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shaping global nanofuture



XTPL S.A.



1. INFORMATION ON ISSUE OBJECTIVES AND OTHER IMPORTANT EVENTS IN THE REPORTING PERIOD

A. SUMMARY OF OPERATING ACTIVITIES IN THE AREA OF THE ISSUER'S BUSINESS DEVELOPMENT IN NOVEMBER 2018

In the reporting period, the most important events in the area of business development included:

- the last phase of the proof-of-concept project for a leading US manufacturer from the smart glass industry. After the Issuer has completed this phase, the US manufacturer will carry out its own tests and will verify the result obtained by the XTPL laboratory. The verification will potentially open up negotiations to embark on a joint commercial project for the development of a multi-head and a compatible nanoink.
- finalizing preparations for a technological demonstration for a China-based manufacturer of devices for the production of displays. The global partner is in negotiations with XTPL regarding implementation of the disruptive nanoprinting technology in the area of repairing broken metallic connections in fine electronic circuits (open defects repair). Thanks to the intensive work of the R&D team, the Issuer will be able to present, inter alia, a fully functional prototype of the printing head for open defects repair already during the forthcoming reference visit.
- conducting further, in-depth analyses to draw up a technology development map and define sectors that are key from the commercialisation perspective. As a result, the business development team, supported by the international Advisory Board, has determined that at this stage R&D and sales efforts should primarily focus on the open defects repair. The next greatest potential is noted in the production of new generation TCFs (transparent conductive films), semiconductors and quantum dots.
- work on new patent applications. Their primary goal is to secure further IP layers developed by the R&D
 team. The ensuing international protection can also positively affect the ongoing and upcoming business
 talks, strengthening the credibility and security of the Company and its ground-breaking technology.
- work on expansion of the business development structures in the United States. The team being formed has
 an interdisciplinary character and already includes outstanding specialists in technology implementation
 and intellectual property, including patent protection. With the support from the international Advisory
 Board, this team will drive the Issuer's commercialisation activities in the US market, including in the
 promising smart glass sector.

Financing the activities of the business development department was one of the objectives of the series M shares issue. Financing operations in US market was one of the objectives of the series N and O shares issue. Financing the work related to strengthening the patent position was one of the objectives of the series O shares issue.



B. OTHER SIGNIFICANT EVENTS IN NOVEMBER 2018.

FILIP GRANEK, PHD, HONOURED WITH THE TITLE OF EY ENTREPRENEUR OF THE YEAR 2018



Filip Granek, the CEO and and founder of XTPL, has been awarded with the title of EY Entrepreneur of the Year 2018 and became a winner of this competition in the New Business category. The award gala took place in Warsaw. At the next, international stage, Filip Granek will compete with winners of the local editions of the competition from over 60 countries. The World Entrepreneur of the Year Gala will take place in June 2019 in Monte Carlo. The award is the most prestigious business accolade in Poland and will significantly increase the visibility and credibility of XTPL not only in Poland, but also on the international stage.

REGISTRATION BY THE REGISTRY COURT THE INCREASE IN SHARE CAPITAL AND CHANGES IN THE STATUTE.

On November 8, 2018, the Registry Court registered the share capital increase up to the amount of PLN 178 362 and the unified text of the Issuer's Statute. The Issuer informed about registering changes by the registry court in the current report EBI No. 28/2018 dated November 9, 2018.



2. BASIC INFORMATION ABOUT THE COMPANY

Business name: XTPL Spółka Akcyjna

Registered office: Wrocław

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THE MANAGEMENT BOARD:

- dr Filip Granek President of the Management Board
- Maciej Adamczyk Member of the Management Board

SUPERVISORY BOARD:

- Wiesław Rozłucki Chairman of the Supervisory Board
- Bartosz Wojciechowski Vice-chairman of the Supervisory Board
- Konrad Pankiewicz
- Sebastian Młodziński
- Piotr Lembas



XTPL S.A. Stabłowicka 147 54-066 Wrocław, Poland **xt-pl.com**



3. THE ISSUER'S BUSINESS PROFILE

The Issuer operates in the nanotechnology segment. XTPL's interdisciplinary team develops a technology of ultraprecise printing of nanomaterials, which is innovative on a global scale and is protected by an international patent application. The XTPL solution has all the features of a disruptive technology and will be consistently developed as part of advanced research with a view to defining further, innovative uses of the solution in specific application areas.

The Company commercialises its solution in a phased approach: it intends to supply nanoprinting equipment, compatible nanoinks, dedicated to specific applications, and printing heads to buyers from e.g. the printed electronics sector. In the first place, XTPL develops laboratory printers for R&D works by research and development departments of potential business clients and research centres. The next phase will include comprehensive solutions for the industry: unique printing heads – dedicated for specific application fields, as well as compatible, precisely adjusted nanoinks. The company plans for the printing heads – enabling implementation of the revolutionary nanoprinting and ultraprecise depositioning technology - to be designed by XTPL, manufactured by external contractors and assembled finally by XTPL. Nanoinks will be manufactured by a selected subcontractor – based on patented formulations. XTPL intends to sell nanoinks (based commercial partner's production capacity) and printing heads directly, as well as to implement technology as a service for selected clients (technology consulting).

XTPL's goal is to revolutionise selected areas of the broad sector of printed electronics. Strong development of this market is due to the growing number of new applications of printed, flexible and organic electronics in various fields. XTPL technology will be used in many existing areas of printed electronics industry or - thanks to the unprecedented precision of the nanomaterials printing solution - XTPL might enable implementation of new areas in this sector. The technological revolution is based on enabling the production of complex and complicated electronic components using cheap and scalable printing methods. Just as today we cheaply and quickly print newspapers and books, in the future we will print displays, solar cells, biosensors and other elements. The size of the entire electronics market: 2017 – USD 29.3 billion; 2027 – USD 73.4 billion; CAGR 9.3% (forecast)



THE KEY IDENTIFIED APPLICATIONS OF XTPL TECHNOLOGY IN THE PRINTED ELECTRONICS SECTOR INCLUDE:

OPEN DEFECTS REPAIR



Micro- and nano-conductive structures are indispensable in the broadly understood electronics (i.e. integrated circuits, LCD/ OLED displays, PCBs, solar cells and many others). This sector faces a major problem as these conductive structures are very often damaged at the production stage. Electronic components made on the basis of such structures are extremely expensive, which is why repair of those defects is of key importance. The repair methods currently available in the market are very limited,

complicated and costly. XTPL offers a new breakthrough solution that allows defects in conductive paths to be repaired at low cost, with unparalleled precision and speed.

TRANSPARENT CONDUCTIVE FILMS (TCF)



Transparent conductive films are indispensable in the production of displays, monitors, touch screens and photovoltaic cells. Currently, the most commonly used TCFs are based on indium—tin oxide (ITO). Indium is a rare element whose supply on a global scale is mostly controlled by China (about 50%–60% of global production) and Korea (15% market share). ITO-based films are not flexible (which is a serious limitation for electronics manufacturers); they insufficiently conduct electricity and have a limited

optical transparency. Due to limitations of ITO, technology companies around the world are looking for new generation TCF technology as an alternative to ITO. XTPL solution presents such an alternative. It ensures full transparency, excellent conductance parameters, low prod uction costs due to the use of commonly available materials (i.e. silver) that can provide the sought-after technological independence from indium as well as flexibility of the conductive films, which will enable electronics manufacturers to develop and provide new generation of revolutionary solutions to customers.



SEMICONDUCTORS



XTPL solution responds to the needs of equipment manufactures in the semiconductor sector who seek to replace photolithography with a simpler and cheaper method, yet one that ensures the highest precision. Photolithography is a technique which is highly complex, very expensive and not versatile. It requires an extremely clean substrate and ideal temperature conditions that are void of all contaminants, liquids and environmental hazards. Furthermore, it is used only for flat surfaces

in order to produce effective patterns. The additive, ultra-precise technology of creating submicron structures offered by XTPL eliminates all these disadvantages and is a sought-after alternative in this sector.

The Company's registered office and research laboratories are located on the premises of the PORT Wrocław Research Centre. Currently, the XTPL team consists of more than 45 people in Poland and the United States – scientists and technologists with interdisciplinary expertise in chemistry, physics, electronics, mechanics and numerical simulations (including nine persons with a doctorate degree), as well as specialists in strategic management and technology commercialisation with experience and successful track record in product development, marketing and capital markets. An important advantage is the fact that the Issuer's team includes many professionals with know-how developed in international markets, who in their professional career have cooperated with global corporations and research institutes.



4. SUMMARY OF THE INFORMATION PUBLISHED BY THE ISSUER IN THE FORM OF CURRENT REPORTS DURING THE REPORTING PERIOD

CURRENT AND PERIODIC EBI REPORTS:

- 1. Report No. 28/2018 (09/11/2018) Registration of amendments to the statute of XTPL S.A. and the uniform text of the statute of XTPL S.A.
- 2. Report No. 29/2018 (14/11/2018) Monthly report October 2018
- 3. Report No. 30/2018 (14/11/2018). Individual quarterly report for the third quarter of 2018

CURRENT ESPI REPORTS:

- 1. Report No. 15/2018 (12/11/1018) Exceeding the 10% threshold of the total number of votes in XTPL S.A.
- 5. INVESTOR'S CALENDAR, ENCOMPASSING EVENTS TAKING PLACE IN DECEMBER 2018 (OR LATER) WHICH CONCERN THE ISSUER AND ARE SIGNIFICANT FROM THE POINT OF VIEW OF INVESTORS' INTERESTS, INCLUDING IN PARTICULAR: THE DATES OF PUBLICATION OF PERIODIC REPORTS, PLANNED GENERAL MEETINGS, OPENING OF SUBSCRIPTIONS, MEETINGS WITH INVESTORS OR ANALYSTS, AND THE EXPECTED DATE OF PUBLICATION OF THE ANALYTICAL REPORT
 - 14 January 2018: publication of monthly report for December 2018
- 6. INFORMATION ON TRENDS AND EVENTS IN THE ISSUER'S MARKET ENVIRONMENT WHICH, IN THE OPINION OF THE ISSUER, MAY HAVE A MATERIAL EFFECT ON THE ISSUER'S FINANCIAL CONDITION AND RESULTS IN THE FUTURE

In the opinion of the Issuer's Management Board, in the period covered by the monthly report there were no events nor significant new trends in the Company's market environment which could have a significant effect on the Company's financial condition and financial results.

THE MANAGEMENT BOARD:

Maciej Adamczyk Member of the Management Board