XTPL into an organization with much greater potential to generate strong, recurring results.

We hope you will enjoy reading this report. Our Investor Relations Team stands ready to answer any questions you might have via email: [investors@xtpl.com](mailto:investors@xtpl.com).

Kind regards,

Filip Granek, PhD

A handwritten signature in blue ink, appearing to read 'Filip Granek'.

Jacek Olszański

A handwritten signature in blue ink, appearing to read 'Jacek Olszański'.

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## 1. INFORMATION ABOUT THE REPORT AND A GLOSSARY OF TERMS AND ABBREVIATIONS

XTPL Spółka Akcyjna, a joint stock company having its registered office at ul. Stabłowicka 147, 54-066 Wrocław, entered in the business register of the National Court Register kept by the District Court for Wrocław-Fabryczna, VI Commercial Division of the National Court Register under KRS No. 0000619674 (“XTPL”, “XTPL S.A.”, “Company”, “Entity”, “Parent Company”, “Issuer”), NIP: 9512394886, REGON: 361898062.

As at June 30, 2023 (“Balance Sheet Date”), the share capital of XTPL S.A. amounted to PLN 202 and consisted of 2,029,222 shares with a nominal value of PLN 0.10 each. (“Shares”).

This document (“Report”) contains the Report of the Management Board of XTPL S.A. on the activities of XTPL Group (“Group”, “XTPL Group”) and on the activities of XTPL S.A. for the first half of 2023 (“Management Report”). The standalone and consolidated financial statements of XTPL S.A. and the Group are contained in separate documents.

The Group includes the parent company and subsidiaries: XTPL Inc. with its registered office in the USA, and TPL Sp. z o.o. with its registered office in Wrocław, fully controlled by XTPL S.A. (“Subsidiaries”, “Subsidiary Undertakings”, “XTPL Inc.”, “TPL sp. z o.o.”).

Unless indicated otherwise, the source of data in the Report is XTPL S.A. The Report publication date (“Report Date”) is September 20, 2023. As at the Report Date, the share capital of XTPL S.A. amounts to PLN 230,422.20 and consists of 2,304,222 shares with a nominal value of PLN 0.10 each (“Shares”).

The consolidated financial statements mean the consolidated financial statements (including the Company and its Subsidiaries for the period from January 1 to June 30, 2023 prepared in accordance with the International Financial Reporting Standards approved for application in the EU. The standalone financial statements contained in the Report mean the Parent Company’s financial statements for the period from January 1 to June 30, 2023 (“Reporting Period”), prepared in accordance with the International Financial Reporting Standards approved for application in the EU.

“WSE” – Warsaw Stock Exchange: Giełda Papierów Wartościowych w Warszawie S.A.

“CCC” – the Act of September 15, 2000 – Commercial Companies Code.

“Regulation on current and periodic reports” means the Finance Minister’s Regulation of March 29, 2018 on current and periodic reports released by the issuers of securities and the conditions for equivalent treatment of the information required by the laws of non-member states.

“Articles of Association” – the articles of association of XTPL S.A. available to the public at <https://ir.xtpl.com/pl/materialy/korporacyjne/>.

“Public Offering Act” – the Act of July 29, 2005 on public offering, conditions governing the introduction of financial instruments to organized trading and public companies.

“Accounting Act” – the Accounting Act of September 29, 1994.

**Due to the fact that the activities of XTPL S.A. have a dominant impact on the Group’s operations, the information presented in the Management Report relates to both to XTPL S.A. and XTPL Group, unless stated otherwise.**

Unless stated otherwise, the financial data are presented in thousands.

# Financial highlights

## 2. FINANCIAL HIGHLIGHTS

### 2.1. Selected standalone figures

3. Figures in PLN thousand	January 1 – June 30, 2023		January 1 – June 30, 2022	
	PLN	EUR	PLN	EUR
Net revenue from the sale of products and services	5,532	1,199	2,970	640
Revenue from grants	1,356	294	1,816	391
Profit (loss) on sales	3,084	669	1,411	304
Profit (loss) before tax	-1,833	-397	-2,801	-603
Profit (loss) after tax	-1,833	-397	-2,801	-603
Depreciation/amortization	713	155	433	93
Net cash flows from operating activities	-458	-99	74	16
Net cash flows from investing activities	-2,356	-511	-943	-203
Net cash flows from financing activities	-219	-47	-286	-62
Figures in PLN thousand	June 30, 2023		December 31, 2022	
Equity	2,321	522	4,153	886
Short-term liabilities	12,881	2,894	7,076	1,509
Long-term liabilities	3,188	716	6,447	1,375
Cash and cash equivalents	2,883	648	5,891	1,256
Short-term receivables	3,289	739	2,577	549
Long-term receivables	176	40	366	78

## 2.1. Selected consolidated figures

Figures in PLN thousand	January 1 – June 30, 2022		January 1 – June 30, 2022	
	PLN	EUR	PLN	EUR
Net revenue from the sale of products and services	5,532	1,199	2,970	640
Revenue from grants	1,356	294	1,816	391
Profit (loss) on sales	3,084	669	1,411	304
Profit (loss) before tax	-1,741	-377	-2,704	-582
Profit (loss) after tax	-1,746	-378	-2,724	-587
Depreciation/amortization	713	155	433	93
Net cash flows from operating activities	-381	-83	117	25
Net cash flows from investing activities	-2,469	-535	-957	-206
Net cash flows from financing activities	-219	-47	-286	-62
Figures in PLN thousand	June 30, 2023		December 31, 2022	
Equity	2,223	500	3,975	848
Short-term liabilities	12,893	2,897	7,087	1,511
Long-term liabilities	3,188	716	6,447	1,375
Cash and cash equivalents	2,967	667	6,010	1,281
Short-term receivables	3,300	742	2,588	552
Long-term receivables	33	7	44	9



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shaping global nanofuture

# Management Report

### 3. MANAGEMENT BOARD'S REPORT ON THE ACTIVITIES OF XTPL S.A. AND XTPL GROUP

#### 3.1. Key information about the Issuer

<u>Business name:</u>	XTPL Spółka Akcyjna
<u>Registered Office:</u>	Wrocław
<u>Address:</u>	Stabłowicka 147, 54-066 Wrocław
<u>Country:</u>	Poland
<u>KRS:</u>	0000619674
<u>NIP:</u>	9512394886
<u>REGON:</u>	361898062
<u>Registry Court:</u>	District Court for Wrocław-Fabryczna, VI Comm. Div. of the National Court Register
<u>Country of registration:</u>	Poland
<u>Share capital:</u>	PLN 230,422.20, paid up in full.
<u>Phone number:</u>	+48 71 707 22 04
<u>Website:</u>	<a href="http://www.xtpl.com">www.xtpl.com</a>
<u>Email:</u>	<a href="mailto:investors@xtpl.com">investors@xtpl.com</a>

The Company has the status of a public (listed) company. Since February 20, 2019, its shares have been listed on the regulated (parallel) market operated by the Warsaw Stock Exchange (WSE ticker: XTP).

Since March 2020, the Company has also been listed on the Open Market at Deutsche Börse in Frankfurt (FRA ticker FRA: 5C8).

As regards financial reporting, the Group and the Company use IASs/ IFRSs.

The Group's and the Company's financial year is from January 1 to December 31.

#### 3.2. Issuer's governing bodies

##### Management Board

As at the Balance Sheet Date and the Report Date, the Management Board performed its duties in the following composition:

As at the Balance Sheet Date:	As at the Report Date:
Filip Granek, PhD, CEO	Filip Granek, PhD, CEO
Jacek Olszański – Management Board Member	Jacek Olszański – Management Board Member

##### Supervisory Board

As at the Balance Sheet Date and as at the Report Date, the Supervisory Board performed its duties in the following composition:

As at the Balance Sheet Date:	As at the Report Date:
Wiesław Rozłucki, PhD – Chairman of the Supervisory Board, an independent Supervisory Board Member	Wiesław Rozłucki, PhD – Chairman of the Supervisory Board, an independent Supervisory Board Member
Bartosz Wojciechowski, PhD – Deputy Chairman of the Supervisory Board	Bartosz Wojciechowski, PhD – Deputy Chairman of the Supervisory Board
Andrzej Domański – Deputy Chairman of the Supervisory Board, an independent Supervisory Board Member	Andrzej Domański – Deputy Chairman of the Supervisory Board, an independent Supervisory Board Member
Beata Turlejska – Supervisory Board Member	Beata Turlejska – Supervisory Board Member
Piotr Lembas – an independent Supervisory Board Member	Piotr Lembas – an independent Supervisory Board Member
Prof. Herbert Wirth – an independent Supervisory Board Member	Prof. Herbert Wirth – an independent Supervisory Board Member

#### Audit Committee:

##### As at the Balance Sheet Date and the Report Date:

Name	Role
Piotr Lembas	Chairman of the Audit Committee
Wiesław Rozłucki. PhD	Audit Committee Member
Prof. Herbert Wirth	Audit Committee Member
Andrzej Domański	Audit Committee Member

### 3.3. Group structure

#### 3.3.1. Group characteristics

The corporate group XTPL S.A. was established on January 31, 2019.

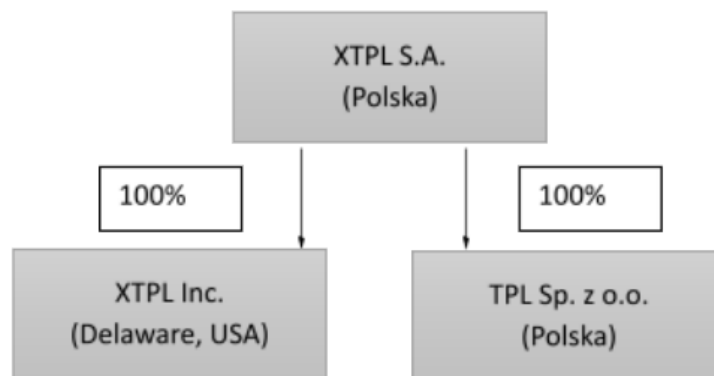
On January 31, 2019, XTPL S.A. acquired all shares in XTPL Inc., a newly formed entity based in the state of Delaware, United States. The share capital of XTPL Inc. is USD 5,000. XTPL S.A. acquired 100% of the stock at the nominal price. XTPL INC. is consolidated using the line-by-line method.

On November 3, 2020, the Issuer acquired all shares in TPL sp. z o.o. based in Wrocław. The shares in the share capital of TPL were acquired without remuneration, but as a donation from each of the TPL shareholders to the Issuer.

Under an agreement with the Issuer, TPL acts as the administrator of the Issuer's employee incentive scheme, which is an important part of managing and motivating the Issuer's employees and collaborators, contributing to the Issuer's business development and value generation.

The Company has no plants or branches.

Structure of XTPL Group as at the Report Date:



### **3.3.2. Changes in the Group organization**

Not applicable. In the Reporting Period, no changes were made in the organization of the Group.

### **3.4. Employment and information about the Issuer's employee team**

As at the Balance Sheet Date, the Company employed 54 people.

#### Our Team:

The development of XTPL ultra-precise printing technology is a success of the Company's entire team, which, using its interdisciplinary knowledge and experience, keeps achieving further technological and business goals. Technological progress is the result of intensive cooperation of engineers and specialists who pool competences of many areas of technology, business and operations.

What distinguishes the XTPL technology team is its interdisciplinary knowledge in fields such as physics, optics, chemistry, mechanics, electronics and programming. The technology team represents 65% of all employees and carries out work in individual laboratories: Application Laboratory, Nanoinks and Nanomaterials Laboratory, Mechatronic Laboratory, Material Characterization and Pre-Post Treatment Laboratory, and Numerical Simulations Laboratory.

The technology team is backed up by an operations team, which provides support in the areas of finance, law, HR, procurement, IT and project management. At the same time, the Marketing Department is responsible for marketing and PR/IR activities. Making inroads into new markets and establishing new customer relations is the responsibility of the Business Development and Customer Service Team.

Women accounted for 29.7% of the full XTPL team. At the same time, in the technology team, women represented 40.7% of the staff.

#### Team training and development:

Upskilling training courses are implemented in consultation with the team leaders and the Company's management board. Most training courses are organized on the employees' initiative. The development of the XTPL team is promoted by regular participation in domestic and foreign conferences, as well as in on-site and online industry events. Some of those events were held remotely due to the pandemic.

#### Benefits:

XTPL offers its employees a benefits package in the form of a non-wage benefits program. XTPL offers: private medical care, health & life insurance, funding for a sports program, program of awards for patent applications, employee referral program, remote working options (depending on the nature of the job), access to the XTPL corporate library and funding for English language courses.

### **3.5. Description of operations and basic products and services**

XTPL operates in the nanotechnology and microelectronics segment. The Company develops and commercializes its globally innovative platform technology of ultra-precise printing of nanomaterials, protected by an international patent application. The breakthrough nature of the XTPL method is based on the unique combination of features such as additive material deposition, deposition accuracy, inks with high concentration of silver nanoparticles, and no need to use an electric field on the substrate during the printing process. In addition, the method ensures major time and material savings, and uses the traditional advantages of printing such as scalability, cost effectiveness, simplicity and speed. Thanks to dedicated inks, the XTPL method can be used to make prints that have been so far unachievable by means of any other methods. Due to its platform character, the Company's solution will find application in the broadly understood printed electronics industry.

XTPL's strategic goal is commercialization of its platform technology of ultra-precise printing of nanomaterials in the area of advanced electronics.

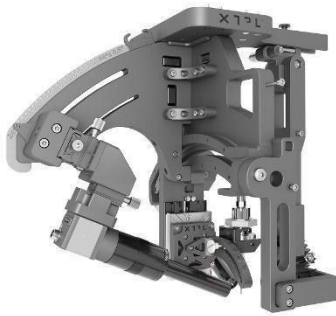
#### TECHNOLOGY:

The Ultra Precise Deposition (UPD) technology developed and patented by the Company in response to the three market megatrends in the production of modern electronics. The industry is currently strongly focused on further miniaturization of the size and weight of electronic devices, modifying their forms and properties, and moving towards an increased flexibility and three-dimensionality. A critical global trend is also environmental protection based on efficient use of limited resources while reducing the production waste, which is enabled by additive technology.

One of the biggest achievements of XTPL is the innovative Ultra Precise Deposition (UPD) technology. The XTPL printing head, equipped with a special nozzle, applies ink to the substrate to create designed structures with a width even below 1  $\mu\text{m}$ . For comparison, most of the methods of printing electronic materials available on the market with difficulty reach the value of 20  $\mu\text{m}$ , and only single manufacturers declare that they achieve values around 10  $\mu\text{m}$ . The Company's solution can be used on various types of substrates, including flexible or curved ones. The UPD technology can be used to print both simple lines as well as patterns and microdots. Simplicity, unparalleled precision, speed and versatility are the features that make the Company's solution unique.

## PRODUCTS

### EPSILON printing module for industrial integration



Developed by the Issuer, the EPSILON product line is a modular UPD dispensing device for integration with industrial systems. In this way, industrial integrators and end customers can print functional structures with high resolution and packing density. These innovative printing modules with compatible nanoinks enable the ultra-precise creation of conductive lines on the customer's selected technological substrate in low and high-volume applications. EPSILON integrates all the functions required by the XTPL<sup>®</sup> UPD technology along with electronic control and the proprietary XTPL<sup>®</sup> UPD Process Control Software package. In addition to the strong market interest in the evaluation of

the EPSILON type solution, XTPL is conducting advanced talks on the commercialization of EPSILON module solutions with three global producers of consumer electronics (in Europe, South Korea and the USA) and four industrial integrators and producers of industrial machines (in Taiwan, South Korea and the USA).

By the Report Date, the Company had sold three devices:

- to a partner from Taiwan, as a printing module, a prototype of a device for the production of semiconductors for the target customer: one of the world's largest semiconductor manufacturers (Q2 2022);
- to one of the key global manufacturers of industrial machines, including machines for the semiconductor and display industries, member of the NASDAQ 100 index (Q2 2023);
- to HB Technology – listed on KOSDAQ 078150.KQ in South Korea (Q2 2023);



### Delta Printing System (DPS)

The Delta Printing System is an independent research and development and prototype system designed to test the capabilities of XTPL's UPD technology on various substrates and with the use of the Issuer's nanoinks. The role of the device is also to promote the Issuer's technology among global opinion leaders from the deep-tech industry – including the best academic and scientific centers as well as

R&D institutes of electronics manufacturers.

The Issuer began the commercialization of this business line late in 2020/ early in 2021.

By the Report Date, the Company had sold 20 devices:

- to the University of Stuttgart, Germany (Q1 2021)
- to Karlsruhe Institute of Technology "KIT", Germany (Q3 2021)
- to PORT in Poland (Q4 2021)
- to the Glasgow University, UK (Q4 2021)
- to the University of Brescia in Italy (Q4 2021)
- to the IRIS Adlershof Institute from the Humboldt University of Berlin, Germany (Q3 2022).
- to Yi Xin HK Technology Co., China (Q3 2022)
- to an industrial entity, United States (Q3 2022)
- to Yi Xin HK Technology Co., China (Q4 2022) – three devices for end buyers:
  - Southeast University School of Electronic Science Engineering in Nanjing
  - Harbin Institute of Technology in Harbin, China
  - Tianjin University School of Precision Instrument and Opto-Electronics Engineering in Tianjin, China;
- to HB Technology, Korea (Q4 2022)
- to Yi Xin HK Technology Co., China (Q4 2023) – four devices for end buyers:
  - South China University of Technology from Guangzhou, China
  - University of Electronic Science and Technology of China from Chengdu, China
  - Beijing Institute of Technology from Beijing, China
  - School of Integrated Circuits, Guangdong University of Technology, China
- to Yi Xin HK Technology Co., China (Q2 2023) – one device for end buyer:
  - Tianjin University in Tianjin, China
- to the Electrical & Computer Engineering Department at Northeastern University in Boston (Q2 2023)
- to the Germany-based laboratory of the German-American consortium developing hardware and software for advanced data analysis and machine learning (Q2 2023)
- to the CENIMAT|i3N scientific research center in Portugal (Q3 2023).

The Issuer is gradually delivering the devices to the buyers.



### Highly concentrated nanoinks

Developed by the Company's in-house R&D team, the nanoinks with a unique formulation are one of the elements of XTPL ultra-precise deposition method. They have special physicochemical properties enabling full utilization of the UPD method's potential. In this way, the Company can develop the additive technology comprehensively, with concurrent work on the ink deposition head and constant adaptation of the deposition material. Most of the inks used by XTPL are based on silver nanoparticles. Other elements are also used, including gold, copper and platinum, as well as quantum dots, for example. Owing to

the diversity of materials, XTPL can flexibly respond to the needs of the market and individual clients.

The XTPL method can also accommodate many commercially available materials, which may expand the area of its application in the future, giving customers real technological versatility. With the small size of silver nanoparticles, in the range of 35 to 50 nm, their high stability and high electrical conductivity after the sintering process, the product is attractive for the ongoing development projects in the field of printed electronics.

Thanks to the proven compatibility and highly efficient application of XTPL inks in non-UPD printing method, such as: LIFT (Laser Induced Forward Transfer), Aerosol Jet printing (with pneumatic systems), and high-viscosity ink micro-dispensing techniques, the Company has been able to expand the group of its customers to include users of other commercial technologies. By entering the market of conductive materials and expanding the range of its inks available for other market segments, XTPL has decided to develop its nanoinks proposition as a complementary and stand-alone business line.

### APPLICATION:

At present, the Company is focusing on commercialization of its technology in selected application fields. The first field is displays, where XTPL intends to offer open defect repair (ODR) in the first place. Along with the development of displays, increasing their resolution and functionality, the level of their miniaturization and the density of conductive paths also increases. A side effect of this development is a greater likelihood of critical defects, including broken conductive paths. For manufacturers, this means losses generated already on the production line as a result of the need to reject panels that fails quality tests. XTPL stands the chance to be the first and, for the time being, the only market player to introduce a proprietary solution, which will ensure a significant reduction of production losses without compromising the quality of the repaired displays. Next, the Company plans to provide the display industry with solutions that will help achieve a significant increase in the resolution of a new class of displays, also for new, flexible substrate types.

In the long run, the Company intends to develop its solution for new market segments. The XTPL technology may be implemented in the semiconductor industry also as a sought-after alternative for photolithography or in new types of connecting integrated circuits with PCBs, and, for example, facilitate the fabrication of innovative security printing solutions, functional and effective biosensors and high-performance photovoltaic panels. The technological revolution in which the Company is to play a vital role is about



enabling the manufacture of complex and complicated electronic devices using cheap and scalable printing methods.

### 3.6. Business model, strategy and development outlook

#### BUSINESS MODEL:

XTPL is a supplier of advanced ultra-precise technology for nanomaterials printing. It develops and commercializes the technology in a way dedicated to a specific application field, and will rely primarily on the selected model:

- LICENSING:  
The Company develops a technological solution dedicated to a particular application field, which is licensed to a partner who on its basis builds devices that allow the technology to be used in industry. In this case, the Company generates revenue from license fees related to the sale of devices equipped with the developed technology.
- STRATEGIC PARTNERSHIP AND DISTRIBUTION AGREEMENTS:  
The Company develops a technological solution dedicated to a particular application field; the solution is then commercialized in cooperation with a strategic partner under a joint venture agreement. In this case, commercialization tasks are divided between the partners in accordance with their competencies and potential. The Company participates in profits achieved through the joint venture.

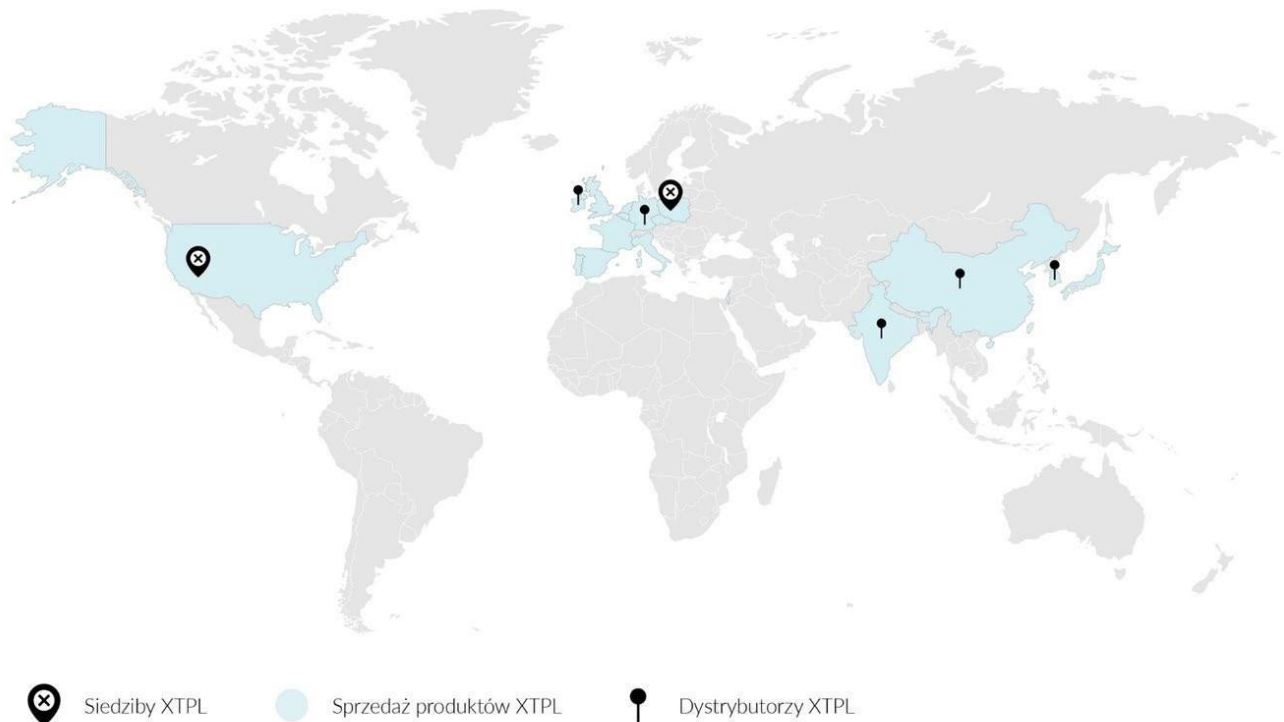
Another possible option is to acquire a distributor for the Company's technology and products in a particular geographical region. In this case, the terms of cooperation and contracts will be determined depending on the market, the distributor's position, and the obligations agreed by the Parties.

- SALE OF PRODUCTS  
The Company also develops sales of its proprietary products: Conductive nano-inks, based on silver nanoparticles, intended for use in printed electronics, and also adapted to other printing methods such as Ink Jet, Aerosol Jet and LIFT, and laboratory and prototyping devices complete with the necessary consumables. The Delta Printing System can be both a revenue source when sold to research institutes and industrial R&D departments, and an intermediate step towards licensing revenue in deals with business partners. Cooperation in the two areas will be based on a mutual exchange of experiences and knowledge, while the device will be delivered on commercial terms. In addition, each demonstrator sold will generate a stream of revenue from consumables, such as inks, cartridges, capillaries, as well as services, including consulting, research and maintenance (for the machines and software).

The choice of the optimal business model depends on the specific customer in the particular application field. Current talks take into account all of the above-mentioned business models, and the appropriate model is selected during the relationship-building process.

### International Distributor Network

Starting from 2021, the Company began building a distribution network that will facilitate the promotion of XTPL technologies and products on the Issuer's most important markets. The need for that model of operation arose in 2020, when the coronavirus outbreak derailed the organization of on-site industry events. The difficulties building direct relations with potential buyers of XTPL technology prompted the Management Board to look for an alternative solution. As a result, during 2021 XTPL quickly attracted first five distribution companies to represent it on Asian and European markets. In Q1 2022, partnership was forged with another two companies. In addition, in 2019, the Issuer also set up a commercial presence in the form of a subsidiary in the United States.



### MARKET ENVIRONMENT AND OUTLOOK

With its technology, the Company is targeting the market of electronics, the production of which could potentially be completely replaced by additive printing. The market is growing fast. In 2022, its value exceeded USD 51 billion, with the display market having the highest share in it (nearly USD 45 billion), according to IDTechEx. According to the same report, the value of components produced solely by printing methods exceeded the USD 6.5 billion in 2022. Other reports, including those published by Grand View Research, suggest that the value of the printed electronics market in 2022 exceeded USD 10 billion, and is expected to reach USD 53 billion in 2030. According to the authors of the report, the value of that market is driven by the increasing demand for energy-efficient thin and flexible consumer electronics.

XTPL's strategic goal is wide commercialization of its platform technology of ultra-precise printing of materials in the area of advanced electronics. The company seeks to adapt its technology for various application fields, and then offer the technological solution to industrial partners through various mechanisms: licensing, strategic partnerships and joint ventures. The overarching objective of XTPL's operations is to implement nanoprinting solutions adapted to market needs in selected industry sectors.

#### Value of the R&D equipment market

According to the Issuer's estimates based on available market data, the global annual sales of printers for R&D, rapid prototyping and small-lot production in the area of broadly understood printed electronics amount to approx. 250–500 devices per annum. The price of those printers ranges from EUR 50 thousand to more than EUR 500 thousand per device.

#### Value of the conductive nanoinks market

According to the authors of the report published by IDTechEx, the global market for conductive inks exceeded USD 2.7 billion in 2022, and is expected to reach USD 4.5 billion in 2033. The data published in another market report – Custom Market Insights (CMI) – show that the global market for conductive inks reached USD 3.8 billion in 2021, and is expected to reach USD 9.8 billion in 2030. The market is buoyed by the growing use of electronics in the rapid urbanization processes, miniaturization of electronic components, as well as by the possibility of reducing production costs while maintaining high electrical conductivity and efficient manufacturing in line with environmental protection standards.

#### DEVELOPMENT DIRECTIONS AND FOCUS AREAS:

An exceptional feature of the XTPL technology is the possibility of its application in many fields of industry.

**Presented below are applications in the areas that are currently key for the Company:**

#### **Displays:**

Currently, commercialization is carried out in a subsector of this market, namely the open defect repair. XTPL offers a new breakthrough solution that allows defects in conductive paths to be repaired at low cost, with precision and speed unparalleled to any other existing solution. The technology developed by the Company will help display manufacturers increase production efficiency and reduce costs associated with material losses.

Another area of application of the technology for flat panel displays is the precise printing of electrical connections for LEDs in micro-LED displays. The Company's technology can be used for printing repeatable conductive structures with a diameter of less than 10  $\mu\text{m}$  and a very aspect ratio. These unique properties are much in demand amongst manufacturers of future micro-LED displays.

#### **FHE (flexible hybrid electronic) sector:**

Flexible hybrid electronics is another new market that is in the focus of the Company's attention. Companies such as Boeing, Lockheed Martin, Applied Materials and research centers including Dutch Holst Centre, Belgian IMEC and German Fraunhofer have already confirmed their activities in that field. In the United States, Next Flex was formed, an institution bringing together 90 representatives of the industry and 28

representatives of research universities. This is the largest agency investing in the FHE sector. According to an analysis by Mordor Intelligence, the FHE market in 2019 was valued at USD 95 million, but in already 2025 it may reach USD 235 million. According to IDTechEx, FHE is expected to become “ubiquitous” in 2030 and reach a value of even USD 3 billion.

### **Semiconductors market**

Another market for the Company’s technology is the semiconductor market. Its special application areas include making electronic connections on complex 3D topographies and heterogeneous substrates in advanced integrated circuits or microelectromechanical systems (MEMS). According to an analysis carried out by Mordor Intelligence that takes into account the impact of the COVID-19 pandemic, in 2020, the global market for advanced integrated circuits reached USD 24.93 billion, and by 2026 is expected to grow even to USD 38.62 billion. The size of this market shows great possibilities: not only in terms of potential application of the UPD technology in new areas, but also in the research and prototyping of new systems.

In this area, the Company is conducting active talks (at various levels of advancement) with market leaders.

Moving forward, the growth of the electronics market will be strongly driven by the areas where conventional production methods cannot be applied. By marketing its UPD technology embodied by the Delta Printing System, the Company promotes the innovative, proprietary solution that is used by pioneering research and scientific centers in their research and development, while at the same time defining breakthrough standards for the production of future electronic devices.

The new, already identified and pre-verified application areas for the XTPL technology include:

- PCB (printed circuit boards) market
- biosensors market
- photovoltaic cells market.

All the Company’s R&D work takes place in Poland. Commercialization will be primarily focused on markets of North America (mainly the United States), Asia (China, Korea, Taiwan, Japan) and EMEA.

## **3.7. XTPL’S AND GROUP’S ACTIVITY AND ACHIEVEMENTS IN H1 2023**

### **3.7.1. Summary of activities related to the commercialization of the technology developed by the Company:**

In the first half of 2023, the Company continued activities aimed at closing further sales transactions within all its business lines.

#### **Delta Printing System:**

During the Reporting Period, the XTPL team responsible for the commercialization of the Delta Printing System held numerous talks and engaged in many interactions with potential clients. As a result, the Company

generated a list of experts from around the world, operating mainly in the microelectronics, microsystems, semiconductors, biosensors, displays and similar industries, who highly value the technology developed by the Company and are potential buyers of XTPL products in the following years.

The unprecedentedly high printing precision, especially when using highly-viscous metallic inks, which is enabled by the Delta Printing System, is the main feature that makes global technological innovators interested in this device. Users of the Delta Printing System appreciate the device also for its ease of use, platform character and the ability of quick start without long prior preparation, and for not having to clean the printing elements once the work is finished. The printed logo of KIT on a human hair is an unusual way of showing the possibilities of the Company's technology and device. Importantly, this kind of printout can be made right after a short user training conducted by the Company's team.

The Company's efforts helped stimulate a substantially increased interest in the Delta Printing System. In the first half of 2023, the Company confirmed a total of seven orders for the delivery of the Delta Printing System (DPS). This includes orders from Yi Xin HK Technology Co., China – five devices for end buyers:

- South China University of Technology from Guangzhou, China
- University of Electronic Science and Technology of China from Chengdu, China
- Beijing Institute of Technology from Beijing, China
- School of Integrated Circuits, Guangdong University of Technology, China
- Tianjin University in Tianjin, China.

Moreover, in the first half of 2023, the Issuer confirmed the acceptance of the following orders: on June 22, 2023 – an order placed by the Electrical & Computer Engineering Department at Northeastern University in Boston, and a day later, on June 23, 2023, an order for a deep-tech company with based in Germany.

After the Balance Sheet Date, i.e. on July 24, 2023, the Company confirmed an order placed by the CENIMAT|i3N scientific research center in Portugal for the delivery of the Delta Printing System device, and on September 6, 2023 it confirmed an order for the Research Institute of Tsinghua University in Shenzhen, China.

In addition, XTPL continues talks with other clients. The interest of potential buyers of the Delta Printing System is particularly attracted by the Company's activities aimed at direct relationship-building, participation in trade fairs and conferences, cooperation with local distributors and promotion of the device by its current users, who present and publish the results achieved by means of the Company's technology. The possibility of making microelectronic structures that previously could not be achieved using alternative methods is highly noted both by academic and industrial communities.

### **Metallic nanoinks:**

The fundamental concepts of nanoinks production elaborated by the Company during the development of conductive materials for the UPD technology have been commanded by representatives of scientific and industrial communities as extremely valuable in terms of production of new types of electronic devices with

the use of additive technologies. Those concepts respond to the high requirements of the rapidly growing market for conductive inks, including the need for efficient deposition at a high load of the metallic component. The developed know-how enables the Company to sell its inks to various segments of the printed electronics market, animating further advances along this path of the Company's development.

Growing sales are generated on the back of this business line. The unique properties of XTPL inks have been successfully put to use in the projects of clients who operate in the sectors nanotechnology, OLED displays, and smart devices for medical technologies, using inkjet printing techniques, LIFT (Laser Induced Forward Transfer), and micro-dispensing techniques for high-viscosity inks.

The Company's laboratories are working on new formulations of nanoinks and there are plans to add those materials to the XTPL offer in 2023. In the Reporting Period, the Company also held talks with leaders of electronics manufactured by means of the additive method, and is talking to them about the establishment of strategic partnerships in the area of conductive inks. If the negotiations and ensuing business relations are successful, additional distribution channels will be established for nanoinks, and growing revenues will be achieved from the sale of those products.

### **Industrial implementations of the Company's technological solutions**

As regards the Issuer's third and key business line – implementation of the XTPL technology on the production lines of global electronics manufacturers – work was conducted on nine projects from the Company's project pipeline. In addition to the reported pipeline, the Company intends to have up to five projects that will be developed to bring them to a higher level of evaluation.

On top of that, in the Reporting Period the Issuer maintained its focus on other tasks related to the commercialization of the UPD technology in industrial applications. The most advanced talks and efforts are focused on selected applications related to the precise deposition of functional inks for:

- (a) yield management in the area of high-resolution OLED displays;
- (b) yield management in the semiconductor industry, in the area of back-end semiconductor chip processing;
- and
- (c) depositing metallic inks to make high density metallic interconnections of the advanced PCBs.
- (d) producing conductive 3D interconnections

At the same time, the Company also engaged in talks with industrial entities regarding the use of the UPD technology to repair other types of advanced devices. This applies to the repair of displays made in micro-LED technology and the repair of defects in advanced integrated circuits. For both described applications, low production efficiency was one of the biggest challenges to further commercialization and to reduction of the unit price of the end product. The technology presented by the Company may solve this problem and help popularize new products (micro-LED displays and more efficient integrated circuits).

In addition to the strong market interest in the evaluation of UPD technology integration in production processes, XTPL is conducting advanced talks on the commercialization of printing module solutions with three global producers of consumer electronics (in Europe, South Korea and the USA) and four industrial integrators and producers of industrial machines (in Taiwan, South Korea and the USA). The sale of printing modules equipped with the UPD technology, and then the supply of consumables and paid maintenance of the modules are financially attractive for the Company. Increasing the variety of devices in the market will help the Company reach more customers and make inroads into new markets.

In the first half of 2023, the Company received two orders for printing modules for industrial applications:

- 1) On May 26, 2023 – an order for the delivery of a printing module for industrial integration. The ordering partner is one of the key global manufacturers of industrial machines, including machines for the semiconductor and display industries, member of the NASDAQ 100 index;
- 2) On June 1, 2023 – an order for the delivery of a printing module for industrial integration. The ordering partner is HB Technology, listed on KOSDAQ 078150.KQ in South Korea, a manufacturer of devices for testing and repairing devices for the largest global display makers.

#### **Commercialization activities in the Flat Panel Display sector (ODR)**

The Company continues cooperation with manufacturers of high-resolution displays in the area of repairing open defects in conductive trances within the electrical layer, as well as in the area of using precise deposition technology for the production of new types of displays based on quantum dots technology. At the same time, the Company started talks and began evaluation tests with other display manufacturers in China and South Korea.

Based on talks and market analyses, the Company has also focused on repairing defects in micro-LED displays. These displays use LED diodes as a light source. Due to their size, the diodes can be used as independent pixels. The biggest challenge in manufacturing is to ensure proper efficiency level. If just one in tens of millions of LEDs is not properly mounted, the display will fail the quality test. By using the UPD technology, the micro-LED diode can be mounted again connected to electricity, which will significantly increase efficiency of the manufacturing process.

As regards the Issuer's activities in the ODR sector, it should be noted that in the first half of 2023, talks continued with representatives of a Korean company producing devices for the display industry and with an end-user – a display manufacturer.

In H1 2023, the Issuer delivered the Delta Printing System as a technology validation device in the area of next generation ultra-high resolution micro OLED displays in order to speed up the analysis process and adapt the XTPL solution to the needs of the end customer. The device was ordered by HB Technology, listed on KOSDAQ (078150.KQ) in South Korea, a manufacturer of devices for testing and repairing devices for the largest global display makers. HB Technology's clients are the world's leading manufacturers, including Samsung Display Corporation and Beijing BOE Display Technology. Acceptance of the order means moving on to the next stage of work on the use of the Company's technology at the end client, a leading manufacturer of flat panel displays (FPDs).

### Commercialization activities in the area of advanced integrated circuits

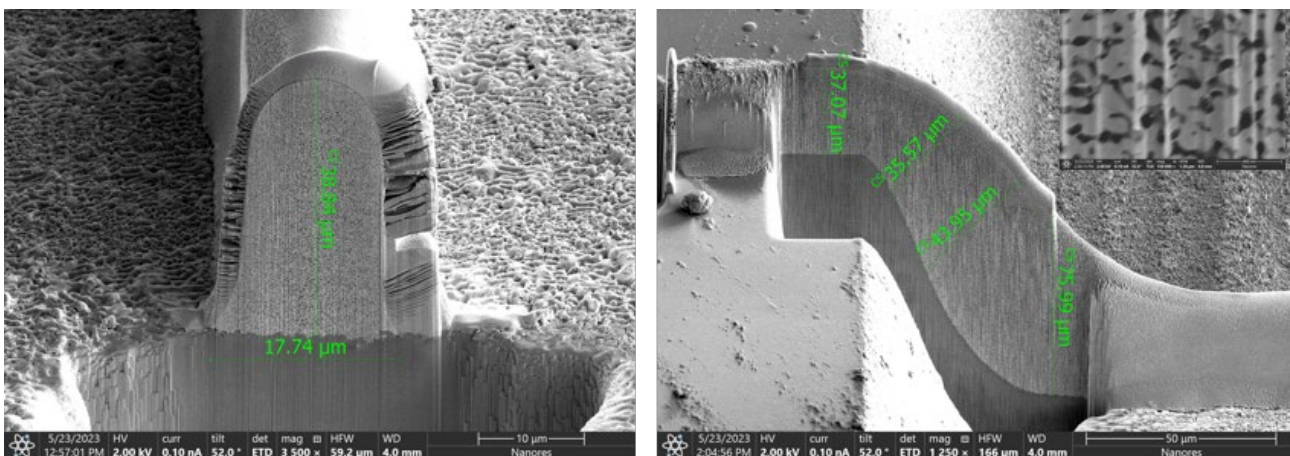
The Company's technological solution consisting in the possibility of printing using material of very high viscosity on 3D surface topographies has attracted attention from manufacturers of advanced integrated circuits. With the UPD technology, it is possible to make precise electrical connections in SiP (System-in-Package) systems, which bring together two or more integrated circuits in one housing. Entities with whom talks are being held are global top-tier producers in this area, based in North America, Asia and Europe.



### 3.7.2. Achievements and progress in research and development

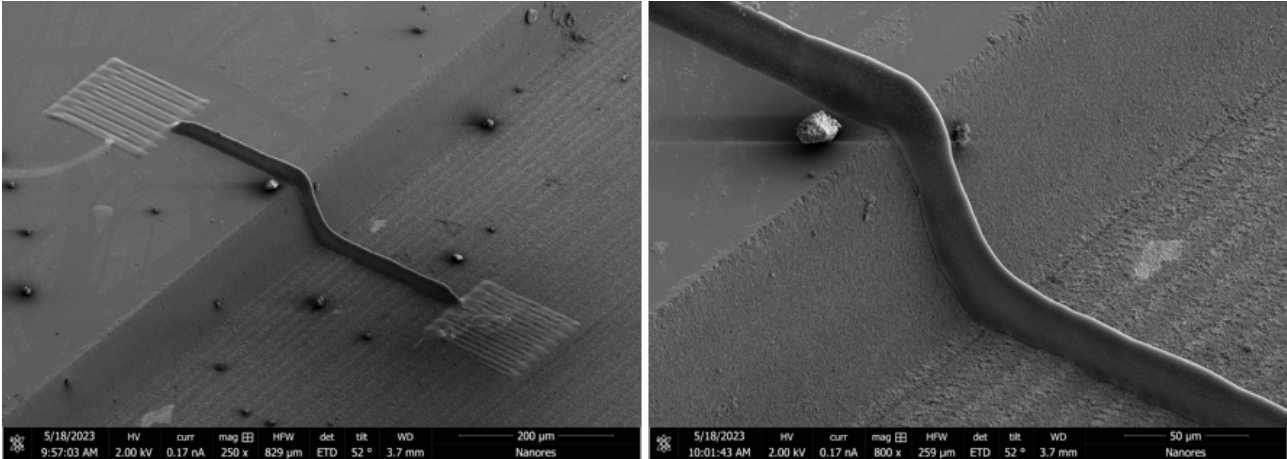
1. Development of gold-based inks with a record concentration of material compared to other products available in the market.
2. Development of a paste based on copper and silver nanoparticles, as well as a printing method whereby conductive paths can be deposited on 3D substrates. The technology can be used for printing on substrates with steps ranging from 10  $\mu\text{m}$  (copper pastes) to 80  $\mu\text{m}$  (silver pastes). Additionally, a technology has been developed for sintering printed materials to obtain conductivity exceeding 25% of the conductivity of a given metal.
3. Development of a printing method and a paste based on silver nanoparticles for the repair of electrical connections at the edges. By means of this method, conductive silver structures can be created on edges (by connecting electrodes on both sides of the substrate through the edge) with widths below 20  $\mu\text{m}$  on both flexible and rigid substrates.
4. Implementation of new features of the Delta Printing System, including the installation of a specialized holder for the accurate handling of the sample when printing on edges.
5. Implementation of the AI technology to automate the printing process – automatic positioning of the printing head in the Delta Printing System.

As part of our R&D efforts, we focused on creating advanced pastes based on Ag and Cu nanoparticles, adapted to specific technological requirements. For the Cu paste, we achieved the ability to cover 10  $\mu\text{m}$  high steps, while creating a 20  $\mu\text{m}$  wide line with a height-to-width aspect ratio of 1. Moreover, the Company ensured a minimum electrical conductivity of 25% of that of solid copper. The Ag paste has been optimized to effectively cover 80  $\mu\text{m}$  high steps while maintaining the aspect ratio of 1. In this case, the Company achieved an electrical conductivity of at least 30% of that of solid silver.

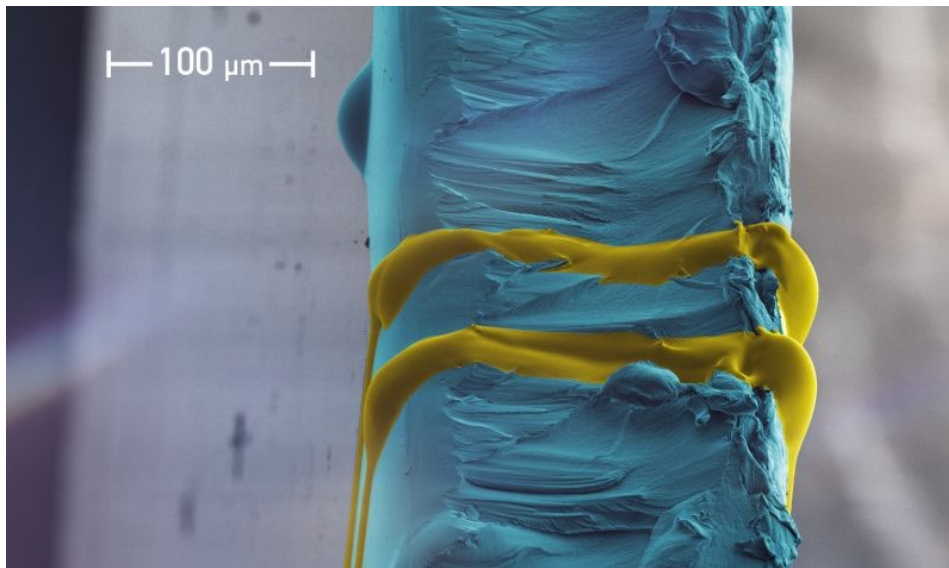


XTPL conductive inks based on silver nanoparticles, due to their physicochemical properties, attract the interest of manufacturers from various industry sectors and scientific experts. In response to the growing market interest in those nanoinks, which are protected by patent applications, steps are being taken to

expand the Company's offering with new products. Currently, the Company cooperates with R&D units in Europe and the United States to verify the compatibility and advantages of using the new XTPL-developed formulations for specific printing methods, such as: LIFT (Laser Induced Forward Transfer), Aerosol Jet printing (with ultrasonic systems) and electro-hydro-dynamic (EHD) printing.



Together with the development of the Ag paste, XTPL has developed a printing technique focused repairing interconnections on edges. The Company's technique allows silver conductive structures with widths below 20 µm to be deposited on the edges of both flexible and rigid substrates. In addition, as part of improvements to the Delta Printing System, we have introduced new features, including a specialized handle for precise manipulation of the sample while printing on the edge.



In H1 2023, the Company also focused on optimizing the capability of automatic printing. The implementation of the AI technology to automate the printing process in the Delta Printing System enables automatic positioning of the printing head in relation to the substrate. The AI algorithm integrated with the motorized camera ensures a number of new features, including automatic maintenance of the printing nozzle

in the camera's field of view, automatic correction of the nozzle image sharpness, and automatic recognition and location of the tip of the printing nozzle in the image. The automation of the process using artificial intelligence makes it possible to create complex structures with minimum or no operator participation during the printing process. The implementation of this function is key for both industrial printing systems and the Delta Printing System laboratory device.

#### Milestones achieved by the Issuer in H1 2023:

1. Development of gold-based pastes with metal concentrations exceeding competitive products available in the market.
2. Completion of work on a paste based on copper and silver nanoparticles and implementation of a technology for printing on 3D substrates, with the printed structures having an aspect ratio of 1 and an electrical conductivity above 25% of the conductivity of solid metal.
3. Development of a technology for effective repair of electrical interconnections on edges while maintaining precise path width. Development of a specialized handle in the Delta Printing System for sample manipulation during the printing on edges.
4. AI-based automation. Implementation of AI technology for automatic positioning of the printing head, which increases the efficiency and precision of the printing process.

#### **3.7.3. Issuer's activities designed to its intellectual and industrial property**

The policy of building a patent family plays an crucial role in the processes of commercialization of the technological solutions designed and implemented the Company. Intellectual property is a product and a competitive advantage of XTPL. For this reason, patent cloud development has a major impact on the business value – the size and appropriate protection of the cloud are key to the market position. XTPL solutions are protected from the moment of patent filing with the appropriate office.

The Company distinguishes five patent groups for its technology and products based on that technology:

1. UPD process – patents describing the ultra-precise deposition process or a device used for this process
2. Nanoinks – patents protecting various nanoink formulations
3. Software – patents protecting the solutions implemented in the software that controls the printing devices
4. Application fields – patents describing solutions to specific technological problems using the UPD method
5. Characterization and quality control – patents related to the characterization and quality control of selected components of the printing head

In H1 2023, the Company continued activities related to the development of the patent cloud, i.e.:

- 1) On March 8, 2023, the Issuer obtained information that the Malaysian Patent Office had granted it patent for its method of forming lines with a width below 1 micrometer using the XTPL-developed ink

containing nanoparticles of silver, i.e. for a patent application entitled “Bottom-up method for forming wire structures upon a substrate” (the Issuer provided this information in ESPI Current Report No. 7/2023 of March 10, 2023).

- 2) On March 14, 2023, the Issuer received information about the validation of a patent by the German Patent and Trade Mark Office for the method of precise control of the position of the printhead and control of the distance between the printhead and the substrate. The patent was granted in response to the patent application “Methods of detecting and adjusting contact of a micro-structural fluid ejector to a substrate and method of detecting a fault condition in fluid flow from a micro-structural fluid ejector onto a substrate” (the Issuer communicated this information via ESPI Current Report No. 9/2023 of March 14, 2023);
- 3) On March 16, 2023, the Company received information about the conditional granting of a patent by the Chinese Patent Office for the method of Ultra-Precise Deposition. The patent was granted in response to the patent application “Method of printing fluid” (the Issuer communicated this information via ESPI Current Report No. 10/2023 of March 17, 2023);
- 4) On March 17, 2023, the Company received information about the conditional granting to the Company by the United States Patent and Trademark Office a patent for the method of characterising and optimising ink flow in the printing head. The patent was granted in response to the patent application “Method of estimating an output diameter of a capillary tube, and related methods” (the Issuer communicated this information via ESPI Current Report No. 11/2023 of March 17, 2023);
- 5) On March 17, 2023, the Company received information about the conditional granting of a patent by the Chinese Patent Office for the printing device used in the Ultra-Precise Deposition process, i.e. for the patent application “Fluid printing apparatus” (the Issuer communicated this information via ESPI Current Report No. 12/2023 of March 20, 2023);
- 6) On March 21, 2023, the Company received information about the conditional granting of a patent by the Japanese Patent Office for the method of Ultra-Precise Deposition. The patent was granted in response to the patent application “Method of printing fluid” (the Issuer communicated this information via ESPI Current Report No. 13/2023 of March 22, 2023);
- 7) On April 19, 2023, the Issuer received information about the conditional granting of a patent by the United States Patent and Trademark Office for the printing device used in the Ultra-Precise Deposition process, i.e. for the patent application “Fluid printing apparatus” (the Issuer communicated this information via ESPI Current Report No. 17/2023 of April 20, 2023);
- 8) On April 19, 2023, the Company received information about the conditional granting of a patent by the United States Patent and Trademark Office for the method of Ultra-Precise Deposition. The patent was granted in response to the patent application “Method of printing fluid” (the Issuer communicated this information via ESPI Current Report No. 18/2023 of April 20, 2023);
- 9) On May 29, 2023, the Issuer obtained information that the Intellectual Property Office of Vietnam had granted it patent for its method of forming lines with a width below 1 micrometer using the XTPL-developed ink containing nanoparticles of silver, i.e. for a patent application entitled “Bottom-up method for forming wire structures upon a substrate” (the Issuer provided this information in ESPI Current Report No. 22/2023 of June 1, 2023).

In addition, after the Reporting Period:

- 1) On July 26, 2023, the Company received information that the United States Patent and Trademark Office had granted it patent for the method of characterizing and optimizing ink flow in the printing head. The patent was granted in response to the patent application “Method of estimating an output diameter of a capillary tube, and related methods” (the Issuer communicated this information via ESPI Current Report No. 40/2023 of July 27, 2023);
- 2) On August 3, 2023, the Company received information about the conditional granting of a patent by the Japanese Patent Office for the printing device used in the Ultra-Precise Deposition process, i.e. for the patent application “Fluid printing apparatus” (the Issuer communicated this information via ESPI Current Report No. 42/2023 of August 4, 2023).

The Company has adapted its process of filing patent application to the recommendations of the patent offices cooperating with it and the advisors from the executive board of XTPL Inc. based in the United States. The recommendations concern, *inter alia*, an appropriate combination of new technological solutions and inventions into a single patent application. This is expected to increase the quality of individual submissions and consequently strengthen protection of the Company's intellectual property.

As at the Report Date, the Company had 26 patent applications in total. As at the Report Date, the Company has 8 patents approved, covering e.g. the territory of Japan, China, South Korea, Germany and the USA. As at the Report Date, the Company had trademarks registered with the Patent Office of the Republic of Poland and the European Union Intellectual Property Office, as well as in China.

#### 3.7.4. Events during the Reporting Period

Date	Event	Current Report
January 4, 2023	The Company confirmed another order placed by Yi Xin HK Technology Co., Ltd, based in China, for the delivery of the Delta Printing System. The end buyer of the device will be a leading Chinese R&D center South China University of Technology from Guangzhou, China.	ESPI Current Report No. 1/2023 of January 4, 2023
January 19, 2023	The Company confirmed another order placed by Yi Xin HK Technology Co., Ltd, based in China, for the delivery of the Delta Printing System. The end buyer of the device will be a leading Chinese R&D center University of Electronic Science and Technology of China from Chengdu.	ESPI Current Report No. 3/2023 of January 19, 2023
February 6, 2023	The Company confirmed another order placed by Yi Xin HK Technology Co., Ltd, based in China, for the delivery of the Delta Printing System. The end buyer of the device will be a leading Chinese R&D center Beijing Institute of Technology from Beijing.	ESPI Current Report No. 5/2023 of February 6, 2023



Date	Event	Current Report
March 8, 2023	The Company confirmed another order placed by Yi Xin HK Technology Co., Ltd, based in China, for the delivery of the Delta Printing System. The end buyer of the device will be a leading Chinese R&D center School of Integrated Circuits, Guangdong University of Technology.	ESPI Current Report No. 6/2023 of March 8, 2023
March 8, 2023	<p>The Company received information that it was granted patent by the Malaysian Patent Office for its method of forming lines &lt;1 micrometer wide using the XTPL-developed silver nanoink (patent application: "Bottom-up method for forming wire structures upon a substrate").</p> <p>The application procedure for this patent was initiated on March 22, 2016. This is also the date when patent protection started for the invention.</p>	ESPI Current Report No. 7/2023 of March 10, 2023.
March 9, 2023	Block transaction involving the sale of 50,000 shares by Sebastian Młodziński, and a decrease of his stake in the Company's share capital from 10.650% to 8.186%.	ESPI Current Report No. 8/2023 of March 13, 2023
March 14, 2023	<p>The Company received information about the validation of a patent by the German Patent and Trade Mark Office for the method of precise control of the position of the printhead and control of the distance between the printhead and the substrate. The patent was granted in response to the patent application "Methods of detecting and adjusting contact of a micro-structural fluid ejector to a substrate and method of detecting a fault condition in fluid flow from a micro-structural fluid ejector onto a substrate".</p> <p>The application procedure for this patent was initiated on April 15, 2019.</p>	ESPI Current Report No. 9/2023 of March 14, 2023
March 16, 2023	The Company received information about the conditional granting of a patent by the Chinese Patent Office for the method of Ultra-Precise Deposition. The patent was granted in response to the patent application "Method of printing fluid". The application procedure for this patent was initiated on February 1, 2019.	ESPI Current Report No. 10/2023 of March 17, 2023.
March 17, 2023	<p>The Company received information about the conditional granting to the Company by the United States Patent and Trademark Office a patent for the method of characterizing and optimizing ink flow in the printing head. The patent was granted in response to the patent application "Method of estimating an output diameter of a capillary tube, and related methods".</p> <p>The application procedure for this patent was initiated on February 12, 2020.</p>	ESPI Current Report No. 11/2023 of March 17, 2023

Date	Event	Current Report
March 17, 2023	<p>The Company received information about the conditional granting of a patent by the Chinese Patent Office for the printing apparatus used for the method of Ultra-Precise Deposition. The patent was granted in response to the patent application “Fluid printing apparatus”.</p> <p>The application procedure for this patent was initiated on February 1, 2019.</p>	<p>ESPI Current Report No. 12/2023 of March 20, 2023</p>
March 21, 2023	<p>The Company received information about the conditional granting of a patent by the Japan Patent Office for the method of Ultra-Precise Deposition. The patent was granted in response to the patent application “Method of printing fluid”.</p> <p>The application procedure for this patent was initiated on February 1, 2019.</p>	<p>ESPI Current Report No. 13/2023 of March 22, 2023</p>
March 29, 2023	<p>On March 29, 2023, the parties to the Agreement (Nano Dimension and XTPL S.A.) agreed that the key elements of the fourth stage of development works as part of the technological phase of the activities specified in the Agreement were successfully implemented. The parties agreed that accepting the key works at this stage triggers the payment for the Company in the amount corresponding to the completed elements and in accordance with their valuation. The related revenue will be recognized in Q1 2023 and will significantly influence the financial results for that period. The parties also agreed to continue work on the remaining elements of the fourth stage of research and development in accordance with the Agreement and began jointly defining subsequent phases of commercial cooperation, including further orders to develop a method for producing a special formulation of electrically conductive ink for industrial use in the Customer's products dedicated for the production of PCBs.</p>	<p>ESPI Current Report No. 14/2023 of March 30, 2023</p>
April 11, 2023	<p>The Company confirmed another order placed by Yi Xin HK Technology Co., Ltd, based in China, for the delivery of the Delta Printing System. The end buyer of the device will be a leading Chinese R&amp;D center University of Tianjin.</p>	<p>ESPI Current Report No. 15/2023 of April 11, 2023</p>

Date	Event	Current Report
April 19, 2023	<p>The United States Patent and Trademark Office had granted the Company a conditional patent for the printing device used in Ultra-Precise Deposition process, i.e. for the patent application "Fluid printing apparatus".</p> <p>The application procedure for this patent was initiated on February 1, 2019. This is also the date when patent protection started for the invention. The Company's portfolio currently includes 26 patent applications and a total of 7 patents granted. The final formal requirement for obtaining the patent is to pay the patent fee by July 13, 2023.</p>	ESPI Current Report No. 17/2023 of April 20, 2023.
April 19, 2023	The Company received information about the conditional granting of a patent by the United States Patent and Trademark Office for the method of Ultra-Precise Deposition. The patent was granted in response to the patent application "Method of printing fluid".	ESPI Current Report No. 18/2023 of April 20, 2023.
May 12, 2023	The Management Board of XTPL S.A took and announced the decision on the intention to continue financing the Company's operations using, among other sources, proceeds from the issue of new shares. The Company's Management Board intends to issue up to 275,000 ordinary bearer shares addressed to investors who meet the requirements set out in the issue resolution. The share issue proceeds are to be used to co-finance part of the planned investments totaling approx. PLN 60 million in 2023-2026 in three key business areas: sales, production and R&D. The funds raised from the share issue are to finance approx. half of the required investment amount, with the remaining portion to be financed with equity, potential grants and debt capital.	ESPI Current Report No. 19/2023 of May 12, 2023
May 26, 2023	The Issuer accepted an order for the delivery of a printing module for industrial integration. The ordering partner is one of the key global manufacturers of industrial machines, including machines for the semiconductor and display industries, member of the NASDAQ 100 index. Acceptance of the order means delivery of the XTPL technology to build a prototype of an industrial device with a wide range of applications among the partner's clients.	ESPI Current Report No. 21/2023 of May 26, 2023
May 29, 2023	The Company received information that it was granted patent by the Intellectual Property Office of Vietnam for its method of forming lines <1 micrometer wide using the XTPL-developed silver nanoink (patent application: "Bottom-up method for forming wire structures upon a substrate").	ESPI Current Report No. 22/2023 of June 1, 2023



Date	Event	Current Report
June 1, 2023	The Issuer confirmed the acceptance of the order for the delivery of a printing module for industrial integration. The ordering partner is HB Technology, listed on KOSDAQ 078150.KQ in South Korea, a manufacturer of devices for testing and repairing devices for the largest global display makers. HB Technology's clients are the world's leading manufacturers, including Samsung Display Corporation and Beijing BOE Display Technology. This is the third transaction for the sale of the printing module for industrial integration.	ESPI Current Report No. 23/2023 of June 1, 2023
June 12, 2023	On June 12, 2023, the Extraordinary General Meeting of the Company was held to increase the share capital and issue up to 275,000 ordinary bearer shares (the Issuer reported the calling the meeting on May 14, 2023 via ESPI Current Report No. 20/2023). After the meeting, the Issuer's Management Board advised about the resolutions adopted during the EGM and about the shareholders who held at least 5% of the votes at the meeting.	ESPI Current Report No. 25/2023 and 26/2023 of June 12, 2023
June 22, 2023	<p>With reference to ESPI Current Report No. 27/2023 of June 12, 2023, the Issuer's Management Board reported that June 22, 2023 saw completion of the bookbuilding, conducted by Trigon Dom Maklerski S.A. for maximum 275,000 series V ordinary bearer shares of the Company issued under EGM Resolution No. 03/06/2023 of June 12, 2023 on: increasing the Company's share capital through the issue of Series V ordinary bearer shares (disapplying all preemption rights of the existing shareholders); amending the Company's Articles of Association; and applying for the admission and introduction of these shares to trading on the regulated market.</p> <p>Consequently, on June 22, 2023, after considering the results of the bookbuilding process and the recommendations of Trigon Dom Maklerski S.A., the Company's Management Board set the issue price of series V shares at PLN 133 per share and decided to submit offers to investors to acquire those shares at the agreed issue price in the maximum number of shares provided for in the Issue Resolution, i.e. in relation to 275,000 series V shares.</p>	ESPI Current Report No. 30/2023 of June 22, 2023
June 22, 2023	The Company confirmed the order placed by the Electrical & Computer Engineering Department at Northeastern University in Boston. The device will be used by the BEST (Bendable Electronics and Sustainable Technologies) research group, led by Professor Ravinder Dahiya, in research on bendable electronics and "electronic skin", and their applications in robotics, wearables and augmented/ virtual reality, among other fields. Professor Ravinder	ESPI Current Report No. 28/2023 of June 22, 2023

Date	Event	Current Report
	<p>Dahiya previously led the BEST research group at the University of Glasgow, where research was conducted on the Delta Printing System, one of the first four devices installed in the world at that time. After moving to Northeastern University in Boston, Professor Dahiya decided to continue his research using, among others, the device supplied by the Company. This was a second transaction to sell the Delta Printing System to the US market, and first sale to a research institute.</p>	
<p>June 22, 2023</p>	<p>The Company confirmed the order placed by a client for the delivery of the Delta Printing System. XTPL is to deliver its device to the Germany-based laboratory of the German-American consortium developing hardware and software for advanced data analysis and machine learning. The XTPL Delta Printing System device will be used to prototype a new generation of processors based on opto-electronic solutions, whose innovative design has the potential to significantly reduce size and increase computing power, while enabling advanced AI processing. The prototype's success may contribute to the XTPL technology being used in the production of the client's highly innovative products.</p>	<p>ESPI Current Report No. 31/2023 of June 23, 2023</p>
<p>June 30, 2023</p>	<p>On June 30, 2023, the Company's Extraordinary General Meeting took place. The meeting was convened on June 3, 2023 (ESPI Current Report No. 24/2023), and then on June 22, 2023, the Issuer supplemented the documentation with an independent auditor's report on the assessment of XTPL's 2022 Remuneration Report (ESPI Current Report No. 29/2023).</p> <p>After the meeting, the Issuer published the list of shareholders holding at least 5% of the votes at the General Meeting (ESPI Current Report No. 34/2023) and the resolutions adopted during the meeting (ESPI Current Report No. 35/2023).</p>	<p>ESPI Current Report No. 34/2023 and 35/2023 of June 30, 2023</p>
<p>June 30, 2023</p>	<p>Due to the expiry of the term of office of the Supervisory Board, on June 30, 2023 the Annual General Meeting adopted a resolution determining the membership of the Supervisory Board of the new term of office at six persons, and appointed the following Supervisory Board for the new term:</p> <ol style="list-style-type: none"> <li>1. Wiesław Rożłucki – Supervisory Board Chairman</li> <li>2. Bartosz Wojciechowski – Deputy Chairman of the Supervisory Board</li> <li>3. Andrzej Domański – Deputy Chairman of the Supervisory Board</li> <li>4. Beata Turlejska – Supervisory Board Member</li> <li>5. Piotr Lembas – Supervisory Board Member</li> <li>6. Herbert Wirth – Supervisory Board Member.</li> </ol>	<p>ESPI Current Report No. 36/2023 of June 30, 2023</p>

Date	Event	Current Report
	In addition, on June 30, 2023, due to expiry of the current term of the Management Board, the Supervisory Board appointed the Management Board for a new term in the following composition: 1. Filip Granek – Management Board President 2. Jacek Olszański – Management Board Member.	

### 3.7.5. Industry events

In order to effectively promote its unique technology and products, the Company actively participates in numerous industry conferences that enjoy high reputation on an international scale. The technology solutions presented by the Company are highly appreciated by experts from different fields. As a result, XTPL receives numerous invitations to lectures on the latest technological achievements.

In H1 2023, the Company participated in seven industry events:

1. MEMS 2023, January 15-19, Munich, Germany, during which the Company presented the effects of its R&D, showcasing the unique nature of its UPD technology in the manufacture of advanced microelectromechanical systems (MEMS) and its innovative method of embedding them in integrated circuits with the use of the Delta Printing System as an alternative to electronic packaging.
2. LOPEC 2023, February 28–March 2, Munich, Germany, during which the Company presented its offer of conductive inks based on silver nanoparticles and the Delta Printing System for R&D in advanced microelectronics. The Company's offer aroused a major enthusiasm among visitors of the exhibition; in total, during the two-day show, the Company held more than 100 discussions with potential clients interested in its solutions.
3. THE ISRAELI CONFERENCE ON ADDITIVE MANUFACTURING: Research To Applications ICAM 2023, March 13, Kfar Maccabiah, Israel, during which the Company presented the latest achievements in the fabrication of microelectronic structures by means of the UPD technology. The event was important for the promotion of the Company's technologies and products on the Israeli market, which is currently one of the pioneers in the implementation of megatrends in electronics development.
4. TechBlick Additive Electronics in Semiconductor Packaging and PCBs, March 29–30, an online event, where the Company presented results of using its technology for advanced packaging. TechBlick events have a global reach and attract key players of the electronics industry.
5. Smart Systems Integration (SSI), March 28–30, Bruges, Belgium, where the possibility of printing on 3D structures was presented to representatives of Europe's most important semiconductor companies.
6. Rapid.Tech 3D exhibition, May 9–11, 2023, Erfurt, Germany, during which the Issuer made it to the finals of the 3D Pioneers Challenge and had the opportunity to present the UPD technology printing head to the additive technology community.

7. TechBlick Innovation Festival, June 22, 2023, with free online admission available to the general public, which attracted a lot of people from all over the world. A presentation of the Company's technology was watched by over 300 participants of the conference.

### **3.7.6. Investor events**

The Company attaches great importance to communication with capital market participants. In order to implement the corporate governance and communication standards and to ensure constant and equal access to information about the Company for all stakeholders, and to meet their needs, the Company undertakes numerous activities in the area of investor relations. Below is a description of the key events and activities in the first half of 2023 addressed to the capital market.

On April 27, 2023, two earnings calls took place with the participation of the Management Board of XTPL – first in Polish and then in English. During both videoconferences, the Company's Management Board presented the financial results for 2022 and the key events and achievements of the previous year.

Due to the publication of the quarterly report for the first quarter of 2023 (May 17, 2023), on May 18, 2023 the Issuer organized an earnings presentation. During that event, members of the Company's Management Board presented the Company's financial and operating results for the first quarter of 2023.

At the same time, in 2023, the Company took part in several important domestic and international conferences with the participation of investors and analysts. Those events are summarized below.

Investor conferences that took place in the Reporting Period:

1. Książęca Street 12, Warszawa, March 18, 2023
2. GPW Innovation Day, online, April 19–20, 2023
3. Equity Forum German Spring Conference, Frankfurt, May 15, 2023
4. ACATIS Investment KVG mbH Value-Konferenz, Frankfurt, June 2, 2023
5. Webinar with investors on the StockWatch.pl portal, online, June 13, 2023

In addition, the Company focuses on regular communication with the capital market, including through a constantly updated website with a separate investor relations section where current information materials are posted (press releases, presentations, newsletters, answers to frequently asked questions from investors), publication of short information from the life of XTPL in social media channels (LinkedIn), and publication of selected video materials on YouTube. Furthermore, the Company tries to provide fast and reliable answers to the questions received from individual investors. In order to facilitate contact with the Company, the "Contact" tab on the investor relations site contains contact details for individual investors, institutional investors, analysts and journalists.

### 3.7.7. Events occurring after the balance sheet date

Date	Event	Current Report
July 12, 2023	<p>With reference to ESPI Current Report No. 30/2023 of June 22, 2023 and ESPI Current Report No. 27/2023 of June 12, 2023 and earlier ones, the Issuer's Management Board reported that on July 12, 2023 the placement of the Issuer's series V shares had been finalized.</p> <p>On July 12, 2023, the Issuer's Management Board made a statement on the final determination of the share capital in the Company's Articles of Association to the effect that the Company's share capital is PLN 230,422.20 and is divided into 2,304,222 ordinary bearer shares with a nominal value of PLN 0.10 each.</p>	ESPI Current Report No. 37/2023 of July 12, 2023
July 24, 2023	<p>The Company confirmed the order placed by the CENIMAT i3N scientific research center in Portugal for the delivery of the Delta Printing System.</p> <p>The Delta Printing System will be used by scientists from the Advanced Functional Materials for Micro and Nanotechnologies (AFMMN) Group, which is one of three Research Teams at CENIMAT i3N in Portugal. The AFMMN Group is focused on semiconductor fabrication and analysis processes, and has extensive experience in developing materials for key enabling technologies. The efforts are focused on the properties of materials in the nanoscale for industries such as electronics and optoelectronics. The device is to be delivered by the end of 2023.</p> <p>CENIMAT i3N is a Portuguese scientific research center sponsored by the Ministry of Science, Technology and Higher Education, through the Foundation for Science and Technology. For many years now, it has been the world's leading center of engineering and materials science.</p>	ESPI Current Report No. 39/2023 of July 24, 2023
July 26, 2023	<p>The Company received information that the United States Patent and Trademark Office had granted it patent for the method of characterizing and optimizing ink flow in the printing head. The patent was granted in response to the patent application "Method of estimating an output diameter of a capillary tube, and related methods".</p> <p>The application procedure for this patent was initiated on June 8, 2020. This is also the date when patent protection started for the invention. The final formal requirement for obtaining the patent is to pay the patent fee by October 17, 2023. Should the requirement not be met, the Company will communicate this in a separate current report.</p>	ESPI Current Report No. 40/2023 of July 27, 2023

August 3, 2023	With reference to ESPI Current Report No. 37/2023 of July 12, 2023 and ESPI Current Report No. 26/2023 of June 12, 2023, the Company's Management Board reported that on August 3, 2023 the registry court had registered amendments in the Articles of Association of XTPL S.A. – § 5 of the Company's Articles of Association) in connection with Resolution No. 03/06/2023 of the Issuer's Extraordinary General Meeting of Shareholders of June 12, 2023 and the Management Board's statement of July 12, 2023 on the amount of share capital acquired and on determining the Company's share capital in the Articles of Association.	ESPI Current Report No. 41/2023 of August 3, 2023
August 3, 2023	On August 3, 2023, the Company received information about the conditional granting of a patent by the Japanese Patent Office for the printing apparatus used for the method of Ultra-Precise Deposition. The patent was granted in response to the patent application "Fluid printing apparatus". The final formal requirement for obtaining the patent is to pay the patent fee by August 17, 2023. Should the requirement not be met, the Company will communicate this in a separate current report. The patent protection will increase the value of the potential commercialization of the Company's technology with respect to the Issuer's technological solutions for the next generation electronics market. The reported event confirms continued delivery of the Company's strategy of building a patent cloud for its proprietary technology and products, which will contribute to building the Issuer's credibility among potential industrial clients.	ESPI Current Report No. 42/2023 of August 4, 2023
August 7, 2023	On August 7, 2023, the Issuer received a notification made by Filip Granek, PhD, under Article 69(1)(2) of the Act on Public Offering concerning reduction of his share in the total number of votes at the Issuer's General Meeting following the registration of the Issuer's share capital increase by the registry court in connection with the issue of the series V shares.	ESPI Current Report No. 43/2023 of August 7, 2023
August 16, 2023	On August 16, 2023, the Central Securities Depository of Poland ("KDPW") declared that it had entered into an agreement with the Company for the registration of 275,000 series V ordinary bearer shares of the Company ("Shares"). The shares will be registered in the securities depository operated by the KDPW, provided that they are introduced to trading on the regulated market operated by the Warsaw Stock Exchange. The shares will be registered under the existing ISIN code PLXTPL000018.	ESPI Current Report No. 44/2023 of August 17, 2023
August 18, 2023	On August 18, 2023, the Management Board of the Warsaw Stock Exchange S.A. ("WSE") adopted a resolution on the admission of 275,000 series V ordinary bearer shares of the Company ("Shares") to trading on the regulated market operated by the WSE ("Regulated Market") and on the conditional introduction of the	ESPI Current Report No. 45/2023 of August 21, 2023

	Shares to trading on the Regulated Market as of August 23 2023. The Shares were to be introduced to trading on the Regulated Market provided that on August 23, 2023 KDPW registered them in the securities depository under the ISIN code PLXTPL000018.	
August 21, 2023	On August 21, 2023, the Central Securities Depository of Poland announced that the date registration of 275,000 series V ordinary bearer shares of the Company marked with the ISIN code PLXTPL000018 in the securities register had been set to August 23, 2023.	ESPI Current Report No. 46/2023 of August 21, 2023
September 6, 2023	On September 6, 2023, the Company confirmed another order placed by Yi Xin (HK) Technology Co., Ltd, based in China [“Yi Xin”, “Distributor”] for the delivery of the Delta Printing System. The Company will deliver and commission the device in the first half of 2024.  The end buyer of the device will be a leading Chinese R&D center: Research Institute of Tsinghua University w Shenzhen, China [“End Client”]. The XTPL device will used in work on conductive structures for heterogeneous integration of 3D chips.	ESPI Current Report No. 47/2023 of September 6, 2023
September 8, 2023	On September 8, 2023, the Issuer and Detekt Technology Inc. with its registered office in Taiwan [“Detekt”] signed an agreement for the non-exclusive distribution of the Issuer's technological solutions [“Agreement”].  Under the Agreement, Detekt will act as a distributor of XTPL’s technological solutions in Taiwan. The purpose of the cooperation is to support the Issuer in expanding the range of applications for the Company’s technology and products at technological corporations and R&D centers and scientific institutions. The partnership will also increase awareness and visibility of the Issuer's solutions among global players in semiconductor and display technologies market.	ESPI Current Report No. 48/2023 of September 11, 2023

Moreover, after the Balance Sheet Date, the Issuer participated in the following industry events:

1. EPoSS Association Annual Forum, July 4, 2023, Silicon Austria Labs, Villach, Austria
2. The Tech Talk, July 6, 2023, Munich, Germany
3. IEEE FLEPS 2023, July 9, 2023, Northeastern University Boston, Massachusetts, United States of America

### **3.7.8. Preliminary estimates of revenues from the sale of products and services for Q2 and H1 2023**

On July 18, 2023 (after the Reporting Period), the Issuer published the following information on its preliminary estimated consolidated revenues from the sale of products and services in the second quarter and the first half of 2023 (ESPI Current Report No. 38/2023).

1. Estimated consolidated revenues from the sale of the Company's products and services in the second quarter of 2023 were PLN 2,590 thousand. In the same period of the previous year, the revenues

were PLN 2,040 thousand. This figure does not include proceeds on account of grants related to the Issuer's implementation of research and development projects.

2. **Estimated consolidated revenues from the sale of the Company's products and services in the first half of 2023 were** PLN 5,565 thousand compared to PLN 2,970 thousand posted in the same period last year. This figure does not include proceeds on account of grants related to the Issuer's implementation of research and development projects.
3. The value of grant proceeds obtained by the Company in the second quarter of in 2023 was PLN 400 thousand compared to PLN 1,292 thousand in the second quarter of 2022. On a year-to-date basis, this figure stands at PLN 1,400 thousand compared to PLN 2,377 thousand in H1 2022. The Issuer's Management Board points out that in accordance with the rules for accounting for those grants, part of the above proceeds will be included in the Company's income statement for H1 2023, while the remainder will be recognized in the balance sheet as deferred income.
4. **The estimated value of the Company's cash and cash equivalents as at June 30, 2023** was PLN 2,630 thousand compared to PLN 3,794 thousand as at March 31, 2023. This means that cash and cash equivalents decreased by approx. PLN 1,160 thousand. For comparison, in the corresponding period of 2022, cash and cash equivalents decreased by PLN 240 thousand.

The increase in the Issuer's estimated revenues from the sale of products and services, as presented above, results from progress in the commercialization of the Company's technological solutions in all business lines (Delta Printing System printing devices, conductive inks and consumables for the DPS, and industrial projects). The change in cash is mainly due to the higher working capital requirements related to the growing sales. The value of grant proceeds obtained in the second quarter of 2023 results from the schedule of works under the projects supported with the grants.



### 3.8. FINANCIAL PERFORMANCE

#### 3.8.1. Principles for drafting the semi-annual financial statements

##### 3.8.1.1. General information and basis of preparation

The financial statements of XTPL Group (standalone and consolidated financial statements) cover the period of six months ended June 30, 2023, and the comparative data for the period of six months ended June 30, 2022. They were prepared using the historical cost convention. The financial statements have been prepared on the assumption that the Company will continue in operation for at least a year from the Report Date.

At the date of approval of these financial statements, the Management Board has not identified any circumstances which would point to a risk to continuity of operations in the above period.

The financial statements do not contain all the information and disclosures required of annual financial statements and should be read jointly with the annual financial statements of XTPL S.A. for 2022 as published on April 26, 2023.

The financial statements have been prepared in accordance with the International Accounting Standard (“IAS”) 34 Interim Financial Reporting and in accordance with the Finance Minister’s Ordinance on current and financial information.

##### 3.8.1.2. Currency of the financial statements

The functional currency and reporting currency of the financial statements is the Polish zloty (PLN), and the data contained in the financial statements are presented in thousands of Polish zlotys.

##### 3.8.1.3. Exchange rates used in the financial statements

	2023		2022	
	January–June		January – June/ December 2022	
exchange rates used in the financial statements	EUR	USD	EUR	USD
for balance sheet items	4.4503	4.1066	4.6899	4.4018
for profit or loss and cash flow items	4.6130	4.2711	4.6427	4.2744

##### 3.8.1.4. Description of significant accounting principles

For the purpose of preparing the semi-annual condensed financial statements, the same accounting principles have been used as in the last annual financial statements for 2022 published on April 26, 2023.

There were no changes in the accounting policies or significant changes in estimates in the Reporting Period.

### **3.8.2. Extraordinary factors and events having a significant impact on the condensed financial statements**

None in the Reporting Period.

### **3.8.3. Factors which may affect the results in the subsequent quarters**

Factors which may affect the Company's and the Group's operations and results in the following quarters:

- Signing commercial contracts, and progress of work on paid evaluation initiatives, licensing or joint-development agreements in relation to the Issuer's technology;
- Ability to protect and safeguard intellectual and industrial property, including the number and scope of submitted patent applications;
- Favorable trends in the electronics industry;
- Acquiring additional financing in the form of grants and subsidies supporting the Issuer's research and development activities;
- Economic consequences of the war in Ukraine;
- Situation in financial markets and development of the coronavirus pandemic.

### **3.8.4. Achievement of financial forecasts**

The Management Board's position regarding the possibility of achieving the previously published performance forecasts for a given year, in the light of the results presented in the Report in relation to the forecast results, i.e. preliminary estimates of consolidated revenues from the sale of products and services achieved by the Company in Q2 2023 and H1 2023, published in ESPI Current Report No. 38/2023 of July 18, 2023:

The preliminary data disclosed to the public were substantially in line with the actual data.

## **3.9. OTHER INFORMATION**

### **3.9.1. Impact of the SARS-CoV-2 pandemic on the Company's and Group's operations**

As a result of the COVID-19 pandemic and due to administrative constraints, the Company developed a number of procedures that are triggered depending on the risk level. The Company is well prepared for remote work. The XTPL team members are provided with laptops and company phones with internet access. They can use the GSuite apps to smoothly continue work from home. Teamwork tools are also used to ensure work efficiency. Technological work is continued at the Company's headquarters while maintaining all sanitary requirements announced by state institutions.

The procedures do not inhibit business development. XTPL conducts proactive sales support activities, also through a network of distributors. All deliveries and installations of devices at clients' sites are carried out in line with the requirements in force in the target country.

#### 3.9.1.1. **Impact of the war in Ukraine on the Company's and Group's operations**

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The war in Ukraine did not change XTPL's operating model. The Company has not been affected by any impact of the conflict on the printed electronics market. In addition, the Company:

- Is not dependent on any raw material/ component supplies from the regions of Russia, Belarus or Ukraine;
- Does not conduct sales activities in the above markets; Likewise, the Company's business strategy does not envisage sales to those countries going forward;
- Does not have any on-site or remote collaborators from those countries;
- Is exporter of goods denominated mainly in EUR, so it is not exposed to negative effects of depreciation of the zloty;
- Has not received any information from business partners from countries other than those mentioned above about their plans to introduce changes in their business activities that could adversely affect XTPL.

The Company has identified the risk that the war might impact its operations indirectly by affecting the global economy in terms of:

- Reduced availability of raw materials and the related lower availability of materials and components;
- Supply chain difficulties due to limitations in air transport.

The Company and its employees undertook a number of activities to help Ukrainian war refugees:

- Introduced an additional day off per month for volunteering for all employees
- Published job ads on a portal dedicated to Ukrainian refugees
- Collected toys and essential items for children from an Ukrainian orphanage who came to Poland
- Offered accommodation to Ukrainian refugees
- Sewed clothes for children from Ukraine
- Helped in sorting donations at local help centers
- Donated computer equipment to the crisis management center that helps refugees
- Helped in transporting Ukrainian citizens from the railway station to their place of accommodation
- Provided material support to Ukrainian soldiers
- Paid contributions to verified fundraisers.

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#### 3.9.1.2. **Agreements that in the future might affect the proportion of shareholdings**

In April 2019, the shareholders of XTPL S.A. adopted an incentive scheme for key employees and collaborators of the Group. The scheme may potentially bring about changes in the proportions of shares held by shareholders. The resolution introducing the scheme conditionally increased the Company's share capital, excluding preemptive rights of existing shareholders, by no more than PLN 18,262.20 through the issue of no

more than 182,622 series R ordinary bearer shares with a nominal value of PLN 0.10 each. The series R Shares may be subscribed for by holders of Series A registered subscription warrants. Under the resolution on the issue of series A subscription warrants with exclusion of preemptive rights, maximum 182,622 warrants, at a price of PLN 165.84, may be taken up. The incentive scheme covers the years 2019–2021. The scheme participants will have the right to exercise the warrants by April 23, 2029. After this date, the warrants will expire.

#### 3.9.1.3. **Branches**

Not applicable. Neither the Parent Company nor its Subsidiary have any branches.

#### 3.9.1.4. **Non-arms length transactions with related entities**

Not applicable. As part of the group, no transaction was made with any related party on non-commercial terms.

#### 3.9.1.5. **Proceedings before courts and other bodies**

No significant judicial, arbitration or administrative proceedings are pending in relation to liabilities or receivables of the Issuer or its Subsidiaries.

#### 3.9.1.6. **Guarantees given**

Not applicable. Neither the Issuer nor its Subsidiary provided any guarantees in the Reporting Period.

#### 3.9.1.7. **Explanation of seasonality or business cycles**

Not applicable. The Group's activity is not subject to seasonality or business cycles.

#### 3.9.1.8. **Acquisition of own shares**

Not applicable. None in the Reporting Period.

#### 3.9.1.9. **Financial instruments**

Not applicable. Neither the Parent Company nor its Subsidiaries use financial instruments in relation to the price risk, credit risk, risk of material disruption of cash flows or financial liquidity risk.

### 3.10. **Description of key threats and risks until the end of the financial year**

#### 3.10.1. **Risk factors and threats related to the Company's and the Group's business environment**

▪  
3.10.1.1. **Macroeconomic risk**

The Company's and the Group's activity depends on the macroeconomic situation in the markets in which the Company plans to start the sale of its products and services, primarily in the United States, Asia and Western Europe. Profitability of the Company's operations will depend, inter alia, on the economic growth, consumption and investment level (particularly in the electronics sector), fiscal and monetary policy, inflation, and especially the level of expenditures on consumer electronics in those countries. All these factors may have an impact on the Company's and the Group's financial results, and thus may also affect implementation of the Company's development strategy.

*The Issuer's exposure to the risk: low*

3.10.1.2. **Currency risk**

Due to the fact that the Company's and the Group's clients are international entities, most of the Company's revenues related to the commercialization of technology are settled in foreign currencies (mainly the euro and the US dollar). At the same time, as the Company is based in Poland, most of its ongoing expenses will be settled in the Polish zloty. As a result, the Company may be exposed to a significant FX risk. Volatility of exchange rates may primarily cause changes in the value of the Company's revenues and receivables after their conversion into PLN.

Despite the significant weakening of the Polish currency related to the outbreak of the war in Ukraine,, the Company and the Group do not see currency risk as a significant threat to the expected level of their operating profitability. The weakening of the Polish zloty strengthens the cash position of the Company as an exporter. A significant portion of purchases of materials and components for the production of printers is settled in euro. As a result, revenues from foreign currency sales constitute a natural hedge against exchange rate movements. As and when required, the Company and the Group will resort to FX risk management instruments available in the banking market.

*The Issuer's exposure to the risk: low*

3.10.1.3. **New technology risk**

The market in which the Company and the Group operate is characterized by rapid development of technologies. For this reason, the development of the Company's and the Group's operations entails constant tracking and analysis of new market trends and identification of emerging potential competitors and technological solutions they implement. There is a risk that if the current market trends change, the Company and the Group will be forced to look for new applications for its technology outside of what it previously saw at its core business or to incur expenditures to make its existing solutions more competitive. Likewise, the Company and the Group cannot rule out that in the future a new technology will be developed which will make the solutions offered by the Company and the Group unattractive for potential clients. Materialization of this risk will mean additional costs, which will adversely affect profitability of the Company's and the Group's

operations. In addition, the need to perform additional work may delay the moment of commercialization of the Company's and the Group's product.

*The Issuer's exposure to the risk: medium*

#### 3.10.1.4. **Competitive risk**

The Company and the Group operate in a very attractive market of modern technologies characterized by a steadily growing demand. In this market, there is a number of players whose experience and capital resources are higher than those of the Company. As the market is changing fast, there is a risk of a new entity emerging whose offer will be more innovative than the Company's and the Group's offer. A competitive edge may be obtained by implementing innovative, unique solutions that are attractive for prospective clients in utility and economic terms.

At present, the Company is not aware of any solutions that would technically offer better parameters for the ultra-precise printing of nanomaterials. However, it cannot be ruled out that a new entity or a solution will emerge that will surpass the Company's technology in some or all key parameters. There is also a risk that the Company and the Group will be unable to respond quickly or effectively to the changing market environment, and consequently the solutions offered by the Company and the Group will be considered less competitive. Materialization of this risk may have a negative impact on the sale of the Company's and the Group's products and services and, in consequence, on its trading performance.

*The Issuer's exposure to the risk: medium*

#### 3.10.1.5. **Risk related to the development of the SARS-CoV-2 pandemic**

Due to the market in which the Company operates, the situation related to the coronavirus threat fundamentally does not affect the Issuer's operational activity. The Company has developed a number of procedures depending on the level of risk and applies them as appropriate depending on the situation. Office workers may perform their duties remotely (they are provided with a company phone with Internet access and a laptop). Technology staff work in compliance with all the standards announced by state authorities. Some technology staff are involved in the development of new grant applications, and therefore may also partly work from home. As a rule, all meetings take place using video- or teleconferencing. The planned operations related to the shipment of products take place in conformity with the requirements in force in the country of destination.

*The Issuer's exposure to the risk: low*

#### 3.10.1.6. **Sources of supply**

The Company commercializes and develops its proprietary nanoprinting technology. Due to the advancement of the technology, the Company makes use of a wide range of products and services available in the market,

the key ones being measurement, research, conductive nanoinks formulation development and patent protection services as well as services related to rental of specialist equipment and laboratories. The great diversity and variability of the Company's R&D work is reflected in the number of sources of supply it uses. As a result, in 2022, the Company reached a 56% threshold of purchases from one supplier – provider of research services and lessor of laboratories and office space (100%). At the same time, the Company steadily increases its laboratory equipment and limits the use of outsourced measurement and research services.

In the manufacturing process, the Company sources materials and chemical reagents, which are the key inputs for the production of highly conductive inks offered by XTPL S.A. and uses suppliers of components and materials in the process of making the Delta Printing System devices.

The chemicals suppliers base is highly fragmented. No supplier exceeds 20% of total purchases in this category. In addition, there are many high-quality materials available in the market and there is no risk of dependence on any single source of supply. Importantly, the vast majority of chemicals are purchased in the domestic market, so potential problems with global supply chains have only limited impact on the Company.

In terms of materials and components for the production of printers, one supplier reached 32% of the total value of purchases in this category. The other suppliers do not exceed 15% of the total turnover. The Company constantly forges relationships with new entities and builds a base of alternative suppliers.

*The Issuer's exposure to the risk: medium*

### **3.10.2. Risk factors related to the Company's and the Group's operations**

#### **3.10.2.1. Risk related to the technology commercialization process**

The Company's and the Group's business model provides for a gradual commercialization of the technology of printing ultra-thin conductive lines for various applications in printed electronics. At present, the commercialization process already covers printing devices and nanoinks. In terms of industrial implementations on clients' production lines, the target business model is that the Company and the Group will commercialize their technological solutions through licensing or will manage the whole value chain, i.e. manufacture, product marketing, distribution and provision of specialized services tailored to the client's needs. The choice of the commercialization model will depend on the results of negotiations with the partner, specific nature of the particular application field and the Issuer's assessment regarding effectiveness of each of the possible commercialization methods in that field.

Currently, the Company is involved in nine industrial implementation projects, which confirms the market need for solutions offered by the XTPL technology. In addition, the Company signed and carries out an agreement with Nano Dimension Ltd. to develop a next generation conductive nanoink for industrial applications in the firm's products designed for the production of PCBs. This agreement is the first agreement signed with an industrial partner and is a milestone in the Company's development.

However, there is a risk that introduction of devices into individual markets will not be in line with the current expectations due to, for example, a lack of or insufficient demand in target countries, misidentification of potential clients' needs, misidentification of legal conditions, incomplete adaptation of the Company's products to the requirements of foreign markets, an ineffective promotional campaign or an unexpected

emergence of a competitor. Occurrence of the above events may stifle the Company's and the Group's growth dynamics, adversely impacting their operations and financial position.

*The Issuer's exposure to the risk: high*

#### 3.10.2.2. **Risk of failure to achieve revenues**

At the present stage of the Company's development, this risk should be considered negligible. In the financial year, the Company significantly increased its sales revenues compared to the previous year. The main stream of those revenues was the sale of printing devices. The Company intends to develop this product group rapidly, also by building its distribution network (external distributors) all over the world. At the same time, the Company steadily increases its revenues from the sale of inks and other consumables for printers. Furthermore, the Company has an agreement with an industrial entity to develop a next generation conductive nanoink. In 2022, the first revenues were recognized on this account.

*The Issuer's exposure to the risk: low*

#### 3.10.2.3. **Risk of low product quality**

The Company's and the Group's business model providing for a gradual introduction of the technology of printing ultra-thin conductive lines for various applications in printed electronics gives rise to a risk of defects, insufficient product quality or unsatisfactory performance of the technology at the initial phase of its commercialization. However, the emergence of unforeseen defects and problems should be taken into account. Such situations may result in a negative first reception of the Company's and the Group's products and, consequently might dampen interest in and demand for the product. As a result, the Company and the Group might not receive revenues in the expected amount.

*The Issuer's exposure to the risk: high*

#### 3.10.2.4. **Risk related to the business development model and the failure to deliver the Company's and the Group's strategy**

The goal of the business model is commercialization of the Company's ultra-precise technology of printing a wide range of nanomaterials. The Company is already commercializing its first products – technology carriers. It also conducts nine projects related to the implementation of technologies on the production lines of partners, but in this area with the greatest potential the Company does not yet implement a repeatable business model. Due to the geographic and economic conditions in the market, the Company will develop its business presence mainly in the United States, Asia and Western Europe. The Company intends to build its market position through organic growth, primarily based on further development of its technology. Due to a number of factors, the Company is unable to guarantee in full that its business development model will work. The Company's future in the broadly understood printed electronics market depends on its ability to create



and implement a successful long-term development strategy and to continue to develop its technology. The risk of making bad decisions resulting from improper assessment of the situation or the Company's inability to adapt to changing market conditions, incorrect strategic assumptions, including in relation to the developed technology and the adopted commercialization plan and the degree of demand from potential clients, may mean that the business development model will not be effective and the future financial results might be lower than currently expected.

*The Issuer's exposure to the risk: high*

#### 3.10.2.5. **Risk related to the difficulty with acquiring experienced and specialized employees**

The high level of technological advancement of the Company's research leads to a constant increase in the requirements regarding skills and experience of employees. Next to technology, the engineering and scientific staff is the Company's most valuable asset. The pace and quality of the Company's R&D is directly related to the skills of specialists who form the R&D team. The Company employs engineers from the fields of chemistry, physics, electronics, mechanics, material engineering, programming and numerical simulations. Nearly in all these fields, the number of specialists available for hiring is not high. As regards acquisition of the best specialists, the Company competes with firms both in Poland and abroad.

As the Company expands the size of its operations, this factor may be of particular importance in the future as it might limit the development potential. Difficulties in sourcing employees may delay work or force the Company to abandon certain projects.

*The Issuer's exposure to the risk: medium*

#### 3.10.2.6. **Risk of losing key team members**

The Company's activity is based on a narrow team of people with relevant know-how who pool competencies in engineering and technical, financial management and strategic management of the Company. For this reason, losing key people may adversely affect the Company's further business, its financial, property and economic condition as well as its development prospects as it may impair the Company's potential to sell its products, develop its technology, win new contracts and properly manage already existing contracts.

Most of the Company's personnel are people employed in operational roles. They do tasks which require expertise, skill and education. The Company is exposed to the risk of losing some of its operational staff, which might weaken the organizational foundations of the Company's business. These situations might result in the Company's stability being undermined and force it to raise remuneration levels in order to retain employees. As a result, it may affect the Company's operating costs.

*The Issuer's exposure to the risk: medium*

#### 3.10.2.7. **Risk of dependence on future counterparties**

Due to the specific nature of industrial implementation projects (with high contract values), commercialization of the first projects will result in major dependence on individual clients. Hence, the Company conducts projects with many partners in various markets and application fields.

The sale of printing devices and consumables does not pose such a risk due to the one-sided nature of transactions in the case of printers and the fragmented market in the case of consumables.

Due to the fact that the Company supplies advanced technical equipment, there is a risk of dependence on suppliers of materials and components. The Company tries to diversify supply sources, forges partnerships and builds a base of alternative suppliers, but it should be kept in mind that with such technically advanced devices, the replacement of components is also subject to risk in terms of efficiency of the manufactured devices.

*The Issuer's exposure to the risk: medium*

#### 3.10.2.8. **Risk of potential disclosure of confidential information on technology**

Implementation of the Company's strategy depends, inter alia, on the fact that the holders of confidential information, particularly that concerning development and technological processes related to the ultra-precise printing technology. There is a risk that sensitive information will be divulged by persons connected with the Company, which may result in the information being used by competitors, despite the intellectual property protection measures used by the Company.

The indicated risk factor may have a negative impact on the Company's business, financial position, development prospects, results and share price.

*The Issuer's exposure to the risk: low*

#### 3.10.2.9. **Risk of intellectual property infringement**

The Company operates in an area where regulations concerning industrial and intellectual property rights and their protection are of significant importance. At present, there are no proceedings under way regarding infringement of any industrial or intellectual property rights in which the Company would be involved. The Company intends to conduct its business in such a way as not to infringe any third party rights in this respect. However, it cannot be ruled out that third parties would bring claims against the Company regarding infringement of industrial and intellectual property rights by the Company. Even if unwarranted, such claims might adversely affect the schedule of the Company's strategy implementation, and the defense against such claims may involve significant costs, which may adversely impact the Company's financial results. In addition, during work on its own patent applications, the Company carefully reviews the available literature and patents known at present. However, there is a risk of infringement of intellectual property rights related to patents that have been submitted but not published yet.

Cooperation with external partners gives rise to similar risks. Formally unauthorized entities might attempt to use the intellectual property of XTPL by either violating or attempting to circumvent the patent application. The circumstances described above may have a material adverse effect on the Company's development prospects, results and financial position.

*The Issuer's exposure to the risk: medium*

3.10.2.10. **Risk of technology scaling**

Due to the fact that the technology underlying the printing process developed by XTPL is based on highly innovative solutions, there is a risk that an increase in its use from laboratory to industrial scale might end up unsuccessfully.

This risk may materialize due to difficulties with obtaining technology parameters in industrial production that would be equally stable as those obtained in the laboratory. In addition, there is a risk that the technology developed may not be sufficiently effective for certain production processes in industry (e.g. due to a failure to achieve satisfactory production process efficiency).

*The Issuer's exposure to the risk: high*

3.10.2.11. **Risk of a failure to reach the target clients and achieve sales plans**

XTPL clients will include, in particular, large manufacturers of devices for the fabrication of electronics. They have long communication and decision-making channels. There is a risk that a proposition from XTPL, as a company with a short market history, will be assessed as not reliable enough. This may delay delivery of the Company's sales targets or indeed lead to a failure to acquire a targeted client. However, an increase in sales, especially the sales of printing devices, is accompanied by a steady increase in awareness of the XTPL technology, both among direct buyers, including research institutes, and indirect ones, such as industrial partners that research institutes cooperate with. In addition, the Company itself has established a number of relationships with industrial partners and is now working with them on nine projects.

*The Issuer's exposure to the risk: medium*

3.10.2.12. **Risk of emergence of a competitive technological solution**

New technological solutions that are in competition against XTPL are constantly being developed in the global technology market. A comparison of the parameters of the currently available solutions with the parameters achieved in the XTPL technology shows, in the Company's opinion, that competitive technologies offer solutions with weaker parameters and oftentimes higher production costs compared with what is expected to be achieved by the industrial XTPL solution. The Company has undertaken measures designed to cover its technology with extensive patent protection. As at the report date, the Company's competitive risk can be described as low, as the developed solutions are less effective than those on which the Company is working at present. However, it is not possible to rule out the possibility that a more technologically advanced or more cost-effective solution might emerge in the market. There is also a risk that competitors might significantly increase their expenditures to promote available solutions. These risks may materially affect the Company's development outlook.

*The Issuer's exposure to the risk: medium*

3.10.2.13. **Risk of loss of financial liquidity and access to financing**

As at the Report Date, the Company's revenues from the sale of products and services, supported by grant proceeds, are sufficient to secure its operating activities. However, it should be noted that except for nanoink sales, the Company has not yet achieved stable, recurring income.

There is also a risk of financing the operations when the business is taken to an industrial scale. However, the possibility of obtaining financing from several different sources should be taken into account, i.e. debt financing, grant projects and equity financing (profits and new share issues).

*The Issuer's exposure to the risk: medium*

3.10.2.14. **Risk of not receiving grants and subsidies**

Grants and subsidies are the second source (next to share issues) of financing the Company's research and development. There is a risk of not receiving adequate grants and subsidies, which may delay research and development.

In the past, the Company entered into a grant agreement with NCBR whereby NCBR is authorized to terminate the financing in the cases enumerated in the agreement, including when (i) the Issuer refuses to undergo or hinders inspections; (ii) the Issuer has made legal and organizational changes that jeopardize the performance of the agreement or fails to inform the NCBR of its intention to make such changes; (iii) the NCBR identifies gaps in the submitted documentation on the environmental impact of the project, and such gaps are not eliminated by a stated deadline; (iv) the beneficiary fails to comply with disclosure obligations during implementation and durability period of the project; (v) irregularities, listed directly in the agreement, occur in delivery of the project. Therefore, there is a risk that NCBR might claim reimbursement of the grant provided to the Company, in whole or in part, which may affect the financial position of the Company.

*The Issuer's exposure to the risk: low*

3.10.2.15. **Risk of implementation of in-house technologies by the Company's potential clients**

An important group of potential buyers of the technology developed by the Companies are global producers of electronic components (e.g. displays). There is a risk that these entities, which have significant technical and organizational resources, may develop their in-house nanoprinting solutions, and consequently will not be interested in the product offered by the Company.

*The Issuer's exposure to the risk: high*

3.10.2.16. **Risk of unforeseen events**

The Company is exposed to the risk of extraordinary events, such as technical failures (e.g. of electrical networks, either internal or external), natural disasters, acts of war, etc. These events might impair the effectiveness of or disrupt the Company's operations. In such circumstances, the Company may be exposed to unforeseen costs.

*The Issuer's exposure to the risk: low*

3.10.2.17. **Human factor risk**

In its production activity, the Company works with people employed under employment contracts and other civil law contracts. Actions performed by these persons as part of their work may lead to errors caused by improper performance of their duties. Such actions may be intentional or unintentional and may lead to disruptions and delays in the commercialization process.

*The Issuer's exposure to the risk: medium*

3.10.2.18. **Risk of failure of the equipment used in the Company's and the Group's operations**

In its operations, the Company relies on properly working specialist equipment. There is a risk that in the event of a serious equipment failure which cannot be addressed immediately, the Company may be forced to temporarily suspend some or all of its activities until the failure is removed. Equipment failures may also lead to a loss of the data used for developing the Company's product. An interruption in business or loss of key data for a particular project may result in the Company being unable to perform its obligations under existing contracts or cause a loss of these contracts, which may adversely affect the Company's financial performance.

*The Issuer's exposure to the risk: low*

3.10.2.19. **Risk of insufficient insurance coverage**

The Company enters into insurance contracts in the course of its activity. However, it can not be ruled out that insurance risks will materialize in the Company's activity that will go beyond the scope of insurance coverage, or unforeseen events occur that are out of scope of the existing insurance policies. Such events may have an adverse impact on the Company's trading performance.

*The Issuer's exposure to the risk: low*

3.10.2.20. **Risk of court and administrative proceedings**

According to the available information, no court or administrative proceedings are pending against the Company that would have a significant impact on its operations. However, the Company's future sales activity will give rise to potential risks associated with possible customer claims in relation to the products sold. The Company also enters into commercial contracts with external entities whereby both parties are required to provide specified service/ consideration. This in turn gives rise to a risk of disputes and claims arising from

such contracts. These disputes or claims may adversely affect the Company's reputation and, consequently, its financial results.

*The Issuer's exposure to the risk: low*

3.10.2.21. **Risk of related-party transactions**

The Company enters into transactions with its related parties. Where competent tax authorities question the methods of how the Company has determined market conditions for related-party transactions, this may have negative tax implications for the Company, potentially causing a material adverse effect on its business, financial position and results.

*The Issuer's exposure to the risk: low*

3.10.2.22. **Risk of intellectual property rights and application patents**

The Company's technology may be the basis for other entities to develop derivative or related technologies. There is a risk that such entities will decide to submit application patents based on the Company's technology. As a result, the Company, as the holder of the underlying patent, will have to cooperate with a third party, as the application patent holder, to ensure commercial implementation of a particular technology. In terms of intellectual property rights, the Company uses works created by persons employed under employment contracts.

*The Issuer's exposure to the risk: low*

3.10.2.23. **Risk related to commercialization agreements**

Due to the specific nature of its operations, the Company may use various types of commercialization agreements (license agreements, JDAs, product sale agreements, joint venture agreements). However, it is not possible to rule out the market risk related to a failure to find a partner interested in purchase of the Company's products or commercialization. Market risk is also affected by changes in potential clients' strategies, changes resulting from movements in market trends and inability to reach decision makers. In addition, account should be taken of the risk of default by a contractual partner or the risk of the Issuer's failure to abide by the terms of the contract due to materialization of any of the risks described above. Should any of these circumstances occur, this may adversely affect the Issuer's operations, financial results and/or development prospects.

The Issuer's exposure to the risk: medium

**3.11. Other information that in the Issuer's opinion is important for the assessment of its personnel, property and financial position, financial results and their changes, as well as information that is important for assessing the Issuer's ability to meet its obligations**

The Issuer has included all relevant information in the appropriate sections of the Report.

## Shareholding structure

## 4. SHAREHOLDING STRUCTURE

### 4.1. Significant shareholdings

The shareholding structure as at the Balance Sheet Date was as follows (shareholders holding at least 5% of the total number of votes at the General Meeting):

Ref.	Shareholder	Number of shares held	% of all shares	Number of votes	% of all votes
1.	Filip Granek, PhD	326,998	16.11	326,998	16.11
2.	Deutsche Balaton Group*	246,870	12.17	246,870	12.17
3.	ACATIS Investment	195,663	9.64	195,663	9.64
4.	Pankiewicz Venture Sp. k.	188,564	9.29	188,564	9.29
5.	Sebastian Młodziński	150,000	7.39	150,000	7.39
6.	Others	921,127	45.39	921,127	45.39
	<b>TOTAL</b>	<b>2,029,222</b>	<b>100.00%</b>	<b>2,029,222</b>	<b>100.00%</b>

\* Deutsche Balaton AG and Heidelberger Beteiligungsholding AG

As at the Report Date, the shareholding structure was as follows (shareholders holding at least 5% of the total number of votes at the General Meeting):

Ref.	Shareholder	Number of shares held	% of all shares	Number of votes	% of all votes
1.	Filip Granek, PhD	328,498	14.26	328,498	14.26
2.	Deutsche Balaton Group*	280,370	12.17	280,370	12.17
3.	ACATIS Investment	222,179	9.64	222,179	9.64
4.	Pankiewicz Venture Sp. k.	188,564	8.18	188,564	8.18
5.	Sebastian Młodziński	150,000	6.51	150,000	6.51
6.	Others	1,134,611	49.24	1,134,611	49.24
	<b>TOTAL</b>	<b>2,304,222</b>	<b>100.00%</b>	<b>2,304,222</b>	<b>100.00%</b>

After the date of submission by the Issuer of the previous financial report, i.e. the Q1 2023 report, on May 17, 2023, the following change took place in the structure of significant holdings of the Issuer's shares: on August 7, 2023, the shareholder Filip Granek, PhD, notified the Company of a reduction in his share in the total number of votes at the Issuer's General Meeting in connection with the registration of the increase in the Issuer's share capital by the registry court following the issue of series V shares. Specifically, his shareholding decreased from 16.11% (326,998 shares) to 14.26% (328,498 shares). The Company communicated this in ESPI Current Report No. 43/2023 of August 7, 2023.



#### 4.2. Shares held by members of management and supervisory bodies

Ref.	Name	Role	Shares held as at the Balance Sheet Date	Shares held as at the Report Date
1.	Filip Granek, PhD	CEO	326,998	328,498
2.	Jacek Olszański	Management Board Member	9,250	9,250
3.	Wiesław Rożucki, PhD	Chairman of the Supervisory Board	–	–
4.	Bartosz Wojciechowski, PhD	Deputy Chairman of the Supervisory Board	1,240	1,240
5.	Andrzej Domański	Deputy Chairman of the Supervisory Board	–	–
6.	Prof. Herbert Wirth	Supervisory Board Member	–	–
7.	Piotr Lembas	Supervisory Board Member	–	–
8.	Beata Turlejska	Supervisory Board Member	–	–

After the date of submission by the Issuer of the previous financial report, i.e. the Q1 2023 report, on May 17, 2023, the following change took place in the structure of holdings of the Issuer's shares by the Issuer's executive and non-executive directors: on August 7, 2023, the shareholder Filip Granek, PhD (Management Board President, CEO) notified the Company of a reduction in his share in the total number of votes at the Issuer's General Meeting in connection with the registration of the increase in the Issuer's share capital by the registry court following the issue of series V shares. Specifically, his shareholding decreased from 16.11% (326,998 shares) to 14.26% (328,498 shares). The Company communicated this in ESPI Current Report No. 43/2023 of August 7, 2023.

XTPL S.A.  
Stabłowicka 147  
54-066 Wrocław, Poland  
[xtpl.com](http://xtpl.com)



shaping global nanofuture

Other

## 5. MANAGEMENT BOARD'S STATEMENTS

The Management Board of XTPL S.A. declares that to the best of its knowledge the semi-annual condensed standalone financial statements and the comparative data have been prepared in accordance with the applicable accounting policies and give a true, fair and clear view of the assets, financial position and profit or loss of XTPL Group. Moreover, the Management Board of XTPL S.A. declares that the semi-annual management report of XTPL S.A. and XTPL Group gives a true view of development, achievements and the situation of XTPL S.A. and the Issuer's Group, including a description of key threats and risks.

Signatures of all Management Board members

**Filip Granek**  
Prezes Zarządu

A handwritten signature in blue ink, appearing to read 'Filip Granek'.

**Jacek Olszański**  
Członek Zarządu

A handwritten signature in blue ink, appearing to read 'Jacek Olszański'.

Wrocław, September 20, 2023

## 6. MANAGEMENT BOARD'S STATEMENT ON THE STATUTORY AUDITOR

The Management Board of XTPL S.A. hereby declares that the audit firm authorized to examine financial statements and entrusted with the interim review of the semi-annual condensed financial statements was selected in accordance with the applicable law. The audit firm and the statutory auditors performing the review met the conditions for issuing an unbiased and independent report on the review of the interim condensed financial statements, in accordance with the applicable regulations and professional standards.

Signatures of all Management Board members

**Filip Granek**  
Prezes Zarządu



**Jacek Olszański**  
Członek Zarządu



Wrocław, September 20, 2023

## 7. MANAGEMENT BOARD'S OPINION

Not applicable. The auditor has not issued any qualified opinion, adverse opinion or a disclaimer of opinion about the interim condensed consolidated financial statements.

## 8. APPROVAL FOR PUBLICATION

The semi-annual report for the first half of 2023 ended on June 30, 2023 was approved for publication by the Management Board of the Parent Company on September 20, 2023.

Signatures of all Management Board members

**Filip Granek**  
**Prezes Zarządu**

A handwritten signature in blue ink, appearing to read 'Filip Granek'.

**Jacek Olszański**  
**Członek Zarządu**

A handwritten signature in blue ink, appearing to read 'Jacek Olszański'.

Wrocław, September 20, 2023