



shaping global nanofuture

XTPL S.A. FINANCIAL RESULTS FOR 1Q2022

XTPL S.A. May 18, 2022

XTPL AT GLANCE



XTPL is a global player, developer and provider of **breakthrough and unprecedented technology** for electronics manufacturers, **enabling effective production** of **new generation devices**



Founded in **2015**, based in **Poland** and USA



Interdisciplinary team of experts, incl. 8 PhDs



Listed on **WSE** (2019) and FSE (2020)



Supported by stable shareholders



Operates in the rapidly growing printed electronics market: CAGR 9%*



Targeted and effective strategy focused on technology (incl. IP) and commercialization



UPD technology **breaks down technological barriers**

 current solutions could not be achieved by any other method



IP regularly secured by expanding the patent cloud - 24 patent applications and 2 patents granted



Implementation of commercialization and evaluation of the technology for industrial implementations with global players



Platform character of the technology with application in many existing sectors of printed electronics



Effective CF management.

Growing sales revenues

AGENDA



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EXECUTIVE SUMMARY

2. FINANCIAL RESULTS

3.

COMMERCIALIZATION

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TECHNOLOGY

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SUMMARY

EXECUTIVE SUMMARY

XJJL®

Q1 2022 – summary

- sales revenues increase to EUR 200 thousand from EUR 14 thousand a year earlier on the back of commercialization of XTPL solutions for already two (out of three) business lines and maintenance of the optimum level of operating costs
- completing **nine technology evaluations** in terms of industrial implementations with global players of the printed electronics sector and starting the first cooperation with an industrial partner: Nano Dimension **the first payment to be received in Q2 2022**
- starting a strategic cooperation with the University of Brescia from Italy (UniBs) cooperation on the use of the XTPL technology in biosensors
- **continued commercialization of solutions** intensive activities aimed at the sale of further Delta Printing System devices, and closing **six transactions for the sale of XTPL nanoinks**
- starting cooperation with two international distributors of XTPL solutions and stepping up other activities supporting the commercialization of solutions
- overcoming further technological barriers and intensifying efforts on the development of the Delta Printing System and nanoinks
- obtaining patent protection from the Japanese Patent Office
- presence at **three international industry events** presenting XTPL solutions to leading representatives of the printed electronics industry
- more than EUR 4 million funding obtained by an international consortium including XTPL under Horizon Europe the recommended grant for XTPL is almost EUR 430 thousand.



FINANCIAL PERFORMANCE – Q1 2022 SUMMARY



* figures in EUR thousand

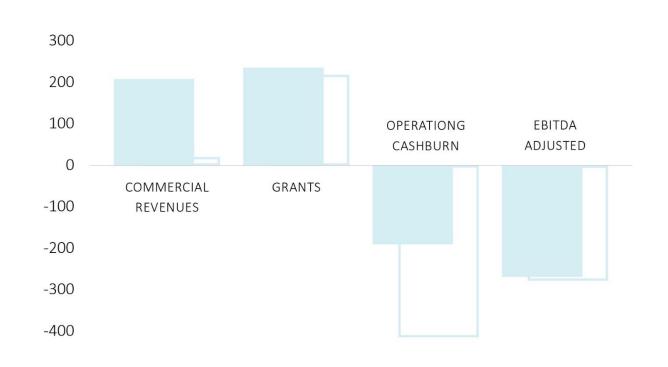
	Q1 2022	Q1 2021
Revenue from sales	200	14
Grants (reimbursement and advances)	233	213
Operating costs	630	418
Incentive scheme	247	230
EBITDA	-518	-504
EBITDA adjusted for the incentive scheme	-270	-274
CAPEX	-143	-149
Cash flows from operating activities	-41	-192
Quarterly cashburn	-191	-411
	31.03.2022	31.12.2021
Cash balance at the end of the period	803	1.024

- increase in revenues from the sale of products after Q1, sales are 45% of the total sales in 2021
- total grant proceeds broadly the same YoY
- recognition of the cost of the incentive scheme with no impact on the Company's assets or financial position
- EBITDA similar YoY
- maintaining the capital expenditure connected with the Company's business growth and solutions supporting the development of XTPL products for further commercialization of its technology.
- improvement of cash flows from operating activities

FINANCIAL PERFORMANCE – Q1 2022 SUMMARY



* figures in EUR thousand

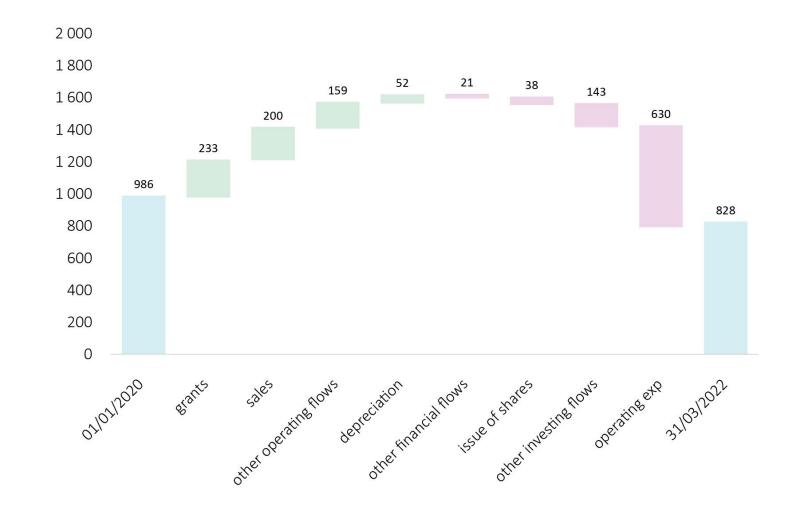


- strong sales growth
- significant change in customer base in favor of industrial customers
- commencement of paid phases of industrial projects
- increase in sales of consumables for DPS users
- successful acquisition of grants
- significant CF improvement

CASH FLOW



* figures in EUR thousand

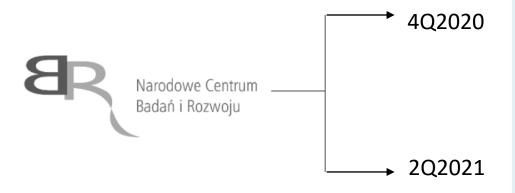


XTPL GRANT PROJECTS



8





An international technological project in which XTPL is involved. The project aims to develop a new technology for the production of microLED displays using selected additive techniques, including the UPD technology

- Implementation period: 24 months
- Total Project value: 4 293 263,75 EUR
- Recommended co-financing value for XTPL: 429,812.50 EUR

Innovative technology for precise deposition of conductive mesh for application in new generation OLED displays

- Implementation period: July 2020 June 2023:
- Project value: EUR 3.6 million
- Contribution from European Funds: EUR 2.6 million

Development of breakthrough printing technology of 3D micrometric conductive structures using an innovative printhead capable of printing on non-planar substrates and compatible ink for printed electronics applications

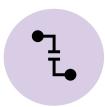
- Implementation period: 01.10.2020 30.09.2023.
- Project value: EUR 2.6 million
- Grant: EUR 1.7 million

MEGA TRENDS OF THE ELECTRONICS MARKETS





Miniaturization of the size and weight of electronic devices while increasing efficiency and speed of operation



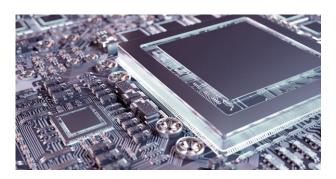
Changing the forms and properties of consumer electronics :

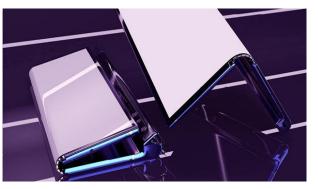
- flexibility
- new shapes, including three-dimensional forms



Ecology:

- saving materials and energy during production processes
- reducing the amount of waste using additive technology







PLATFORM CHARACTER



ADVANCED ELECTRONICS

- USD 47.1bn value of the global market of printed, flexible and organic electronics in 2021, up 14.0% YoY
- USD 63.3bn estimated value of this market in 2025, with USD 74.1bn estimated in 2030
- 9.0% CAGR 2020-2025

OLED DISPLAYS



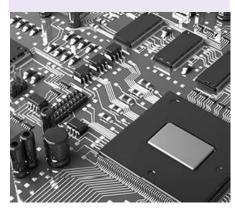
\$38.4 bilion (2021) CAGR 2021-2026 13.6%

ADVANCED INTEGRATED CIRCUIT



\$25.81 bilion (2021) CAGR 2019-2026 7.8%

ADVANCED PCBs



\$61.8 bilion (2021) CAGR 2021-2027 3%

SMART GLASS

\$3.8 bilion (2020) CAGR 2020-2025 12.1%

SECURITY PRINTING

\$117.2 bilion (2021) CAGR 2021-2026 12.5%

BIOSENSORS

\$24.9 bilion (2021) CAGR 2022-2030 8%

SOLAR PHOTOVOLTAIC PANELS

\$180.4 bilion (2020) CAGR 2021-2030 11.9%

COMPANY DEVELOPMENT PHASE



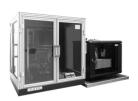
CURRENT PHASE

INITIAL TECHNOLOGY DEVELOPMENT PHASE

- development of the underlying technology
- technology evaluation by industrial clients and academic R&D centers

- Research & Development
- rapid prototyping
- commercialization of the Delta Printing System and XTPL nanoinks
- technology evaluation for industrial implementations with global players in the printed electronics market
- establishing and implementing commercial and strategic cooperation in order to introduce technologies to global industrial customers







 integration of XTPL Printing Module to industrial equipment

NEXT STEP

continuous supply of ink and nozzles + cartridges





GLOBAL RANGE OF ACTIVITY





XTPL is based in Poland and in the USA (XTPL Incorporated).

The Company is in talks with global players and is currently commercializing its products on the markets of North America, Europe and Asia.

XTPL acquired business partners in South Korea, China and Hong Kong, British Isles, Germany and India.

INTERNATIONAL BUSINESS PARTNERS



XTPL DISTRIBUTORS

BANDI CONSORTIA

(South Korea)

XTPL has established cooperation with Bandi Consortia support to the commercialization of XTPL technology on the Korean market. The Korean partner will officially represent XTPL and strengthen the introduction of the XTPI technology offering into the FPD (flat panel display) and semiconductor industry on the local market.

YI XIN (China and Hong Kong)

XTPL is expanded its presence in the Chinese market by starting cooperation with Yi Xin Technology, who intends to distribute the Company's technological solutions in China. The new XTPI distributor has an extensive network of relationships with major Chinese research institutes and industrial manufacturers from the display, touch panel and semiconductor sectors.

SEMITRONICS

(British Isles)

XTPL intends to introduce its technology to the markets of Great Britain and Ireland. The Company started cooperation with Semitronics Sales Ltd, a highly-specialized distributor in this region. Thanks to the cooperation with Semitronics, XTPL technology and products will continue to gather momentum with innovative customers.

MERCONICS*

(Germany)

Merconics will promote XTPL technology and products in selected European countries, including in Germany, France, Austria and Switzerland. Merconics is a European renowned distributor active in the area of advanced manufacturing and analytical for equipment the semiconductor sector. Their portfolio includes solutions from such brands as Bruker. NovaCentrix Veeco, or Optomec.

VERTEX*

(India)

XTPL started cooperation with Mumbai-based Vertex Global Solutions, a firm specialized providing in technological solutions for the display, semiconductor and organic photovoltaic cells industry. Vertex is a newly formed, highly specialized boutique agency headquartered in Mumbai and its founders have over 25 years of experience in the industry.

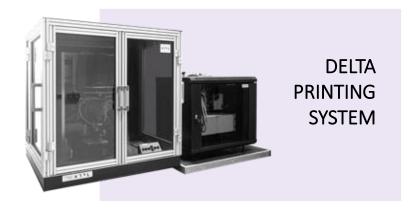
XTPL PRODUCTS



Microelectronics rapid prototyping possibilities to the feature sizes and applications previously unavailable to other printing techniques



- printing module for integration with industrial equipment
- opportunities in the FPD, semicon and PCB areas
- use cases are focused on local highprecision additive jobs



- stand-alone R&D and prototyping system
- Delta Printing System clients:

University of Stuttgart, Germany (Q4'2020)

Karlsruhe Institute of Technology "KIT", Germany (Q3'2021)

PORT Poland (Q4'2021)

Glasgow University, UK (Q4'2021)

University of Brescia, Italy (Q4'2021)



HIGHLY-CONCENTRATED NANOINKS

- silver nanoinks with a high silver content and excellent stability for use in various printing techniques
- silver products sold to academic and industrial partners globally
- copper and gold products under development

CURRENT INDUSTRIAL PROJECT PIPELINE



(only projects in Stage 2 and above shown)

			STAGE 0	STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 5
PROJECT NAME	INDUSTRY AND GEOGRAPHY	PARTNER / END-USER	Base-technology development at XTPL	Initial contact and identification of the problem-solution fit	Technology Evaluation / Development at XTPL site	Technology Validation at Partner site	Industrial Prototype Tool	Industrial "Roll-out"
OLED 1.0 um ODR Repair	FPD Korea	Leading consumer electronic manufacturer				Initial discussions		
TE-OLED	FPD China	Leading electronic components producer				Initial discussions		
microLED Interconnect Repair	FPD China	Global provider of ICT infrastructure and smart devices						
Interconnect Depo	FPD USA	Multinational technology company				Initial discussions		
microLED CCL	FPD USA	Leading semiconductor chip manufacturer						
WLP Precision Via Fill	Semicon Taiwan	Global semiconductor foundry					Initial discussions	
High-resolution Printed RDL	Semicon China	Leading global provider of ICT infrastructure and smart devices						
Prototyping of ICs interconnections	Semicon USA	Microcontroller and integrated circuits manufacturer						
Mettalic ink	PCB EMEA	Nano Dimension Ltd.						

DELTA PRINTING SYSTEM: COMERCIALISATION AND PIPELINE



1Q'2022 1Q'2022

OFFER MADE DEMO PROJECTS AND SALES CONTRACT SIGNED IN TOTAL*

4 9 5

Delta Printer price: approx. EUR 170-200 thousand

XTPL Delta Printing System users:











Until the first industrial implementation, the company decided to sell its products in the form of a printer and nanoinks in order to start generate cash flows from operating activities

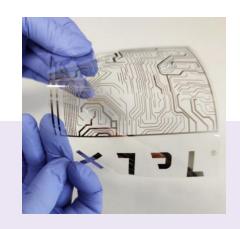


Each printer sold should generate monthly revenues from the sale of consumables, as well as system maintenance and upgrades.

NANOINKS: COMERCIALISATION AND PIPELINE





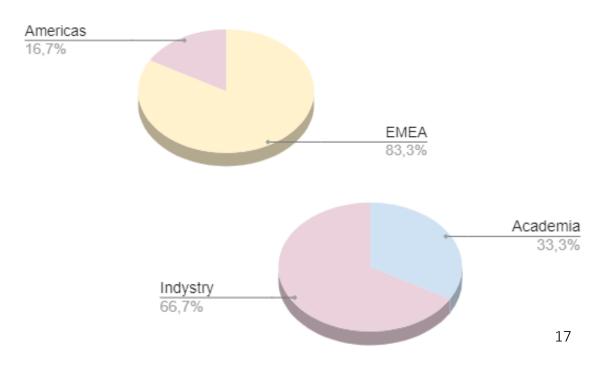


Key milestones:

- 6 independent orders from USA and EMEA region
- 37 orders from the beginning of the commercialization process
- copper and gold inks under development
- business cooperation with Nano Dimension to develop a nextgeneration conductive nanoink
- signing an agreement with **nScrypt** for the distribution of **conductive paste CL85**, which will be added the client's product offer
- advantage of industrial clients over scientific clients



Ink sales 1Q'2022



STARTING THE COLLABORATION WITH NANO DIMENSION, THE FIRST INDUSTRIAL PARTNER





Nano Dimension Ltd. is a NASDAQ-listed provider of intelligent machines and solutions for the production of Additively Manufactured Electronics (AME). Nano Dimension implements printing technology for manufacturing of AME and 3DPrinted Electronics markets.

- On January 10, 2022, XTPL entered into a cooperation agreement with Nano Dimension Ltd.
- Collaboration to develop a special formulation of conductive ink for the devices manufactured and supplied by Nano Dimension
- The special formulation for electronically conductive ink is based on metallic nanoparticles for Additively Manufacturing Electronics (AME) applications
- The solutions will enable high conductivity for Nano Dimension products focused on AME markets
- The first sales revenues from established cooperation may be recorded in XTPLs' income statement starting from 2022

"Adding new materials to our portfolio is a key strategic aim for Nano Dimension company, and in addition to in-house development of dielectric and conductive ink, we partner with material companies to expand our material portfolio for different applications" said Hanan Gino, Chief Product Officer of Nano Dimension. "The expertise of XTPL will enable our customers to more easily develop new classes of High-Performance Electronic Devices (HI-PEDS®) on our AME solutions" he added.

NANODIMENSION

IMPLEMENTATION OF THE FIRST STRATEGIC AGREEMENT WITH THE UNIVERSITY OF BRESCIA





- Starting strategic cooperation with the University of Brescia in Italy UniBs (22 March 2022), following technology evaluation based on the Delta Printing System purchased in 2021
- Developing an innovative method of producing next generation organic biosensors using the unique electronics printing technology created by XTPL
- The goal is to increase the reach of XTPL technology entering a new market and a new segment of industrial customers
- The parties to the agreement will consider expansion of the cooperation under international projects funded as part of selected EU programs.

"Once we got to know the capabilities of the XTPL technology, in the first place we decided to purchase the Delta Printing System in the first place. The more familiar we became with the Company's solution, the more convinced we grew about forging a longer cooperation with XTPL and working together on what we believe is a promising solution for bioelectronics. We intend to develop ultra-sensitive, organic biosensors that will be printed and integrated into 3D, adaptive and flexible substrates. An important market advantage for these new biosensors will be their biodegradability, an important and increasingly necessary feature of electronic devices," says Fabrizio Torricelli, Professor at the University of Brescia, who leads the research.

NSCRYPT – PRIVATE LABEL AGREEMENT



- On April 5, 2022, XTPL strengthens cooperation with nScrypt Inc. by concluding a private label agreement.
- XTPL's Ag Nanopaste CL85 will be added to nScrypt's product offer and will be marketed to nScrypt's production system users from medical device, defense and space sectors.
- XTPL's Ag Nanopaste CL85 will be the first product to be offered as part of the cooperation between the companies.
- Along with nScrypt's technological equipment, XTPL's nanopaste will be used for the development of new generation printed electronics.
- The very good results of the nanopaste's evaluation, carried out by the nScrypt's R&D team for its selected customers, confirmed the uniqueness of the XTPL solution.

"Quality and performance are key for us and our customers. These are the features we see in Nanopaste CL85 developed and produced by XTPL. Implementing the XTPL nanopaste into our deposition systems will allow fine features to be printed, down to 25 microns, with high aspect ratios. This will also allow more electrical current to be carried in a microscopic line." says nScrypt's CEO, Ken Church (PhD).



nScrypt designs and manufactures high-precision industrial Microdispensing and Direct Digital Manufacturing equipment with unmatched accuracy and flexibility. nScrypt has award-winning technologies and is thrived to provide complete solutions for various applications in electronics & packaging, 3D printing, life science and more. nScrypt's headquarter is based in Orlando, Florida.

TECHNOLOGY AND R&D – SUMMARY OF Q1 2022



Key achievements and progress in research & development in Q1 2022

- Development of software controlling the Delta Printing System the ability to import designs for printing in CAD format, commonly used in industry
- Completing the first stage of the technological phase under the agreement with Nano Dimension Ltd. The agreement relates to developing a new generation conductive nanoink for industrial applications in the client's products designed for the production of PCBs.
- Development of the Ultra-Precise Deposition technology by elaborating the procedure
 of sintering the printed structures by means of a laser or flash lamp in low-temperature
 drying (up to 100°C). The aim is to achieve the highest possible electrical conductivity
 under the given conditions that guarantee the safety of other elements of
 microelectronic systems.

Since the beginning of 2022, XTPL took an active part in six international industry events:

- innoLAE 2022 UK
- Largest Online Gathering of the Printed, Hybrid, InMold,
 3D, R2R & Textile Electronics Community online
- LOPEC 2022 Germany
- Smart Systems Integration 2022 France
- SMTconnect Germany
- Display Week United States
- Impact'22 Poland

The events are an excellent opportunity to showcase the unique XTPL technology to leading representatives of industry and science from around the globe.

INTELLECTUAL PROPERTY PROTECTION — SUMMARY



XTPL's global solutions are being systematically secured by expansion of the patent cloud. Intellectual property is a product and a competitive advantage, while development of the patent cloud has a major impact on the Company's value — the size and proper protection of the cloud are key to the market position. XTPL solutions are protected as of patent submission with the relevant authority

PATENT GROUPS OF SUBMITTED APPLICATIONS

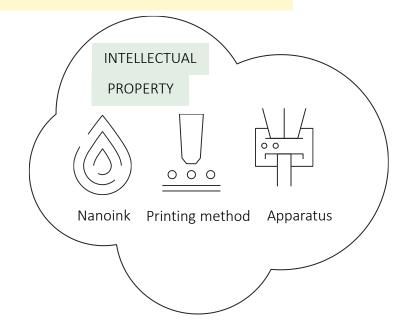
UPD process – patents describing the ultra-precise deposition process, or a device used for this process

Nanoink – patents protecting various nanoink formulations

Software – patents protecting the solutions implemented in the software that controls the printing devices

Application fields – patents describing solutions to specific technological problems using the UPD method

Characterization and quality control – patents related to the characterization and quality control of selected components of the printing head



24 patent applications filed in total

patents granted



Support from a international law firm

K&L GATES (Palo Alto, CA, USA)
Gill Jennings & Every LLP (London, UK)

ANALYTICAL COVERAGE BY STIFEL EUROPE BANK AG



Stifel Europe Bank AG is European institution in the financial services sector specializing in the areas of equity brokerage, investment banking and fixed income. The scope of its analysis currently covers shares of 400 companies, mainly from Europe. XTPL is the first Polish company analyzed by Stifel.

Previous recommendations issued by Stifel Europe Bank AG:

Institution	Analyst	Recommendation	Target price	Date
Stifel Europe Bank AG	Florian Pfeilschifter	BUY	225 PLN	05.01.2022
Stifel Europe Bank AG	Florian Pfeilschifter	BUY	225 PLN	09.30.2021
Stifel Europe Bank AG	Florian Pfeilschifter	BUY	PLN 225	06.02.2021
Stifel Europe Bank AG	Florian Pfeilschifter	BUY	PLN 210	04.29.2021
MainFirst Bank AG	Florian Pfeilschifter	BUY	PLN 210	09.30.2020
MainFirst Bank AG	Florian Pfeilschifter	BUY	PLN 210	09.02.2020
MainFirst Bank AG	Florian Pfeilschifter	BUY	PLN 210	04.24.2020
MainFirst Bank AG	Florian Pfeilschifter	BUY	PLN 215	02.24.2020

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STIFEL	SPONSORED RESEARCH 5 January 2022	XTPL Technology Hardware FLASH NOTE
Buy PT: PLN225.00	Keeping up the good news Delta order and cooperatio	
STIFEL	SPONSORED RESEARCH 30 September 2021	XTPL Technology Hardware FLASH NOTE
Buy PT: PLN225.00	H1: Further progress in all stringent cost control	l areas tied with
STIFEL	SPONSORED RESEARCH 2 June 2021	XTPL Technology Hardware COMPANY UPDATE
STIFEL Buy PT: PLN225.00 (vs PLN210.00)		Technology Hardware COMPANY UPDATE rogress in all
Buy	2 June 2021 Fields of Dreams: Good p	Technology Hardware COMPANY UPDATE rogress in all

WAR IN UKRAINE - IMPACT ON XTPL



MARKET IMPACT

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.

IMPACT ON INTERNAL ACTIVITIES

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

- introduced an additional paid 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 Wrocław railway station to their place of accommodation
- provided material support to Ukrainian soldiers
- paid contributions to verified fundraisers.

XTPL STAND WITH UKRAINE

WHY XTPL? – SUMMARY



XTPL is a global player in the rapidly growing printed electronics market, with a targeted development strategy, an interdisciplinary team of experts and support from stable shareholders. It offers global business partners the world's most precise, platform printing technology, providing them with competitive edge and technological advantages by enabling effective production of modern, new generation devices.

ORGANIZATION

- global operations
- a modern business approach thanks to an interdisciplinary team with extensive expertise and experience over 35 people in Poland and the USA
- support and trust of significant investors, with XTPL executives in the shareholding structure

STRATEGY

• a precisely defined development strategy including: technology and R&D, commercialization of the printing device for industrial implementations as well as Delta printer and nanoinks – diversified business model

MARKET

- reaching many fast-growing organic and flexible printed electronics sectors –
 a market which is expected to total USD 63.3 billion in 2025 (CAGR 2020–2025:
 9.0%), and USD 74.1 billion in 2030 an increasing number of new applications of printed electronics
- The existing printing methods do not address the resolution problem, they are complicated, and require a multi-stage resolution process xtpl.com

TECHNOLOGY

- uniqueness disruptive, proprietary and unique UPD® (Ultra Precise Deposition) technology that breaks down further technological barriers and helps obtain conductive lines that previously could not be achieved by any other method, with resolution of $1 \mu m$.
- platform character with application in many existing sectors of printed electronics
- IP regularly secured by expanding the patent cloud -24 applications filed

COMMERCIALIZATION

- first commercialization contract with industrial partner Nano Dimension
- a consistent commercialization strategy and the start of sales of finished products as well as **9** technology evaluations for industrial implementations with global players
- revolution enabling production of complex and complicated devices using efficient, cost-effective and scalable printing methods.

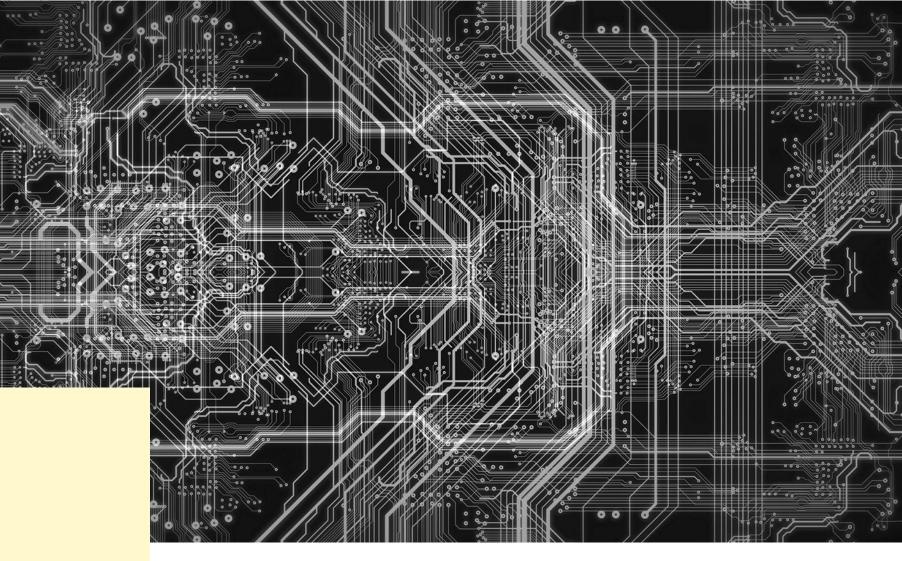
FUNDING

- generating cash from operating activities thanks to growing sales
- securing financial liquidity and the ability to obtain subsidies (NCBR support, implementation of the HORIZON program in the perspective)

CONTACT FOR INVESTORS: investors@xtpl.com



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THANK YOU

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