



shaping global nanofuture

XTPL S.A. FINANCIAL RESULTS FOR 2021

XTPL S.A.

April 26, 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



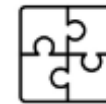
UPD technology **breaks down technological barriers** – current solutions could not be achieved by any other method



IP regularly secured by expanding the patent cloud - **24** patent applications



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



For the first time in history, **EBIT was positive in Q42021**

AGENDA



1.

EXECUTIVE
SUMMARY

2.

FINANCIAL RESULTS

3.

COMMERCIALIZATION

4.

TECHNOLOGY

5.

SUMMARY

EXECUTIVE SUMMARY



FY'2021 – summary

- **significant increase in revenues from the sale of products to the level of over PLN 2.08 million compared to PLN 64 thousand PLN in the previous year** in connection with the commercialization of XTPL solutions for two (out of three) business lines of the company and operating cost discipline maintained
- **continuation of commercialization of the solutions** – total sales of 5 Delta Printing System devices and sales of 19 XTPL nanoinks
- completing **9 technology evaluations** in terms of industrial implementations with global players of the printed electronics sector
- acquiring **3 new international distributors** of XTPL solutions and intensification of other activities supporting the commercialization of the solutions
- **breaking down further technological barriers** - intensifying efforts on the development of the Delta Printing System and nanoinks, and first industrial contract signed with Nano Dimension in early 2022
- **extension of the patent cloud by 4 patent application**- 24 patent applications in total - protection of technological solutions
- presence at 19 international industry events and **showcasing solutions to printed electronics industry leaders**
- Participation in international investors conferences (**Virtual Zürs, Equity Forum**) and active communication with an investors - organization of the **XTPL Investor's Day online event** – a response to the wide interest of investors in the company's activities, assets and team



FINANCIAL RESULTS – SUMMARY OF 2021 & 4Q2021



* figures in EUR thousand

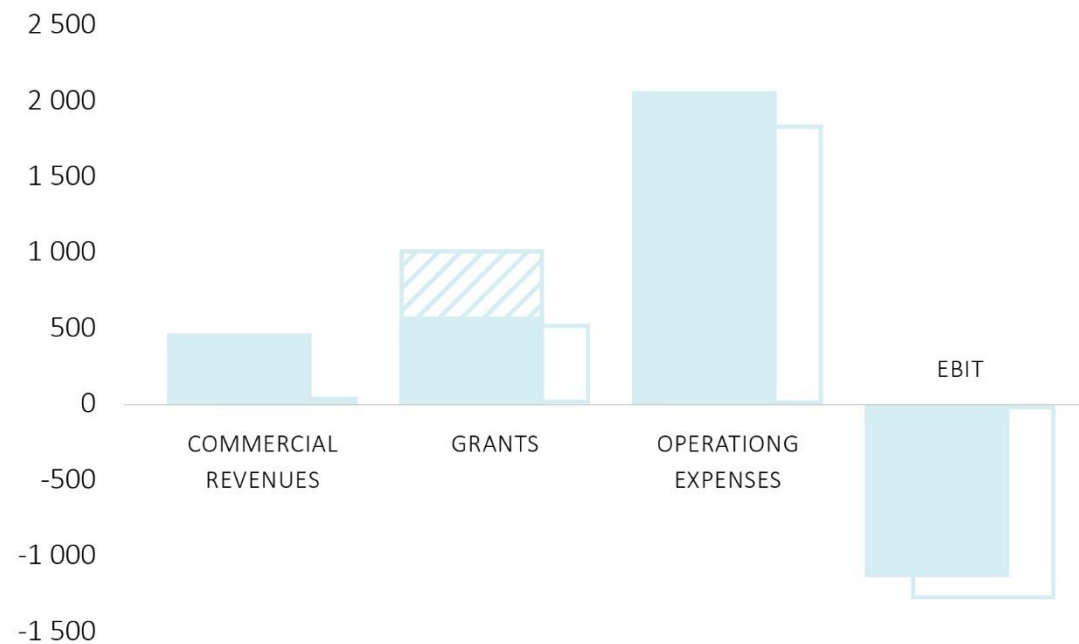
	2021	2020	4Q2021	4Q2020
Revenue from sales	456	14	409	4
Grants (refunds and advances)	973	498	394	266
Operating costs	2 054	1 825	639	400
Incentive program costs	251	524	0	0
EBIT	-1 380	-1 794	13	-354
EBIT adjusted by incentive costs	-1 129	-1 270	13	-354
CAPEX	-353	-182	-114	-161
Operating CF	-831	-1 287	-142	-363
	31.12.2021	31.12.2021	-	-
Cash at the end of the reporting period	993	2 342	-	-

- increased revenues from the sale of products due to the commercialization of XTPL solutions under two business lines
- the total value of proceeds from grants is higher y/y
- maintained the optimal level of operating costs
- improved EBIT y/y
- recognized the cost of the incentive scheme with no impact on the Company's assets or financial position
- capital expenditure connected with the Company's growth and solutions supporting the development of XTPL products for further commercialization of its technology
- improved operating cash flows

FINANCIAL RESULTS – SUMMARY OF 2021



* figures in EUR thousand

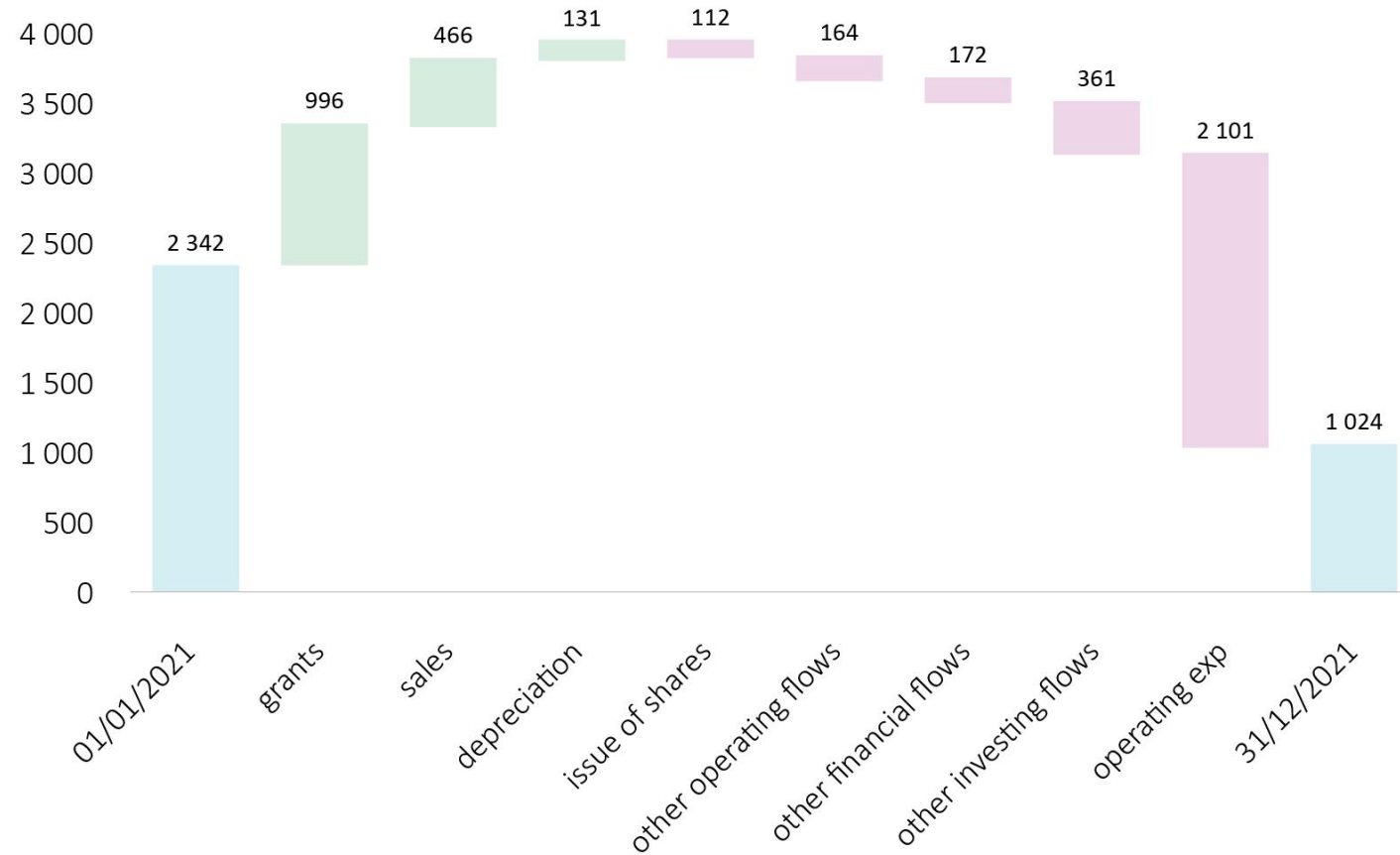


- a robust increase in sales
- the average sales margin was 76%
- successful acquisition of grants
- average monthly cost of EUR 160 thousand vs. EUR 144 thousand

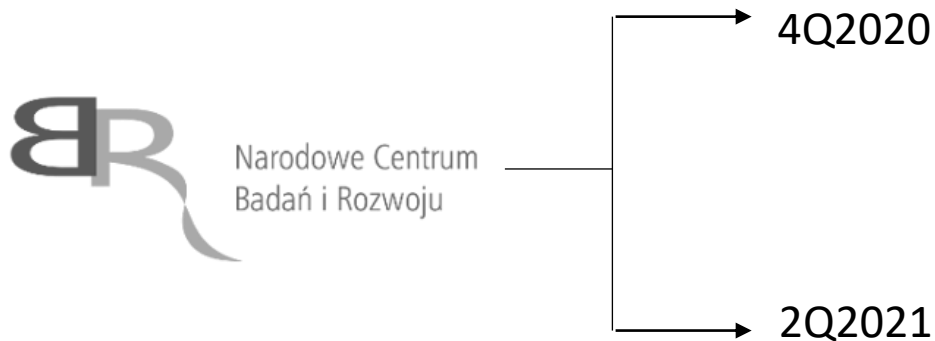
CASH FLOW



* figures in EUR thousand



XTPL GRANT PROJECTS



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

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

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.**

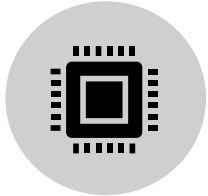
Previous recommendations issued by Stifel Europe Bank AG:

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

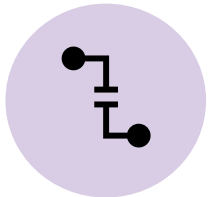
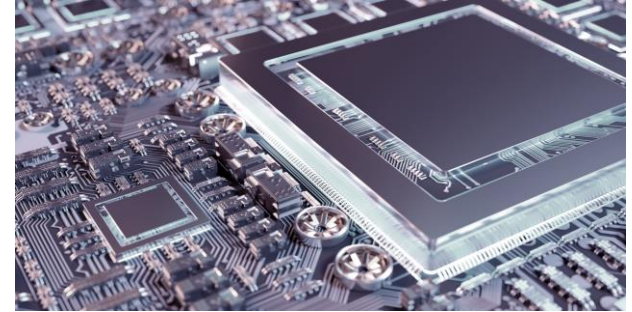
Research is distributed to Polish institutional investors by Erste Securities Polska S.A.
erstesecuritiespolska(at)erstegroup.pl

STIFEL Buy PT: PLN225.00	SPONSORED RESEARCH 5 January 2022	XTPL Technology Hardware FLASH NOTE
	Keeping up the good news flow: Additional Delta order and cooperation	
STIFEL Buy PT: PLN225.00	SPONSORED RESEARCH 30 September 2021	XTPL Technology Hardware FLASH NOTE
	H1: Further progress in all areas tied with stringent cost control	
STIFEL Buy PT: PLN225.00 (vs PLN210.00)	SPONSORED RESEARCH 2 June 2021	XTPL Technology Hardware COMPANY UPDATE
	Fields of Dreams: Good progress in all areas - Commercialisation fully on track	
STIFEL Buy PT: PLN210.00	SPONSORED RESEARCH 29 April 2021	XTPL Technology Hardware FLASH NOTE
	FY20 recap: Further milestones in a difficult year	

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



ADVANCED ELECTRONICS

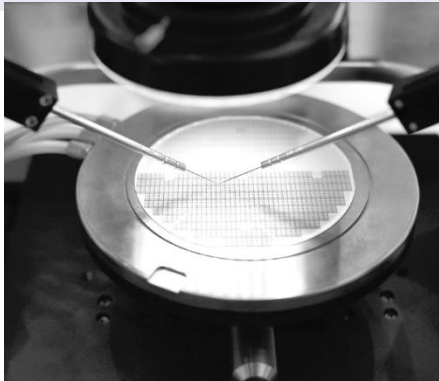
- **USD 47.1bn** - value of the global market of printed, flexible and organic electronics in 2021, up 14.0% YoY
- **USD 63.3bn** - estimated value of this market in 2025, with **USD 74.1bn** estimated in 2030
- **9.0%** - CAGR 2020–2025

OLED DISPLAYS



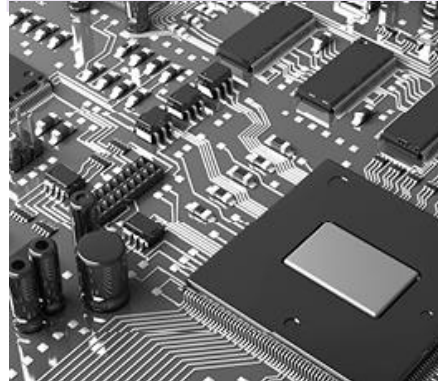
\$38.4 bilion (2021)
CAGR 2021-2026 13.6%

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%

BIOSENSORS

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

SECURITY PRINTING

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

SOLAR PHOTOVOLTAIC PANELS

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

COMPANY DEVELOPMENT PHASE



NEXT STEP

CURRENT PHASE

INITIAL TECHNOLOGY DEVELOPMENT PHASE

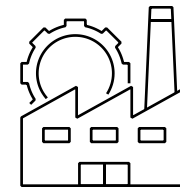
- development of the underlying technology
- technology evaluation by industrial clients and academic R&D centers

- 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
- continuous supply of ink and nozzles + cartridges

XTPL
INSIDE

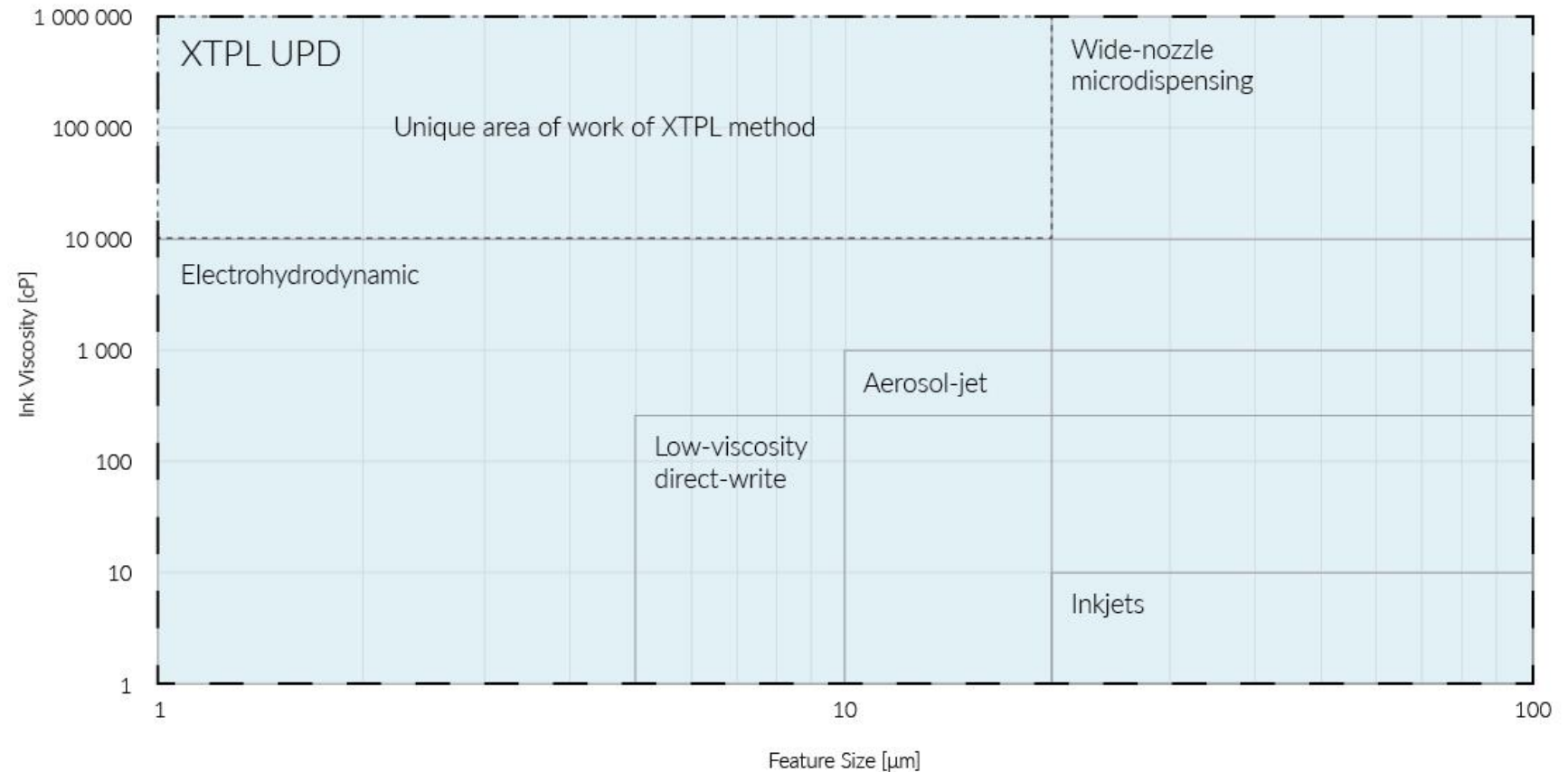


THE UNIQUENESS OF THE XTPL ULTRA-PRECISE DEPOSITION TECHNOLOGY



The XTPL technology stands out from other methods in terms of both viscosity and structure sizes, which makes it unique on the market

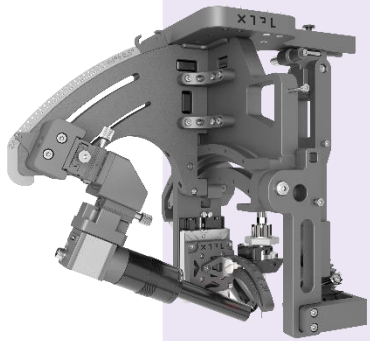
- ability to print high viscous materials along with small feature sizes
- high aspect ratios just after a single pass
- matchless variety of printing different materials
- uninterrupted interconnections on highly complex topographies
- ultra-high-resolution printing on practically any kind of substrate



LEGEND:

- unique area of work where there are no competitive methods exists
- — general area of work of XTPL

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



**HIGH-RESOLUTION
„EPSILON”
PRINTING MODULE
FOR INTEGRATION**

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



**DELTA
PRINTING
SYSTEM**

- 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

INTERNATIONAL BUSINESS PARTNERS



XTPL DISTRIBUTORS

BANDI CONSORTIA* (South Korea)

XTPL has established cooperation with Bandi Consortia to support the commercialization of XTPL technology on the Korean market. The Korean partner will officially represent XTPL and strengthen the introduction of the XTPL 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 XTPL 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 equipment for the semiconductor sector. Their portfolio includes solutions from such brands as Bruker, Veeco, NovaCentrix or Optomec.

VERTEX (India)

XTPL started cooperation with Mumbai-based Vertex Global Solutions, a firm specialized in providing 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.

GLOBAL RANGE OF ACTIVITY



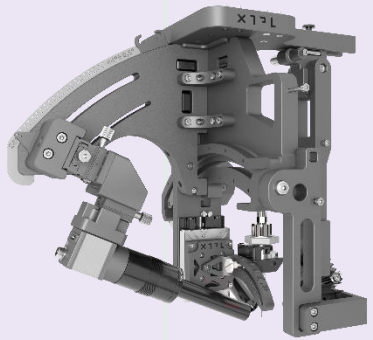
 XTPL office locations  Sales of XTPL products  XTPL distributors

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.

COMMERCIALIZATION OF THE XTPL PRODUCTS – 2021 SUMMARY



HIGH-RESOLUTION
„EPSILON”
PRINTING MODULE
FOR INTEGRATION



DELTA
PRINTING
SYSTEM



HIGHLY-
CONCENTRATED
NANOINKS

HIGH-RESOLUTION „EPSILON” PRINTING MODULE FOR INTEGRATION

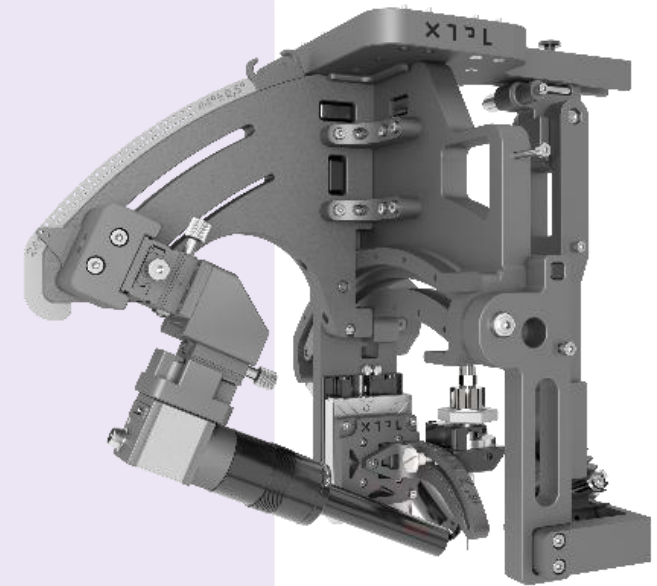


Goal:

- printing module for integration with industrial equipment
- thanks to the integrability of the Epsilon Printing Module, industrial integrators and end-users can benefit from the new capabilities of printing high-resolution functional structures with ultra-high-density

Basic information:

- innovative printing head with compatible nanoinks enables ultra-precise creation of conductive lines on the selected substrate (application field)
- opportunities in the FPD (ang. flat panel display), semicon and PCB areas
- use cases are focused on local high-precision additive jobs
- integrates all functionalities required by XTPL® ultra-precise deposition technology, together with electronic control and the proprietary XTPL® UPD Process Control Software suite



CURRENT INDUSTRIAL PROJECT PIPELINE

(only projects in Stage 2 and above shown)



	PROJECT NAME	INDUSTRY AND GEOGRAPHY	PARTNER / END-USER	STAGE 0 Base-technology development at XTPL	STAGE 1 Initial contact and identification of the problem-solution fit	STAGE 2 Technology Evaluation / Development at XTPL site	STAGE 3 Technology Validation at Partner site	STAGE 4 Industrial Prototype Tool	STAGE 5 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



Goal:

- XTPL technology demonstrator
- building the credibility of XTPL in the industry by key opinion leaders (an industry expert) and raising awareness of the XTPL technology
- technology validation at the partner's site
- identifying new application areas for the XTPL technology and discovering new application fields
- reference visits

Key information:

- an independent R&D system for rapid prototyping using XTPL's® UPD technology
- product developed in 2020 and continuously developed
- client groups: industrial R&D units, scientific institutions, integrators*



Market size:

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.

The price of those printers ranges from **EUR 50 thousand to more than EUR 500 thousand** per device.

According to a survey conducted among members of the OE-A (Organic and Printed Electronics Association)**, the average increase in sales in the printed and organic electronics market in 2022 may reach 12% y/y, while in 2023, it may be 16% compared to 2022.

DELTA PRINTING SYSTEM: COMERCIALISATION AND PIPELINE



2021	2021	
OFFER MADE TO A POTENTIAL CLIENT	DEMO PROJECTS AND NEGOCIATIONS	SALES CONTRACT SIGNED IN TOTAL*
27	42	5

Delta Printer price: approx. EUR 170-200 thousand

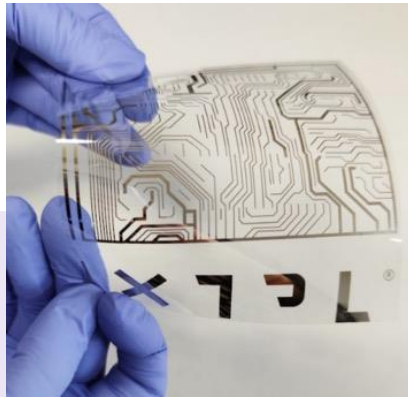
Key milestones:

- first device delivered to the University of Stuttgart, Germany (Q1'2021)
- second device sold to Karlsruhe Institute of Technology „KIT“, Germany (Q3'2021)
delivered to the Institute in Q4'2021
- signing a contract for the sale of a third device to PORT, Poland (Q4'2021)
delivered to the PORT in Q4'2021
- another sale of the device to the University of Glasgow, Scotland (Q4'2021)
delivered to the University in Q1'2022
- fifth Delta Printing System sold to University in Brescia, Italy (Q4'2021)
delivered to the Institute in Q1'2022

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.

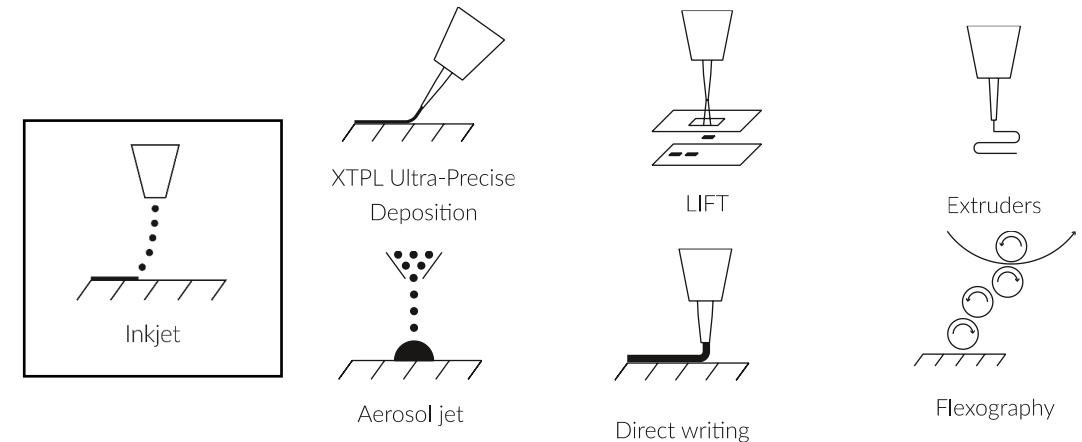


Key information:

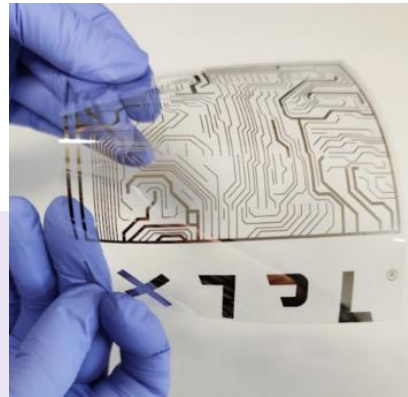
- high-yield, conductive nanoinks with silver content for printed electronics, developed by XTPL's in-house R&D department.
- inks protected by patent applications
- client groups: industrial R&D units, scientific institutions
- XTPL nanoinks are tested by many R&D units in Europe – products delivered to industry and academic centers

Inks dedicated to different technology types:

- they have dedicated physicochemical properties enabling full utilization of the UPD method's potential
- the inks are products that can be commercialized separately
- developed ink formulations dedicated to the most comprehensive printing techniques, such as Ink-jet and Aerosol Jet Printing



NANOINKS: COMERCIALISATION AND PIPELINE

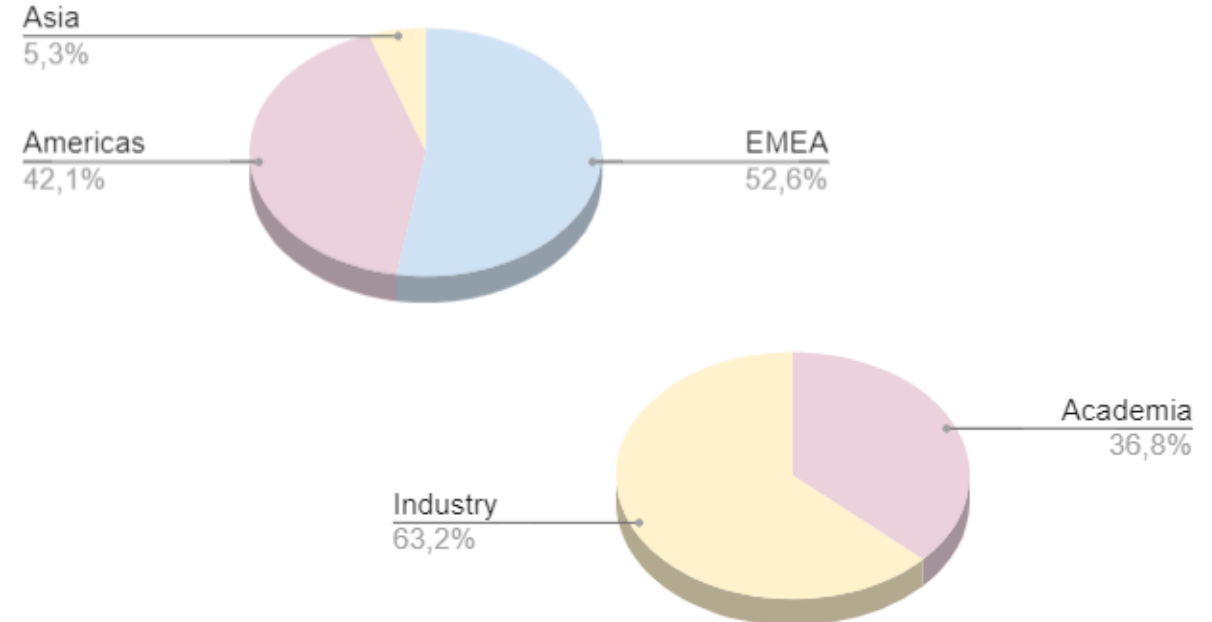


Key milestones:

- **19 independent orders** from the EMEA region, Asia and USA in 2021
- **35 orders** from the beginning of the commercialization process
- **copper and gold inks** under development
- business cooperation with **Nano Dimension** to develop a next-generation conductive nanoink
- signing an agreement with **nScript** for the distribution of **conductive paste CL85**, which will be added the client's product offer

OFFER MADE TO A POTENTIAL CLIENT	SAMPLE SENT TO POTENTIAL CLIENT AND NEGOTIATIONS	SALES CONTRACT SIGNED AND PRODUCT DELIVERED
43	12	19

Ink Sales 2021



NANO DIMENSION – STARTING THE COLLABORATION



- 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 Manufactured 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

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.

NSCRYPT – PRIVATE LABEL AGREEMENT



- On April 5, 2022, XTPL strengthens cooperation with nScript Inc. by concluding a private label agreement.
- XTPL's Ag Nanopaste CL85 will be added to nScript's product offer and will be marketed to nScript'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 nScript'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 nScript'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 nScript's CEO, Ken Church (PhD).



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

TECHNOLOGY AND R&D – SUMMARY OF 2021



Main achievements and progress in research and development in 2021:

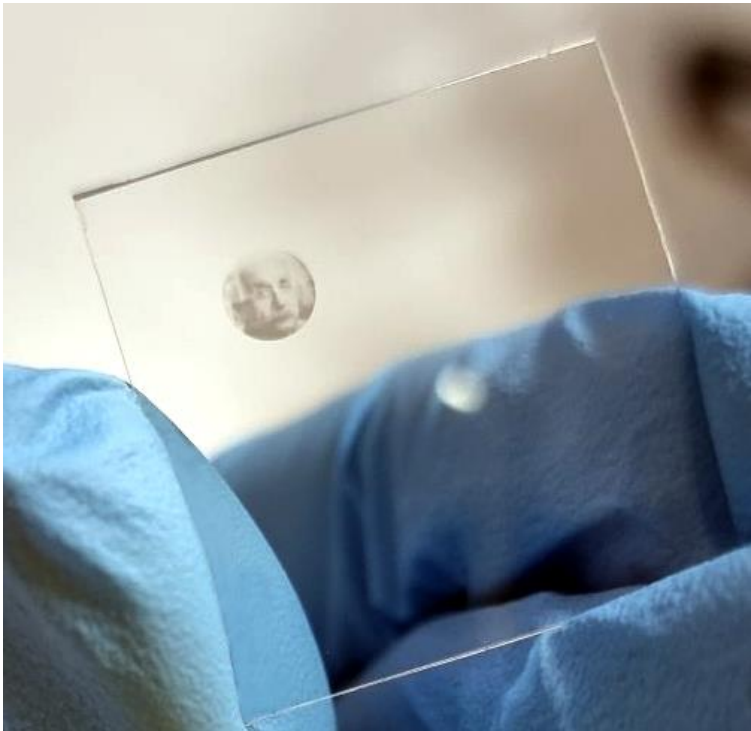
- development of Ag ink formulations dedicated to various printing techniques, notably XTPL INKJET INK IJ36 technique
- development of the copper and gold XTPL inks (Nanopastes)
- extension of the replaceable nozzle's life to more than 60 days
- development of the technique of printing XTPL features up to a width of 1 μm on various substrates, including high-resolution OLED displays
- printout on a 350 μm step
- filling openings in semiconductor structures using a selected material
- developing a technique for printing electronic connections in advanced integrated circuits, demonstrating heterogeneous filling of the structure: printing with an insulating material on the outside, and with a conductive material on the inside
- intensifying efforts on the development of the Delta Printing System as a product
- development of the technique of printing features up to a width of 1 μm printed with client-supplied material based on quantum dots

In 2021, XTPL actively participated in **19 international industry events** and **organized 3 webinars** on XTPL technologies and products:

- China Hi-Tech Fair – China
- The 28th International Display Workshop – Japan
- iMiD 2021 Business Forum – South Korea
- TechConnect Europe Innovation – Sweden
- Flex China 2021 – China
- Expo 2020 - UAE
- Pro Flex – Germany
- 30th Economic Forum in Karpacz – Poland
- Connecting Heterogeneous Systems Summit - USA
- International Meeting on Information Display – South Korea
- Nanotechnology – Greece
- Technology webinars XTPL - Poland
- International Conference on Display Technology - China
- Display Week - USA
- Printed, Flexible, Hybrid, & InMold Electronics – Germany
- Smart Systems Integration – Germany
- Ceramic Interconnect and Ceramic Microsystems Technologies (CICMT) - USA
- Internano Poland – Poland
- LOPEC – Germany
- innoLAE 2021 Innovations in Large-Area Electronics - UK

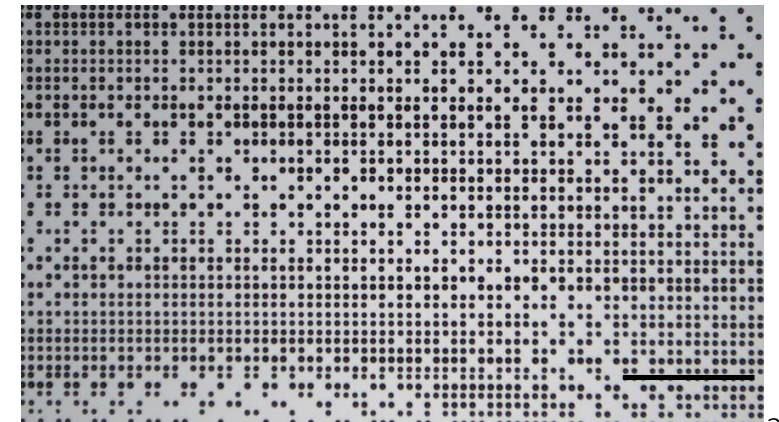
The events are an excellent opportunity to showcase the unique XTPL technology to leading representatives of industry and science from around the globe.

PRECISE MICRODOTS PRINTING



The capability of printing highly repeatable microdots with a diameter of less than $10\text{ }\mu\text{m}$ can be used in such applications as connections in advanced integrated circuits, micro-LED connections in next generation displays, precise deposition of functional materials (such as quantum dots), and biomaterial samples in pharmaceuticals.

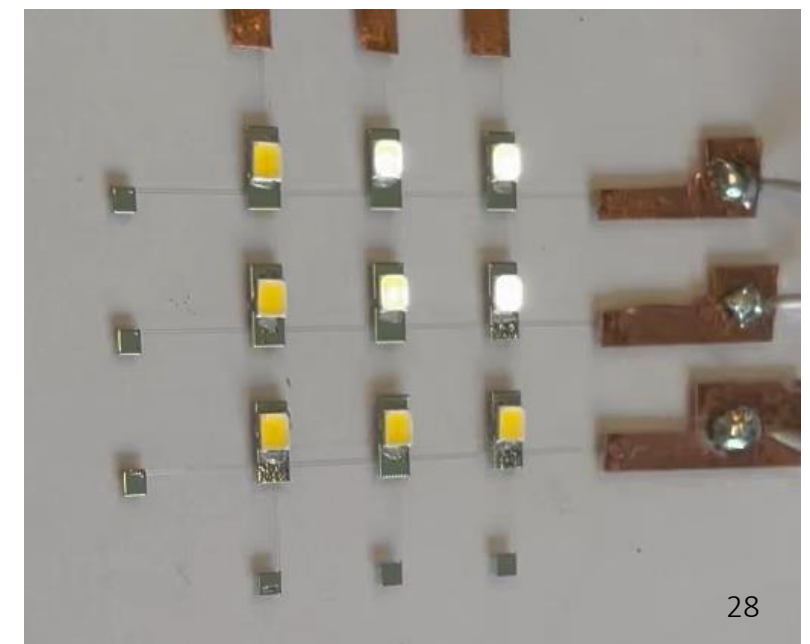
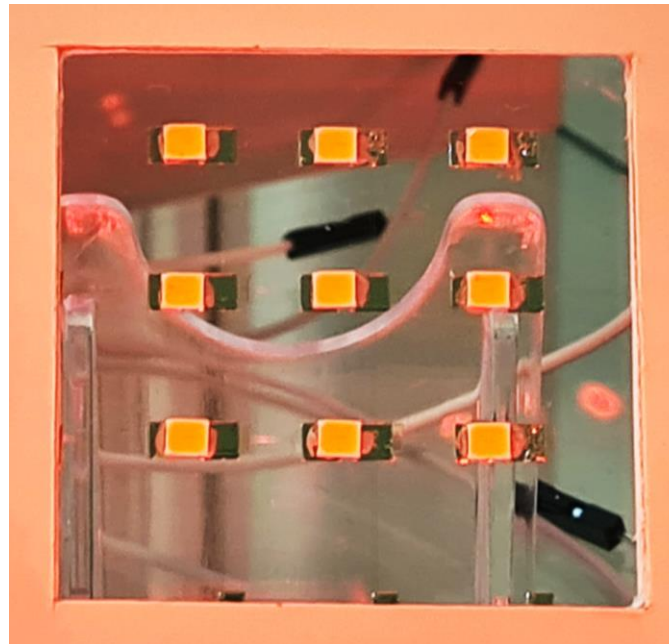
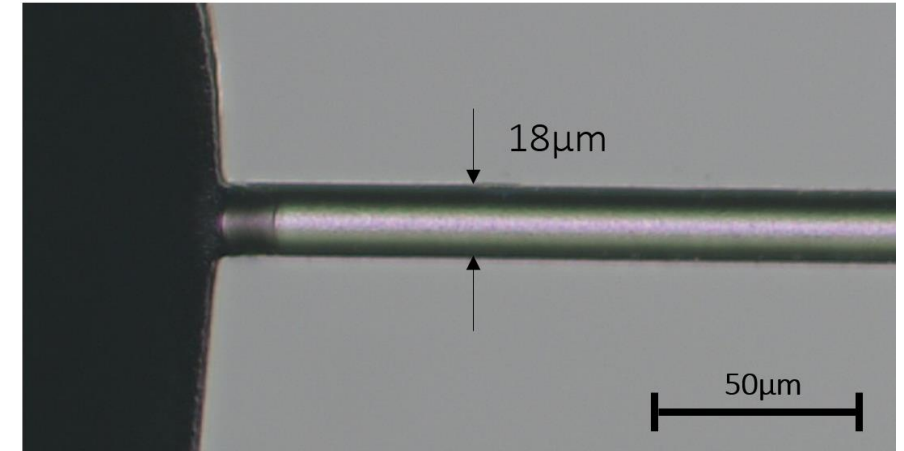
The presented demonstrator (a portrait of Albert Einstein printed using the UPD method) confirms the repeatability and stability of printing on large surfaces.



TRANSPARENT SILVER INTERCONNECTIONS



In cooperation with the Humbolt University in Berlin and Helmholtz Zentrum Berlin, XTPL printed very thin (less than 20 μm wide) conductive paths to power LEDs mounted using the surface-mount technology (SMT). The jointly created demonstrator is the first step to a wider project that will deliver a more complex structure. The demonstrator was made available for viewing at the Helmholtz Zentrum Berlin stand during the LOPEC 2022 exhibition and conference.



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

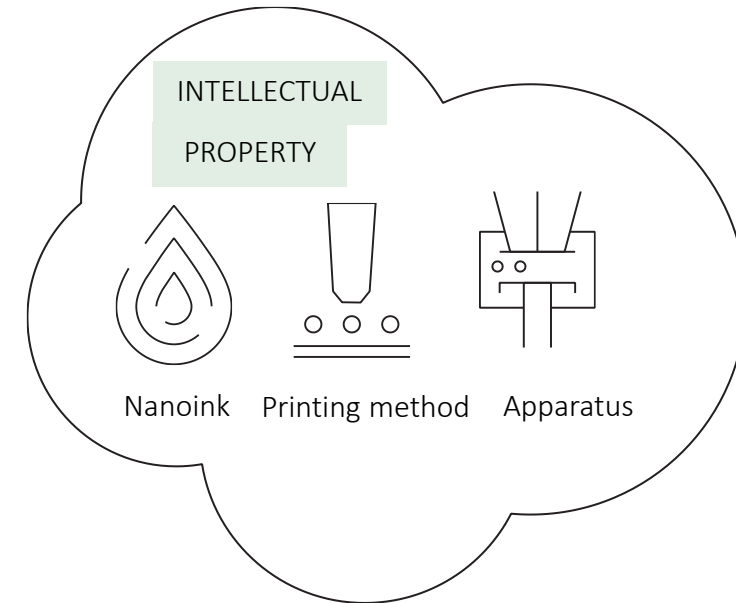
UPD process – patents describing the ultra-precise deposition process, or a device used for this process

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



4

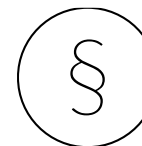
patent applications
filed in 2021

24

patent applications
filed in total

1

patent granted



Support from a international law firm

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

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



MARKET IMPACT

- XTPL activities and target markets are not among the ones which are heavily affected by COVID-19
- consumer electronics manufacture and sales have not been significantly impacted by the pandemic. However, the distribution channels will be more dynamically transitioning towards online sales
- COVID-19 does not impact the manufacturing trends related to miniaturization, more efficient use of materials, and desire to deliver more advanced functionalities to the customers
- we are in close contact with our partners and we are monitoring the situation on a continuous basis

IMPACT ON INTERNAL ACTIVITIES

- the Company is well prepared internally for remote work. Technological activities are executed continuously in our labs under appropriate safety restrictions
- XTPL is expanding the network of contacts with distributors on local markets
- the business collaboration with external partners is continued, with frequent e-mail contact, conference calls and experimental evaluation being executed
- however, the collaboration with asia partners has been severely limited
- production and delivery of inks and samples which are part of the evaluation programmes were not impacted
- good progress in vaccinating the team - most of the team is fully vaccinated

XTPL VIRTUAL INVESTOR DAY



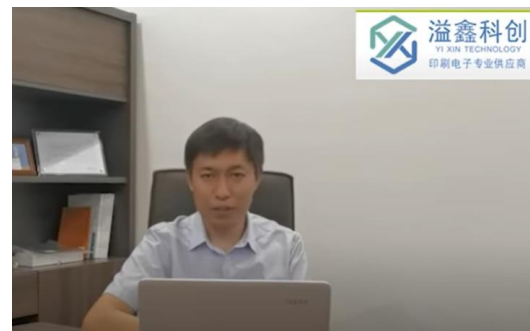
Basic information

- date: September 14, 2021
- number of participants: ~ 200 people
- form: live presentation with the XTPL Management Board and video materials with key employees, selected business partners as well as showing the company's assets and a Q&A session

Purpose of the event

- educating investors in the market on which the Company operates, as well as the purpose of its solutions, possibilities, potential and competitive advantages
- presenting the company's development path and the most important achievements in technology, product development, the importance of IP and the advancement of their commercialization processes
- presentation of key employees of the company who stand behind its success as well as the most important assets of the company where innovative solutions are implemented
- familiarization with selected business partners who support the commercialization of XTPL solutions

The recording is available on the **Strefa Inwestorów YouTube channel** titled: „Poznaj ekspertów od ultraprecyzyjnego druku elektroniki: Dzień Inwestora XTPL,, (content in Polish)



2022 – SUMMARY OF KEY EVENTS



2Q2022

- Signing an agreement with the American company nScript for the sale Ag Nanopaste CL85 developed by XTPL
- Completing the first stage of the technological phase with Nano Dimension and receiving the first tranche of contractual payment

1Q2022

- Commencing cooperation with the industrial partner Nano Dimension to develop a next generation conductive nanoink based on metallic nanoparticles for the printed PCB market and Additively Manufactured Electronics (AME)
- Starting a strategic cooperation with the University of Brescia in Italy (UniBs). The Company will cooperate with the local scientists for the next two years on the application of XTPL's technological solutions in the biosensor sector
- Expanding the international network of XTPL distributors to include the Indian company Vertex Global Solutions from Mumbai, and merconics from Germany
- A more than 4 EUR million grant obtained by an international consortium including XTPL S.A. under the EU's Horizon Europe program for the implementation of a technological project. The recommended grant amount allocated to XTPL is almost PLN 430 thousand. The project is to be implemented for two years after signing the grant agreement.
- Publishing revenue estimates for 2021
- Obtaining patent protection from the Japanese Patent Office

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 µm**.
- **platform character** – with application in many existing sectors of printed electronics
- IP regularly secured by expanding the patent cloud –**24 applications filed**

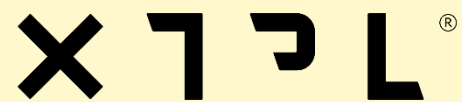
COMMERCIALIZATION

- 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

- first significant revenues from the sale of XTPL products - generating cash from operating activities
- securing financial liquidity and the ability to obtain subsidies (NCBR support)

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THANK YOU

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