

XTPL®



# XTPL NEWSLETTER

NOVEMBER 2021



TABLE OF CONTENTS

FROM THE MANAGEMENT BOARD >

BUSINESS AND COMMERCIALIZATION >

TECHNOLOGY AND DEVELOPMENT >

INTELLECTUAL PROPERTY PROTECTION >

INVESTOR RELATIONS >

ADDITIONAL INFORMATION >

CONTACT >

## Ladies and Gentlemen,



We are pleased to present this refreshed newsletter summarizing the events of recent months. It has been an exciting and busy time for XTPL. We have achieved important milestones in the development and evaluation of our technology for industrial clients, as well as in the commercialization of our products. The ongoing evaluation processes confirm our market advantages. We believe that the XTPL technology will be used to market new generation electronic devices that are being designed as we speak

We have divided the information contained in this newsletter into several sections: Business and Commercialization, Technology and Development, Intellectual Property Protection, Investor Relations, Calendar, Contact. Each section will give you a summary of XTPL's key achievements over the last nine months. We hope you will like this format and enjoy reading the newsletter. If you have any questions, please do not hesitate to reach out to our investor relations team. Contact details are provided on the last page of the newsletter.

Kind regards,  
Management Board of XTPL S.A.

# BUSINESS & COMMERCIALIZATION

4Q  
2021

The last quarter of this year we started with positive information about the selection our offer by the Łukasiewicz Research Network - PORT Polish Center for Technology Development in the procedure for the delivery of a system for the integration of raw materials in photonic applications. The contract was signed on November 3.

THE PORT ŁUKASIEWICZ RESEARCH NETWORK PURCHASES THE DELTA PRINTING SYSTEM FROM XTPL S.A.

XTPL S.A., a global supplier of breakthrough nanoprinting solutions for the world's electronics market, has entered into a sales agreement with the Łukasiewicz Research Network – PORT Polish Center for Technology Development. The agreement relates to the sale and delivery of a prototyping printer – the Delta Printing System.

> [READ MORE](#)

[↓](#) [ESPI CURRENT REPORT NO. 17/2021 OF THE OCTOBER 4, 2021](#)

[↓](#) [ESPI CURRENT REPORT NO. 19/2021 OF THE NOVEMBER 3, 2021](#)

A few days later: on November 5, 2021 we confirmed another agreement for the sale of the Delta Printing System printer. The device was purchased by the University of Glasgow in Scotland for the Bendable Electronics and Sensing Technologies (BEST) research team led by prof. Ravinder Dahiya, scientist and researcher in the field of electronics and nanoengineering.

#### XTPL SELLS DELTA PRINTING SYSTEM TO THE UNIVERSITY OF GLASGOW, SCOTLAND

The Delta Printing System, which has just been sold by XTPL, is already the fourth device commercialized this year. The printer will be delivered to the Bendable Electronics and Sensing Technologies (BEST) research group. The institute has scientists from over 25 countries specializing in electronics, electrics, mechanics, chemistry, physics, and medicine. This multidisciplinary group conducts fundamental research into high mobility materials based on flexible electronics, flexible electronic skin and wearable systems, and their application in robotics, prosthetics and healthcare. They also look for innovation, for example in the area of rollable sheets of solar cells. Involved in the process of making the XTPL technology available to the BEST group was Semitronics Ltd., the distributor of the Company's solutions in the British market.

> [READ MORE](#)

↓ [ESPI CURRENT REPORT NO. 20/2021 OF THE NOVEMBER 5, 2021](#)

3Q  
2021

July 2021 was a very productive time. We started the month by commercializing the second Delta Printing System, and then we established cooperation with Semitronics Sales Ltd, a distributor of our technology and products in the region of Great Britain and Ireland.

#### XTPL S.A. SELLS THE DELTA PRINTING SYSTEM DEVICE TO THE KARLSRUHE INSTITUTE OF TECHNOLOGY (KIT)

XTPL entered into an agreement with the German Karlsruhe Institute of Technology (KIT) for the sale of the Delta Printing System for R&D and prototyping. The printer is to be delivered to the Light Technology Institute (LTI), a unit within the KIT, by the end of 2021.

> [READ MORE](#)

#### XTPL S.A. TO STRENGTHEN ITS PRESENCE ON THE BRITISH ISLES

Thanks to the cooperation with Semitronics, XTPL technology and products will find increasingly wider application among innovative entities: at R&D centers, scientific institutions and technological corporations operating in the nanotechnology, printed electronics and semiconductor segments in Great Britain and Ireland. The partnership will also increase awareness and visibility of the Company's innovative solutions among global market players.

> [READ MORE](#)

2Q  
2021

One of the highlights of the second quarter was obtaining a grant of over PLN 7.6 million from the National Center for Research and Development (May 2021: signing the grant agreement), and starting cooperation with Yi Xin Technology, a distributor for the Chinese market.

#### XTPL TO RECEIVE FUNDING OF OVER PLN 7.6 MILLION FROM THE NATIONAL CENTER FOR RESEARCH AND DEVELOPMENT (NCBR)

The project covered by the sought funding relates to the development and implementation of an innovative technology for printing ultra-thin (micrometric) conductive structures on 3D substrates. This method of technological printing will be applied in the printed electronics sector, including for the manufacture of touch panels, displays, and PCBs.

> [READ MORE](#)

#### XTPL S.A. JOINS FORCES WITH A NEW DISTRIBUTOR TO EXPAND ITS OPERATIONS IN CHINA

XTPL is expanding its presence in the Chinese market by starting cooperation with Yi Xin Technology, which will distribute the Company's technological solutions in China. Established in 2011, Yi Xin Technology specializes in additive technologies and the search for innovative solutions dedicated to the printed electronics segment. 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.

> [READ MORE](#)



1Q  
2021

The beginning of the year heralded a breakthrough enabled by the work we did in previous years. Thanks to numerous recommendations and efforts put into promoting the XTPL technology in the Asian market, we have acquired the first distributor in South Korea: Bandi Consortia

#### XTPL S.A. ACQUIRES A BUSINESS PARTNER IN SOUTH KOREA

XTPL S.A 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. Bandi Consortia was founded by highly experienced experts in semiconductors, displays and management of commercialization process of new technologies.

> [READ MORE](#)

# TECHNOLOGY & DEVELOPMENT

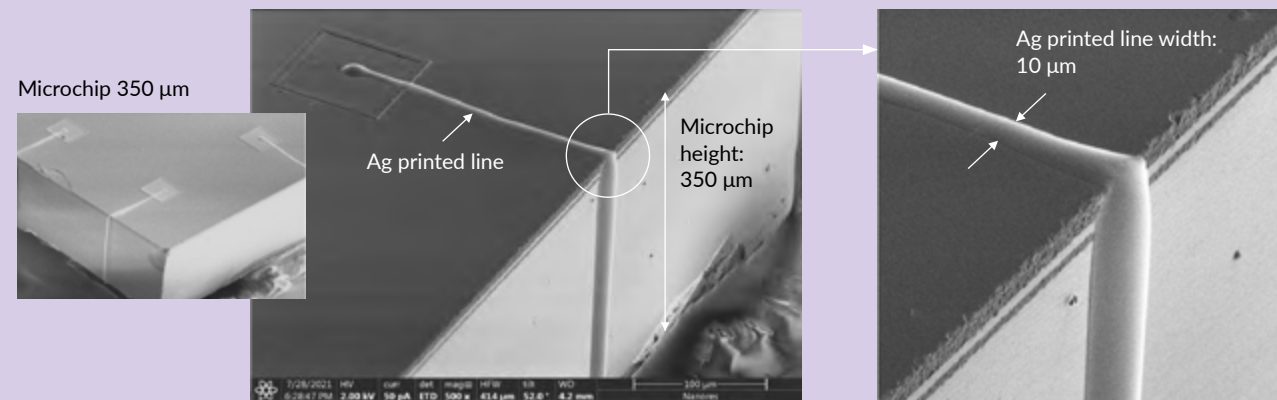
XTPL is a company from the deep tech segment. This means that our proprietary technology and the products based on and adapted to that technology are the source of our market advantage and value proposition. In order to remain competitive in the industry, it is essential to constantly monitor emerging trends. For this reason, we carry on improving our technology and products so that our evaluation processes can meet many advanced expectations of our clients. R&D is and will be a permanent and essential part of our operations.

In 2021, we achieved many important milestones in terms of development of our products and solutions.

2Q  
2021

### PRINTING CONDUCTIVE CONNECTIONS ON A STEP (E.G. MICROCHIP) WITH A HEIGHT OF 350 $\mu\text{m}$

Achieving the capability of printing on heterogeneous substrates significantly extends the scope of application of the XTPL technology, and opens up new prospects for its use in the currently designed new generation electronic devices. This solution is an excellent example of how XTPL fits with and responds to the prevailing trends in the printed electronics market, one of them being the search for new forms and properties of consumer electronics, including 3D shapes.



## DEVELOPMENT OF THE FORMULATION OF COPPER PASTE AND GOLDEN INK

The range of XTPL conductive inks is connected with the need to diversify the Company's revenue streams. On top of that, the extensive product range will help in attracting new clients and improving XTPL's market position.

1Q  
2021

DEVELOPMENT OF AG INK FORMULATIONS DEDICATED TO VARIOUS PRINTING TECHNIQUES, NOTABLY THE XTPL INKJET INK IJ36 TECHNIQUE

The improved ink formulation ensured high printing stability and efficiency and reduced nozzle clogging. It allowed a competitive level of electrical conductivity to be maintained (over 40% of bulk Ag conductivity), and ensured that the ink can be used on various substrates (including Kapton 500HN, PET, PEN, PEI and glass substrates).

EXTENSION OF THE REPLACEABLE NOZZLE'S LIFE TO MORE THAN 60 DAYS

Our proprietary XTPL printing system allows its users to benefit from a demonstrated best-in-class printing stability: sustained 8 day of continuous printing, and up to 60 days of on and off printing with XTPL CL85 conductive silver nanopaste.

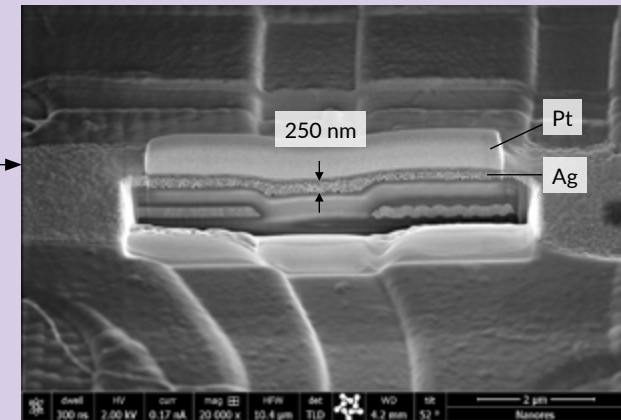
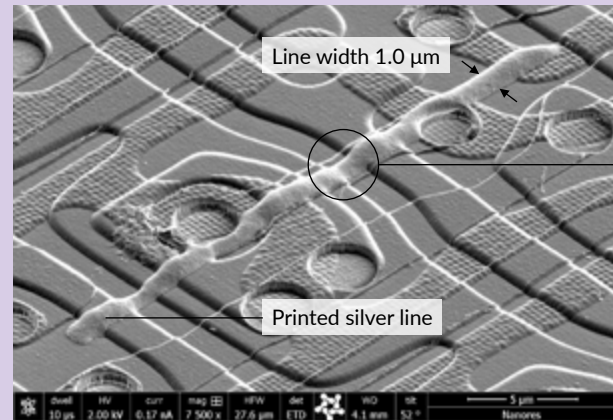
FILLING OPENINGS IN SEMICONDUCTOR STRUCTURES – CONNECTIONS BETWEEN LAYERS IN ADVANCED INTEGRATED CIRCUITS – TSVS (THROUGH SILICON VIAS), AND FILLING GAPS IN INSULATING LAYERS CREATED AT THE PRODUCTION STAGE

The improvement of this solution enabled: reduction of the number of printing processes, and deposition of the ink directly into the opening (also deep and narrow) while maintaining control over the volume of the deposited material (in the fL scale). Both conductive and insulating inks can be used to fill the openings.

DEVELOPMENT OF THE TECHNIQUE OF PRINTING FEATURES UP TO 1  $\mu\text{m}$  WIDE

In the course of our development efforts, we achieved a very high degree of repeatability of 1  $\mu\text{m}$  wide conductive lines printed on the electrical layer of high-resolution OLED displays. These substrates have very complex topography due to the high number of layered conductive paths manufactured during the production process.

The confirmed technological capability of depositing 1  $\mu\text{m}$  wide conductive lines, unachievable before by any other method, in a repeatable manner increases technological readiness of the XTPL solution to repair open defects in electrical structures of new generation OLED displays.



Technology and new product development is one of the pillars of our business. Our goal is full commercialization and implementation of the UPD technology for industrial use. For this reason, we find it important to appear at industry events: conferences, fairs and symposia. This not only helps promote XTPL and build awareness of our solutions, but above all allows us to establish a network of contacts and business relations.



27/10/2021

Flex China

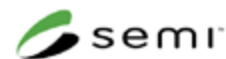


21/09/2021

Pro Flex



08/09/2021

30th Economic Forum  
in Karpacz

03/09/2021

Connecting Heterogeneous  
System Summit

27/08/2021

21st International Meeting  
on Information Display -  
IMID 2021

06/07/2021

NANOTECHNOLOGY 2021



23-24/06/2021

Ultra-precise printing  
of micrometre size  
interconnections - webinar

16-17/09/2021

Tailoring conductive products  
for ultra-precise and conventional  
printing technologies - webinar

02/06/2021

International Conference  
on Display Technology

16-21/05/2021

Display Week



11-12/05/2021

Printed, Flexible, Hybrid,  
& InMold Electronics

29/04/2021

Smart Systems Integration



29/04/2021

The Ceramic Interconnect  
and Ceramic Microsystems  
Technologies (CICMT)

15/04/2021

Inter Nano Poland



24/03/2021

LOPEC



16-17.02.2021

Rapid prototyping for microelectronics  
applications - webinar

During the Display & Touch Industry Conference 2021 (DTIC 2021), one of the most important industry conferences for display manufacturers in China, our technology was recognized and honored with a prestigious award. At the event, XTPL was represented by Yi Xin Technology, the distributor for China and Hong Kong.



#### XTPL TECHNOLOGY AWARDED IN CHINA

XTPL was awarded as “The most valuable brand of an optoelectronic product” and “The most valuable brand of materials for the production of optoelectronic components” during the Display & Touch Industry Conference 2021 (DTIC 2021), one of the major industry conferences for display manufacturers in China. The Company’s technology was presented by the distributor Yi Xin Technology.

The event took place in Ningbo, China at the end of April this year. It was attended by nearly 600 key representatives of Chinese market suppliers of materials and equipment for the production of optoelectronics, including: Visionox, BOE, Changyang Technology, Jizhi Technology, Lumilan, Xi’an Jiaotong University (Simoway), TA Instruments, Lipper Technology, Long Innovation Materials, Kaixinsen, Dongcai Technology, Nuofei Nano, Tiancai Innovation, Saiwu Technology and Tongli Optoelectronics.

> [READ MORE](#)

# INTELLECTUAL PROPERTY PROTECTION

For any deep tech company, protection of its intellectual property helps build its value and business position in commercialization processes. For this reason, when we see a major breakthrough potential and a major significance of our invention, we decide to patent it. The patenting process is very long, so it is very important to ensure that IP protection starts from the moment the patent application is accepted and registered by the patenting office. Below you can read about the most important selected patent applications submitted this year.



4Q  
2021

#### XTPL S.A. APPLIES FOR A PATENT RELATING TO A NEW METHOD OF PRINTING CONDUCTIVE STRUCTURES FOR THE ELECTRONICS INDUSTRY

The conductive mesh printing solution developed by XTPL is unachievable by any other method currently in use. Composed of longitudinal and transverse conductive lines, the mesh is used to create transparent conductive layers that do not absorb light and can be used as electrodes, for example in OLED displays.

> [READ MORE](#)

2Q  
2021

#### XTPL S.A. HAS SUBMITTED A PATENT APPLICATION CONCERNING PRECISE FILLING OF MICROMETRIC CAVITIES WITH POLYMER

The method is particularly important in the production of modern semiconductor devices. Its advantage results from the fact that the cavity is filled in a homogeneous and precise manner (without spilling), and that no cracks are formed in the process. The XTPL printing system can be used to perform the filling.

↓ [ESPI CURRENT REPORT NO. 8/2021 OF THE JUNE 2, 2021](#)

### XTPL S.A. EXPANDS ITS PATENT CLOUD AND SUBMITS ANOTHER APPLICATION

The patent application relates to the XTPL-developed method of checking geometric parameters of the cartridge that is a component of the printing device created by the Company.

> [READ MORE](#)

# INVESTOR RELATIONS



3Q  
2021

The end of the third quarter is traditionally the time of publication of stock exchange reports summarizing the first 6 months of the year. We had the opportunity to present our achievements and financial results to you during the investor meeting held at the end of September.

XTPL S.A. SUMS UP THE FIRST SIX MONTHS OF 2021: CONTINUED COMMERCIALIZATION AND A GRADUAL INCREASE IN PRODUCT SALES

> [READ MORE](#)

↓ [H1 2021 REPORT](#)

Shortly after the publication of the half-yearly report, we also received an update from Stifel AG regarding the recommendation for XTPL shares.

IN ITS UPDATE NOTE OF 30 SEPTEMBER 2021, STIFEL AG MAINTAINED THE “BUY” RECOMMENDATION FOR XTPL SHARES WITH A PRICE TARGET OF PLN 225

Stifel AG started issuing recommendations for XTPL in February 2020. In the seven analytical reports prepared so far, a “buy” recommendation with a price range of PLN 210–225 was established and sustained.

The company was valued using the discounted cash flow (DCF) approach. Documents issued by Stifel AG for XTPL S.A. are sponsored disclosures.

> [RECOMMENDATION HISTORY](#)

On 14 September this year, we had the great pleasure to meet you during the XTPL Investor Day, which we organized online together with the Strefainwestorow.pl portal. We would like to thank everyone who joined us at that event.

THE ULTRA-PRECISE DEPOSITION TECHNOLOGY RESPONDS TO THREE GLOBAL TRENDS FACING ELECTRONICS TODAY – SUMMARY OF THE XTPL INVESTOR DAY

> [READ MORE](#)

EQUITY FORUM CONFERENCES ONLINE

We participated in two virtual Equity Forum Conferences in 2021: May 17-19 Spring edition and September 6-7 Fall edition. As part of the events, we held numerous meetings with foreign investors and analysts. It was a great opportunity to present the progress in our products commercialization and XTPL technology, and for new investors also get to know the company's activities.

The company was represented by Dr. Filip Granek, founder and CEO of XTPL, and Jacek Olszański, CFO of XTPL.

The Equity Forum Conference is one of the biggest capital market conference in Germany and offers the opportunity to engage in a dialog about current market developments, innovations and future trends.

> [READ MORE](#)

2Q  
2021

In the second quarter, we provided you with a financial report for the first three months of 2021, as well as the annual report for 2020.

SUCCESSFUL FIRST QUARTER OF 2021 FOR XTPL S.A.

> [READ MORE](#)

↓ [PUBLICATION OF THE Q1 2021 REPORT](#)

XTPL S.A. SUMMARIZES 2020

> [READ MORE](#)

↓ [2020 ANNUAL REPORT](#)

June saw another edition of the #GPW Innovation Day conference. This cyclical event organized by the Warsaw Stock Exchange and addressed to individual and institutional investors, attracts a lot of interest from the market.

A RECORD OF XTPL'S PRESENTATION AT THE #GPWINNOVATION DAY (06.2021) IS AVAILABLE ON THE YOUTUBE CHANNEL OF THE WARSAW STOCK EXCHANGE.

> [SEE THE VIDEO](#)

In April, we became part of the Łukasiewicz INNOVATOR Index, which brings together the most innovative companies on the Warsaw Stock Exchange.

ON 12 APRIL, THE WSE IS TO LAUNCH A NEW INDEX

Which is to promote innovative companies. The index is a joint initiative of the Łukasiewicz Research Network and the Warsaw Stock Exchange (source: parkiet.com).

> [READ MORE](#)

50.60 PLN

-3.62%

2021-11-17

12:58:40

SHARES PRICE

## RESULT PRESENTATION

For H1 2021

[↓](#) DOWNLOAD

DOWNLOAD

25 NOV  
THU

INVESTOR'S CALENDAR

## PUBLICATION OF THE FINANCIAL REPORT

for Q3 2021

## EARNINGS CALL FOR INVESTORS

November 25, 2021 at 10:00 am, conference in Polish

[> REGISTER](#)

November 26, 2021 at 11:00 am, conference in English

[> REGISTER](#)



# STAY IN TOUCH

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FOR MORE INFORMATION GO TO  
OUR INVESTOR RELATIONS SITE

