



shaping global nanofuture

FINANCIAL RESULTS FOR H1 & Q2 2022

XTPL S.A.

September 22, 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**



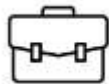
Founded in **2015**, based in **Poland** and USA



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



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



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



IP regularly secured by expanding the patent cloud - **25** patent applications and **3** patents granted



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



Effective CF management. Constantly **growing revenues** from the sale of **products**

AGENDA



1.

EXECUTIVE
SUMMARY

2.

FINANCIAL RESULTS

3.

SUMMARY OF
ACHIEVEMENTS

4.

SUMMARY
AND OUTLOOK

EXECUTIVE SUMMARY H1 AND Q2 2022



- ✓ Achieving revenue of **EUR 0.64** million from the sale of product and services in H1 2022 – a **21-fold increase y/y**
- ✓ Revenue of **EUR 0.44** million from the sale of products and services in Q2 2022 (**product sales for all of 2021**)
- ✓ Positive operating cash flows of **EUR 0.07** million in Q2 2022 + **EUR 0.3** million y/y

- Start and continuation of first collaborations with **industrial partners in the area of PCBs and semiconductors**, with **first payments** received
- Work on a total of **nine evaluations of technology for industrial implementations** with global players from the printed electronics sector
- Further development and commercialization of the Delta Printing System
- Start of a strategic cooperation on **biosensors** with an Italian university (UniBs)
- Signing the **first private label agreement** with nScript and 11 nanoink sales transactions
- Acquiring another **two international distributors** of XTPL solutions (Germany, India)
- Continuation of work on the development of the XTPL technology and **obtaining patent protection** in Japan and the United States
- More than EUR 4 million funding obtained by an international consortium including XTPL under Horizon Europe – **grant of nearly EUR 430 thousand approved for XTPL**
- Signing agreements on changes to the bond issue conditions

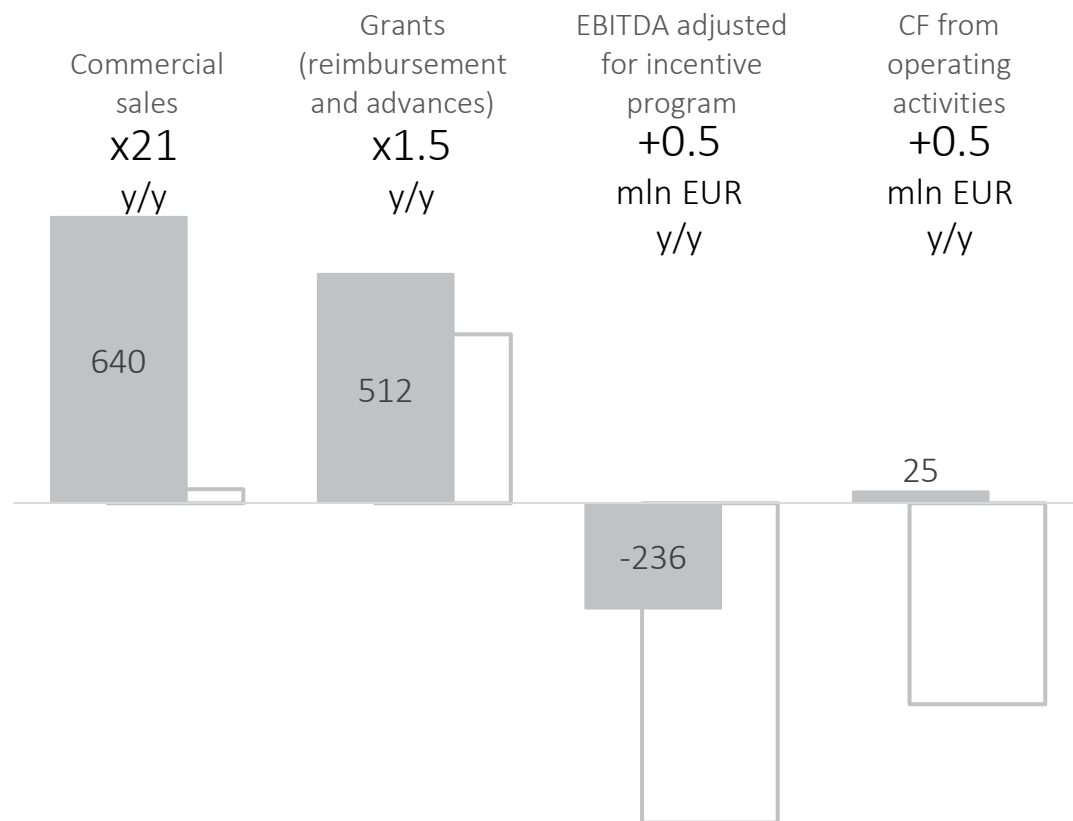
FINANCIAL RESULTS FOR H1 & Q2 2022

FINANCIAL PERFORMANCE – H1 | Q2 2022 SUMMARY

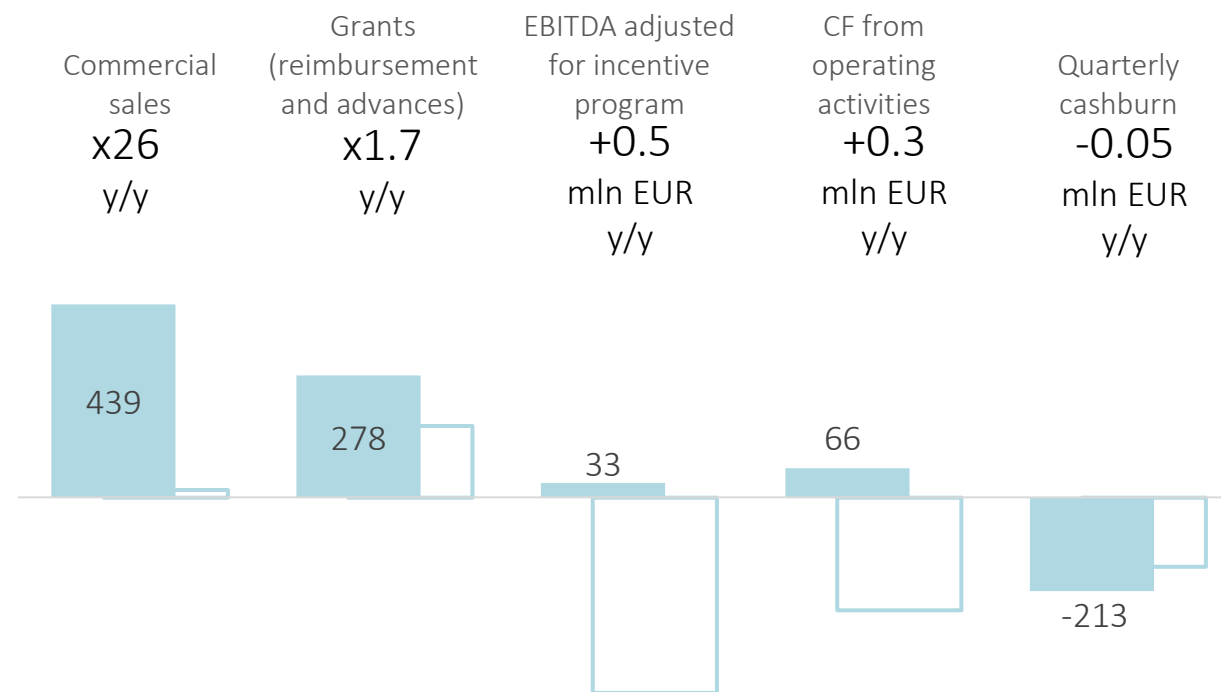


* figures in EUR thousand

■ H1 2022 □ H1 2021



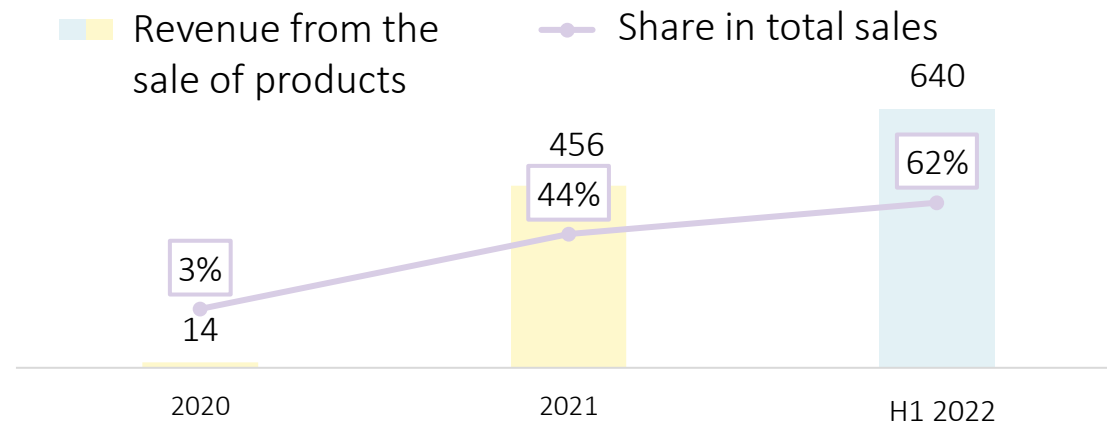
■ Q2 2022 □ Q2 2021



FINANCIAL PERFORMANCE – H1 | Q2 2022 SUMMARY

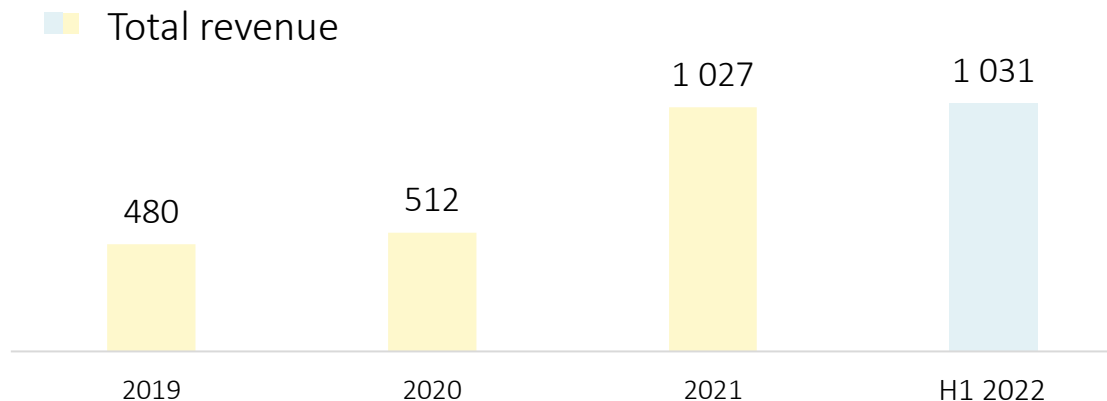


* figures in EUR thousand



EUR 0.64 million

Revenue from the sale of products and services
H1 2022
(142% of the 2021 figure)



EUR 1.03 million

Sales revenue
H1 2022
(102% of the 2021 figure)

- an upward trend in revenue from the sale of products and services triggered by the commercialization of the first two business lines – DPS printing devices and nanoinks
- a pronounced acceleration of revenues in 2022 alongside the commercialization of the third key business line related to industrial implementations
- strong business development whereby H1 2022 has already seen two-thirds of the revenue from the sale of products and services
- successful transition from an R&D-focused firm into a business that successfully commercializes its technologies and products
- self-financing potential enabled by the positive earnings trajectory, safe cash position and established partnerships

FINANCIAL PERFORMANCE – H1 | Q2 2022 SUMMARY



* figures in EUR thousand

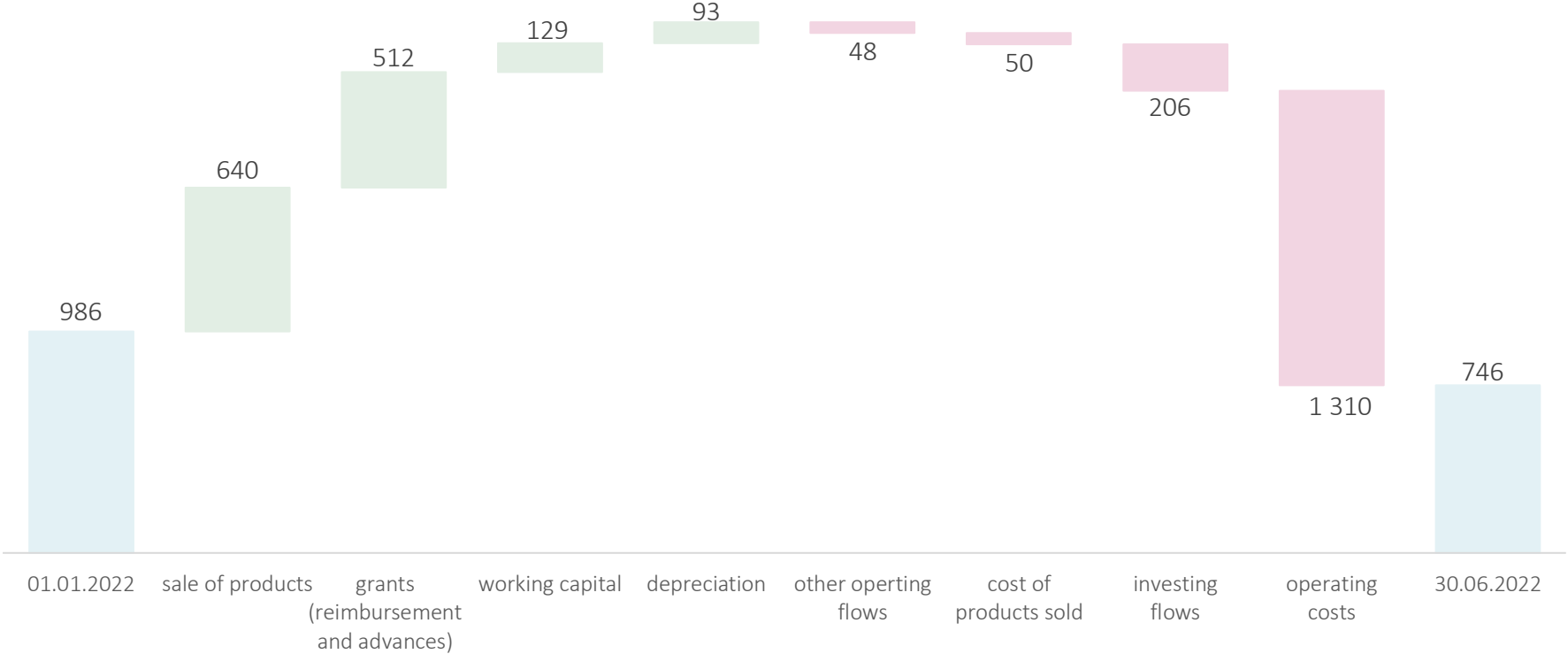
	H1 2022	H1 2021	Q2 2022	Q2 2021
Total revenues	1 031	164	682	13
Revenue from the sale of products	640	31	439	17
Grants (reimbursement and advances)	512	377	278	163
Operating costs	1 310	912	679	493
Incentive scheme	247	230	0	0
EBITDA	-483	-944	33	-444
EBITDA adjusted for the incentive scheme	-236	-714	33	-444
Cash flows from operating activities	25	-449	66	-257
CAPEX	-206	-336	-63	-187
Quarterly cashburn	-203	-146	-213	-158
	30.06.2022		31.03.2022	
Cash balance at the end of the period		746		803

- **21-fold increase in revenue from the sale of products and services** in H1 2022 and a **26-fold increase in Q2 2022** (Q2 alone saw sales at 98% of full-year sales for 2021) – revenues from the implementation of individual stages of industrial projects, incl. receipt the first tranche from Nano Dimension
- **Reducing the share of grants in total revenues** coupled with their effective acquisition
- Higher operating costs commensurate with the growing business volumes
- Recognition of the cost of the incentive scheme with no impact on assets or financial position
- Notable improvement in EBITDA in H1 y/y and **positive EBITDA in Q2 2022**
- CAPEX increase driven by continued business growth and development of XTPL solutions
- **Positive change in operating cash flows**

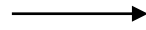
CASH FLOW



* figures in EUR thousand



XTPL GRANT PROJECTS



Q1 2022,
Q2 2022

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



Narodowe Centrum
Badań i Rozwoju



Q4 2020


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

Q2 2021

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: October 2020 – September 2023
- Project value: EUR 2.6 million
- Grant: EUR 1.7 million

A hand is shown holding a transparent wireframe globe. Overlaid on the globe is a map of the world, with the continents of Africa, Europe, and Asia visible. The map uses a color scheme of white for landmasses and blue for oceans. The wireframe globe is composed of a network of thin white lines forming a spherical shape. The hand holding the globe is positioned at the bottom, with fingers visible. The background is a soft, out-of-focus grey.

SUMMARY OF H1 & Q2 2022 ACHIEVEMENTS

COMPANY DEVELOPMENT PHASE



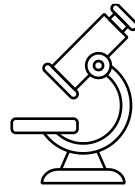
NEXT STEP

CURRENT PHASE

INITIAL TECHNOLOGY DEVELOPMENT PHASE

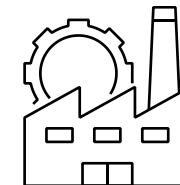
- development of the underlying technology
- technology evaluation by industrial clients and academic R&D centers

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

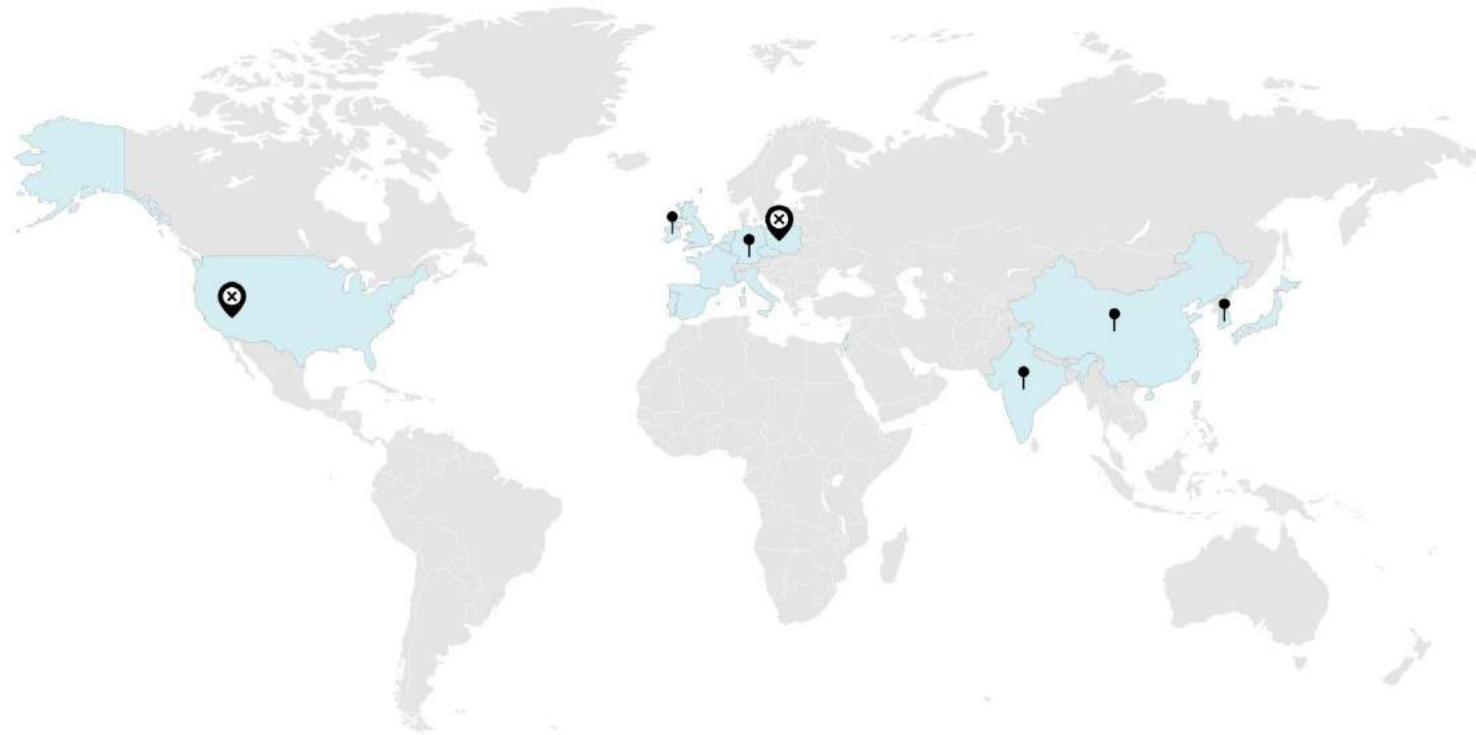


- integration of **XTPL Printing Module** to industrial equipment
- continuous supply of ink and nozzles + cartridges

XTPL
INSIDE



GLOBAL RANGE OF ACTIVITY



 Siedziby XTPL  Sprzedaż produktów XTPL  Dystrybutorzy XTPL

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 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)

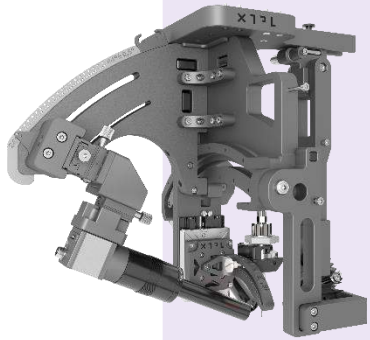
XTPL intends to introduce its technology to the markets of Great Britain and Ireland. The Company started cooperation with Semitronics Sales Ltd, a highly-specialized distributor in this region. Thanks to the cooperation with Semitronics, XTPL technology and products will continue to gather momentum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

MERCONICS* (Germany)

Merconics will promote XTPL technology and products in selected European countries, including in Germany, France, Austria and Switzerland. It is a European renowned distributor active in the area of advanced manufacturing and analytical equipment for the semi-conductor 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.



**HIGH-RESOLUTION
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**

- XTPL technology demonstrator
- stand-alone R&D and prototyping system
- current geographic locations of Delta Printing System clients: Germany, Poland, UK, Italy and China



**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

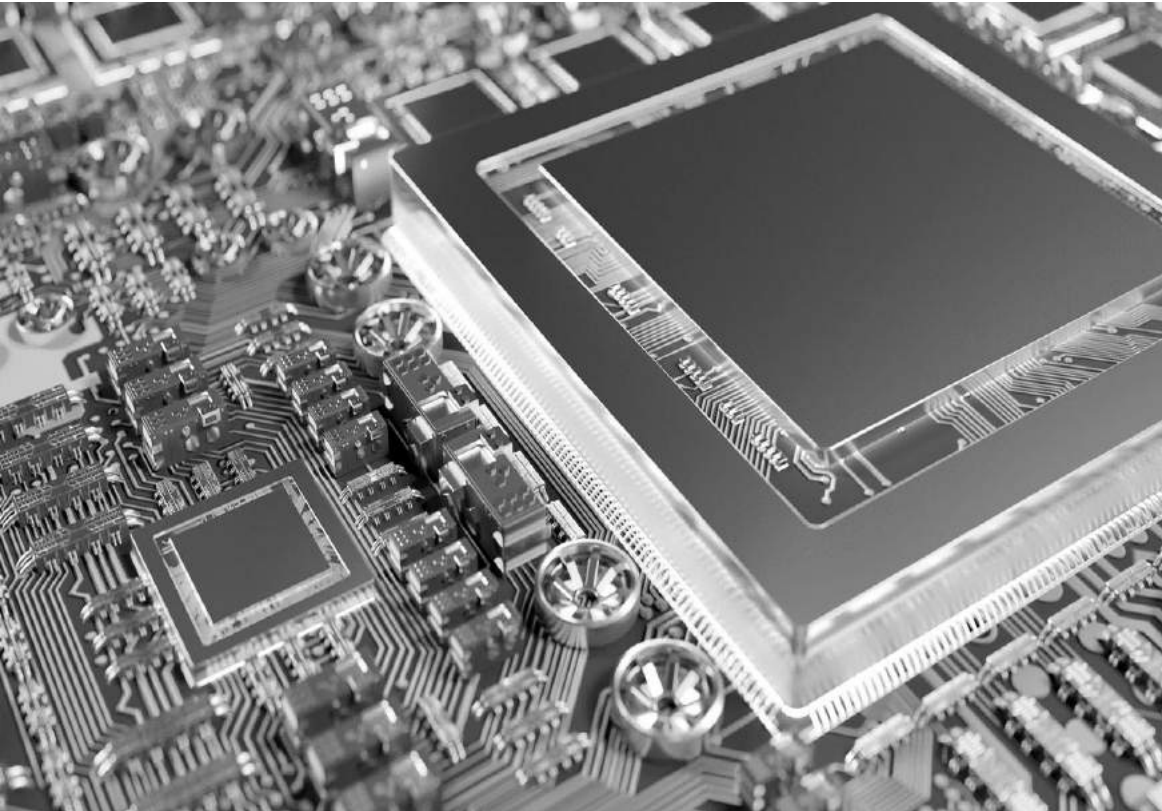
CURRENT INDUSTRIAL PROJECT PIPELINE

(only projects in Stage 2 and above shown)



PROJECT NAME	INDUSTRY AND GEOGRAPHY	PARTNER / END-USER	STAGE 0	STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 5
			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						
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.						

ENTERING THE KEY STAGE OF INDUSTRIAL IMPLEMENTATION IN THE SEMICONDUCTOR AREA FOR A PARTNER FROM TAIWAN



- On 22 July 2022 XTPL confirmed acceptance of an order for the delivery of a printing module for industrial integration and will deliver its technology in the form of a printing module to build a prototype of an industrial device for applications in **semiconductor** production.
- The order was received from the Company's Partner: a Taiwan-based global manufacturer of specialized equipment for the production of semiconductor components.
- The XTPL printing module will be an essential element of the industrial device prototype for advanced packaging applications in the semiconductor industry.
- The Partner's decision to buy the printing module and start the construction of a prototype industrial device was taken following a complex process consisting of three stages of evaluation of XTPL's technological solutions in cooperation with the Partner in Taiwan (equipment manufacturer) and a Client, also Taiwan-based – a leading global manufacturer of semiconductors (End-Client).
- The complex evaluation process with the Partner took about 18 months to complete.
- Sales revenue connected with the order will be recognized by the end of 2022.

XTPL is moving closer to having its technological solutions deployed in the mass production of next-generation electronics

CONTINUATION OF THE COLLABORATION WITH NANO DIMENSION IN THE FIELD OF PCB - 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
- In April 2022, the first stage of the technological phase completed and the first tranche of payment
- In July 2022, the second stage of the technological phase completed and the second tranche of payment

*"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 (HIPEDS®) on our AME solutions" he added.*

DELTA PRINTING SYSTEM: COMERCIALISATION AND PIPELINE H1 2022



H1 2022	H1 2022	
OFFER MADE TO A POTENTIAL CLIENT	DEMO PROJECTS AND NEGOCIATIONS	SALES CONTRACT SIGNED IN TOTAL*
13	20	7
Delta Printer price: approx. EUR 170-200 thousand		

The development and commercialization of DPS devices in H1 2022 brought further sales in Q3 2022 to the **Humboldt-Universität in Berlin** and **China**

Current XTPL Delta Printing System users:

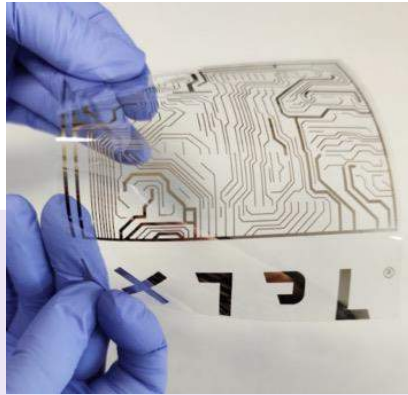


Until the first industrial implementation, the company decided to sell its products in the form of a printer and nanoinks in order to start generate cash flows from operating activities



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

NANOINKS: COMERCIALISATION AND PIPELINE H1 2022

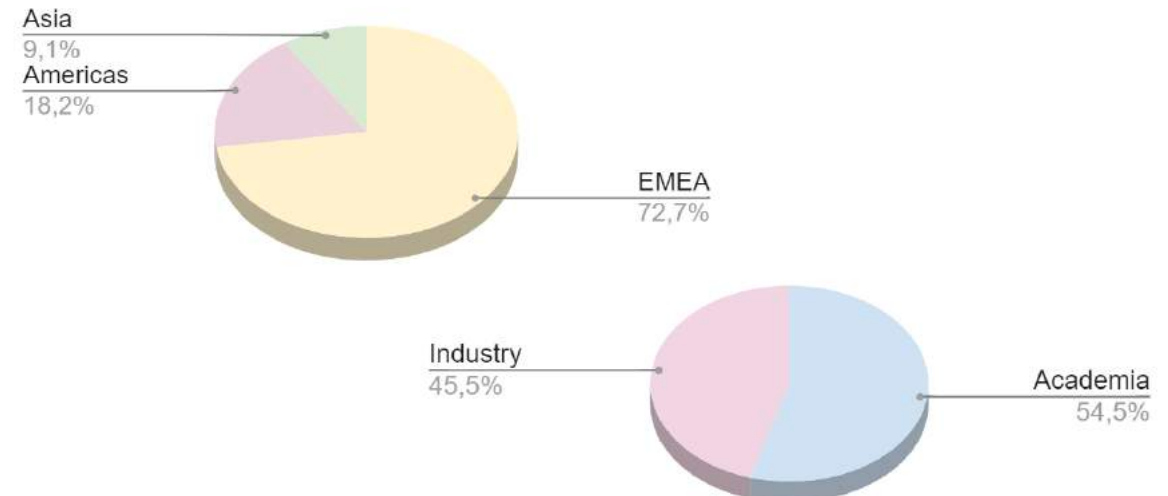


Key milestones:

- **11 independent orders** from EMEA region, USA and Asia
- **37 orders** from the beginning of the commercialization process
- **5 returning customers** from the beginning of the ink commercialization
- new countries on the sales map: the **Netherlands, Poland, France, Taiwan**
- 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
- **copper and gold inks** under development

OFFER MADE TO A POTENTIAL CLIENT	SAMPLE SENT TO POTENTIAL CLIENT AND NEGOTIATIONS	SALES CONTRACT SIGNED AND PRODUCT DELIVERED
39	5	11

Ink sales H1 2022



SIGNED FIRST PRIVATE LABEL AGREEMENT WITH NSCRYPT



- 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 – H1 2022 SUMMARY



Key achievements and progress in research & development in H1 2022

- Development of the XTPL UPD technology by **elaborating a procedure of sintering the printed structures obtained by dispensing the CL85 and CL85-Flex ink**. Sintering is performed using a laser or flash lamp with low temperature drying (even at 80°C) and can take place on a wide range of flexible and glass substrates, as well as substrates with metallic electrodes. The aim is to achieve the highest possible electrical conductivity under the given conditions that guarantee the safety of other elements of microelectronic systems.
- **Completing two stages 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 XTPL printing system and introduction of the possibility of automatic deposition of features on surfaces in 3D**, including printing on the edge with substrate rotation.
- **Development of software controlling the Delta Printing System** – the ability to import designs for printing in CAD format, commonly used in industry

In 2022, XTPL actively participated in **14 international industry events**:

- innoLAE 2022 – UK (Largest Online Gathering of the Printed, Hybrid, InMold, 3D, R2R & Textile Electronics Community) – online
- TechBlick Lounge-Exhibition – online
- LOPEC 2022 – Germany
- Smart Systems Integration 2022 – France
- SMTconnect – Germany
- Display Week – United States
- ImpactCEE – Poland
- IEEE 72nd Electronic Components and Technology Conference – USA
- 22nd International Conference & Exhibition - Switzerland
- Łukasiewicz Innovatorium – Poland
- Chemnitzer Seminar 2022 – Germany
- Innovations Festival: Printed, Hybrid, 3D, InMold, Textile Electronics – online
- NANOTEXNOLOGY 2022 – Greece
- IEEE FLEPS 2022 – Austria

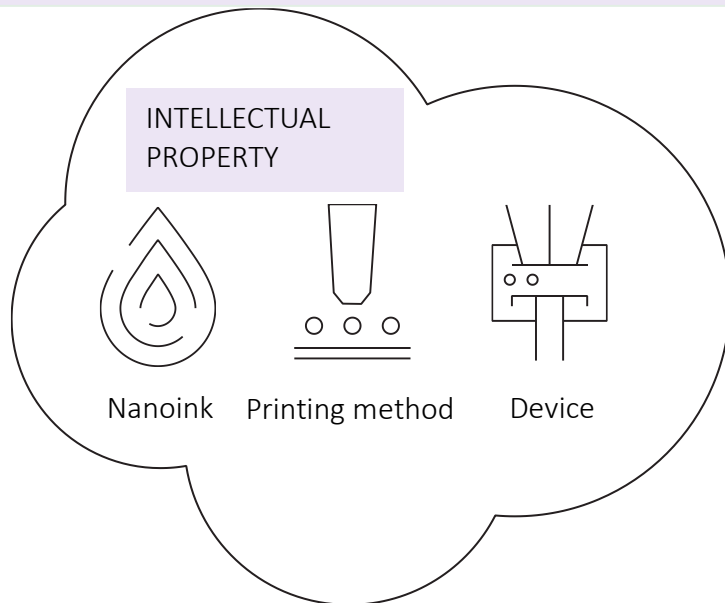
The events are an excellent opportunity to showcase the unique XTPL technology to leading representatives of industry and science from around the globe.

INTELLECTUAL PROPERTY PROTECTION H1 2022



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 patent authority.



H1 2022: obtaining patent protection from the Japanese Patent Office (January 2022) and from the US Patent Office (May 2022) for two different methods of forming conductive lines

Q3 2022: another (third) patent obtained, and 25th patent application filed (with the United States Patent and Trademark Office)

25

patent applications
filed in total

3

patent granted
in total

Support from international law firms

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

PATENT GROUPS: APPLICATIONS FILED AND PATENTS GRANTED

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

WAR IN UKRAINE AND 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



SUMMARY AND OUTLOOK

SUMMARY AND OUTLOOK



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.

FINANCE

- **constantly growing revenues from the sale of products** - over 20-fold increase y/y and positive change in operating cash flows in Q2 2022
- safe level of cash, secured financial liquidity and the ability to obtain subsidies (NCBR support, HORIZON program)

COMMERCIALIZATION

- a consistent commercialization strategy - **sale of technological solutions products and industrial implementation projects**
- **9** technology evaluations for industrial implementations with global players - the second stage of the technological phase completed with **Nano Dimension** and move to stage 4 to deliver the XTPL industrial integration module for the **Partner in Taiwan**

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

STRATEGY

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

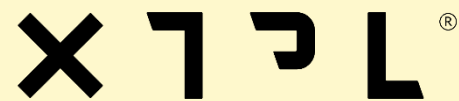
TECHNOLOGY

- **revolution** - enabling production of complex and complicated devices using efficient, cost-effective and scalable printing methods.
- **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 (resolution of 1 µm)
- **platform character** – with application in many existing sectors of printed electronics
- IP regularly secured by expanding the patent cloud - **3 patents granted** and **25 applications**

ORGANIZATION

- global operations
- a modern business approach thanks to an interdisciplinary team with extensive expertise and experience – **over 40 people in Poland** and **USA**
- support and trust of significant investors, with XTPL executives in the shareholding structure

CONTACT FOR INVESTORS:
investors@xtpl.com



XTPL S.A.
Stabłowicka 147
54-066 Wrocław, Poland
xtpl.com



THANK YOU

DISCLAIMER



This presentation has been prepared by XTPL S.A. ("Company") for the sole purpose of giving an introduction on the business of the Company.

The presentation:

- *has selected information; it does not give a comprehensive description of business or financial analysis of the Company;*
- *is not to be taken to give business, financial projections, or forecasts for the Company;*
- *must not be taken to give any express or implied warranty as to accuracy or completeness of information in it by either the Company, or any members of the management, which will not now or in the future be responsible or liable for it;*
- *may have predictions which are not to be taken to be warranties of any kind, whatsoever, to do with financial results.*

Neither the Company nor representatives of it are obliged to provide further information, whether updates, corrections or otherwise, after the date of this presentation.

The Company must consent to any copying, distribution, or dissemination of this presentation. Those persons that seek to do so in other jurisdictions must consider the law, or regulations, that could restrict being able to do so and those persons must comply with that law, or regulations.

This presentation is not to be taken to be a solicitation, invitation, or offer, of any kind, whatsoever, by the Company or representatives of it, to buy or sell any securities or related financial instruments of the Company, or any of the assets, business, or undertakings described in it.

A recipient is not to take this presentation to be advice on the law, taxation, accounting, investing, or otherwise any advice, whatsoever, on any financial instrument, whatsoever.

The presentation is not an investment recommendation