





Silicon Valley

## IN A NUTSHELL

XTPL provides disruptive, additive manufacturing, nanoprinting technology for various industrial applications ensuring

unparalleled  
precision

lower cost

ultimate  
simplicity

versatility

## PROBLEM

- Printed electronics – pursuit of miniaturisation, expensive & complicated manufacturing technologies for high-tech devices
- Displays
  - a) breaking of extremely fine conductive paths in electronic circuits (opens defects) & lack of optimal repair method
  - b) ITO-based transparent conductive films are expensive, not flexible (a significant limitation for electronics manufacturers), have insufficient electrical conductance & limited optical transparency
  - c) colour filter layers are produced using material- & time-consuming methods
- Biosensors – expensive and not scalable production & inefficient functionalization for targeting selected analyte
- Anticounterfeiting – no simple & low cost solution that cannot be counterfeited



# APPLICATION SEGMENTS

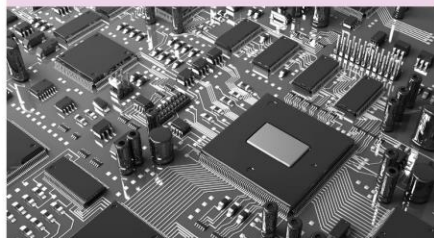
## PRINTED ELECTRONICS

- Market value in 2017 - approx. USD 9.3 billion
- Estimated market value in 2027 - USD 73.4 billion
- CAGR 2017-2027 - 10%

DISPLAYS



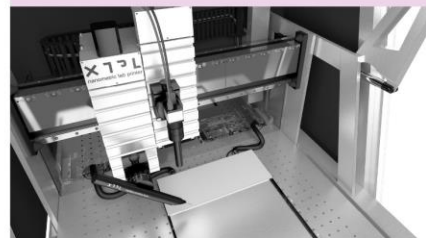
ADVANCED PCB'S



ANTICOUNTERFEITING



RESEARCH & PROTOTYPING



BIOSENSORS



OPEN DEFECT REPAIR

TRANSPARENT CONDUCTIVE FILMS

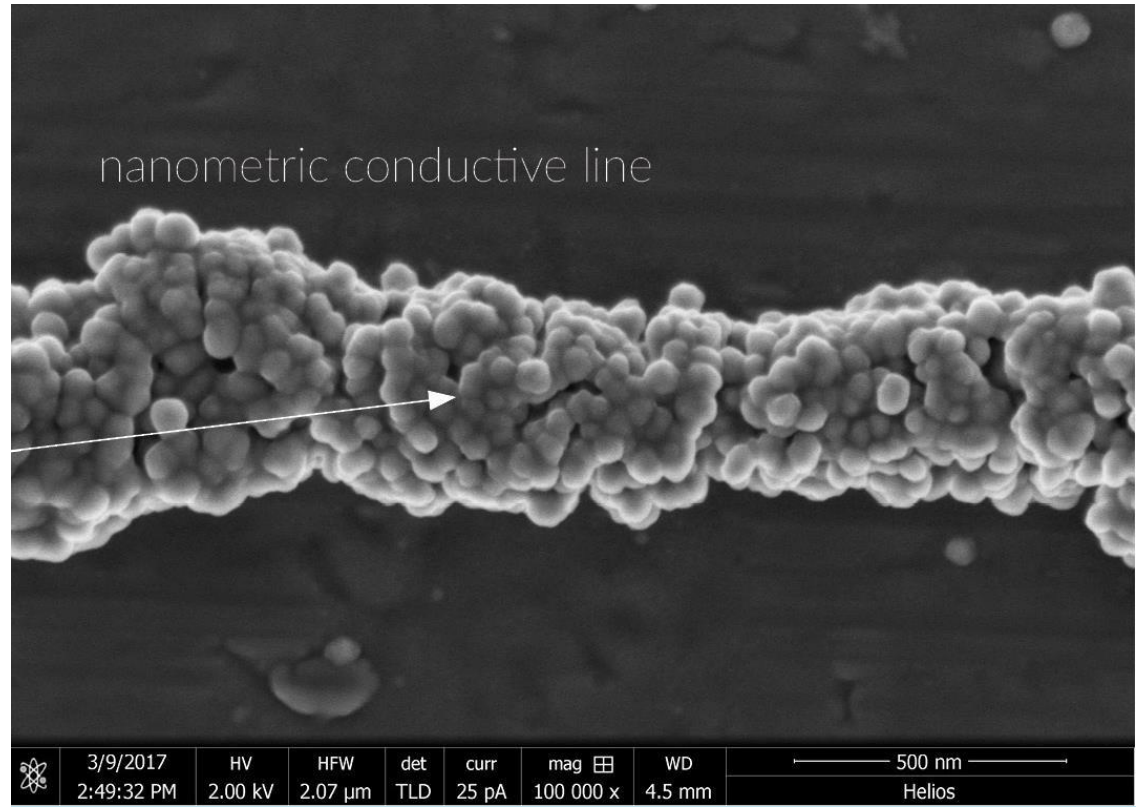
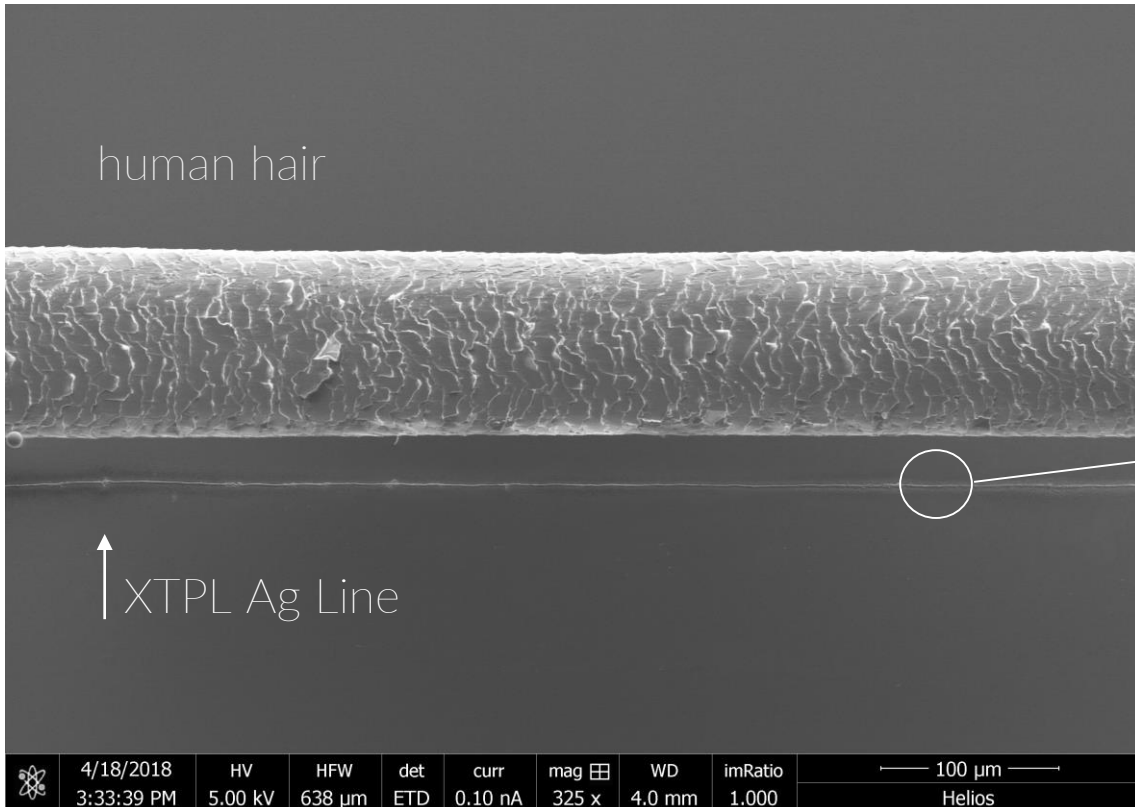
QUANTUM DOTS

## SOLUTION

XTPL developed innovative printing-head and dedicated nanoinks that enable ultra-precise printing of nanomaterials. The solution – due to its platform character – will be used in a wide printed electronics sector & provide low-cost, simple, additive manufacturing method for high-tech devices. The technology will facilitate the production of a new generation transparent conductive films (TCF) used in manufacturing of i.e. monitors, touch screens, photovoltaic cells & displays - where XTPL can also deliver the technology for open-defect repair (the repair of broken metallic connections in thin film electronic circuits) and quantum dots dispensing. XTPL solution opens up also revolutionary applications in biosensors or anti-counterfeiting. It has all the features of a so-called 'disruptive technology' and will be consistently developed within specific application areas.



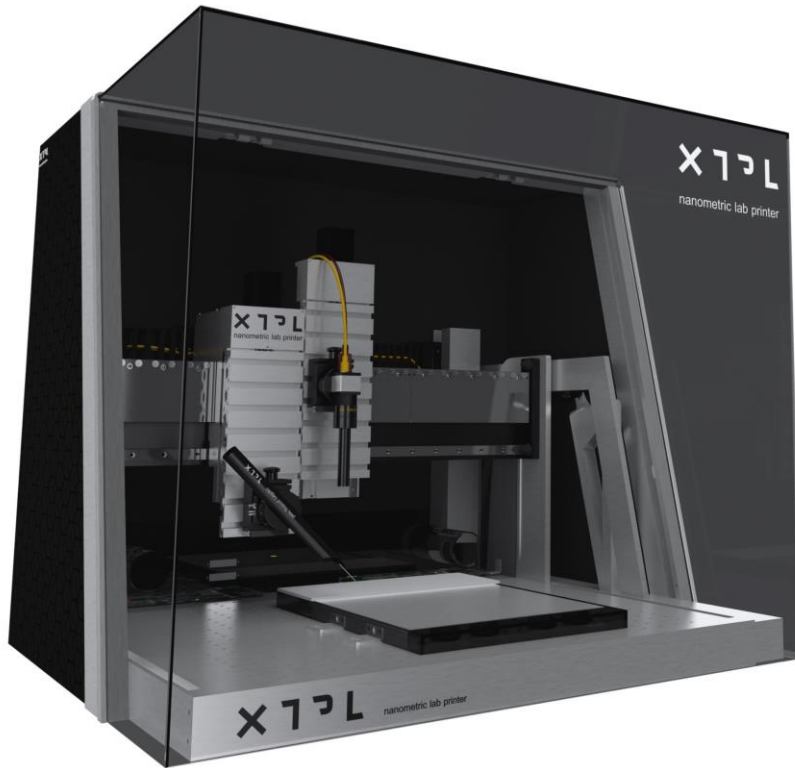
NANOPRINTING



ultra-precise printing enables achieving conductive lines up to several hundred times thinner than a human hair, invisible even for the light

nanoprinting may soon revolutionise sectors such as: printed electronics, solar cells, touch screens, wearable electronics, smart packaging, automotive, biosensors, medical devices, anti-counterfeiting & open defect repair

## PROOF OF CONCEPT – NANOMETRIC LAB PRINTER



XTPL's printing head, electronics and software algorithms are the core of the system driving the electric field and the assembly process of nanoparticles. This comprehensive solution is implemented in Nanometric Lab Printer designed & constructed by XTPL team. It is a device that offers necessary functionalities to test, evaluate and use XTPL line-forming technology with nanometric precision and enables positioning of the printing head with micrometric resolution. Printer's electronics is a top-class control and measurement system ensuring that the process of printing is controlled both by software provided by XTPL and user systems. We deliver the printer with a set of inks, test substrates and a table that ensures proper fixing of samples and thermal control of the printing process. XTPL's technology sets revolutionary standard in nanoprinting.

XTPL Nanometric Lab Printer is dedicated for:

- R&D centres both scientific & commercial
- Joint development projects with potential business partners
- Further development & defining new functionalities in line with application areas



# FINANCIAL DATA

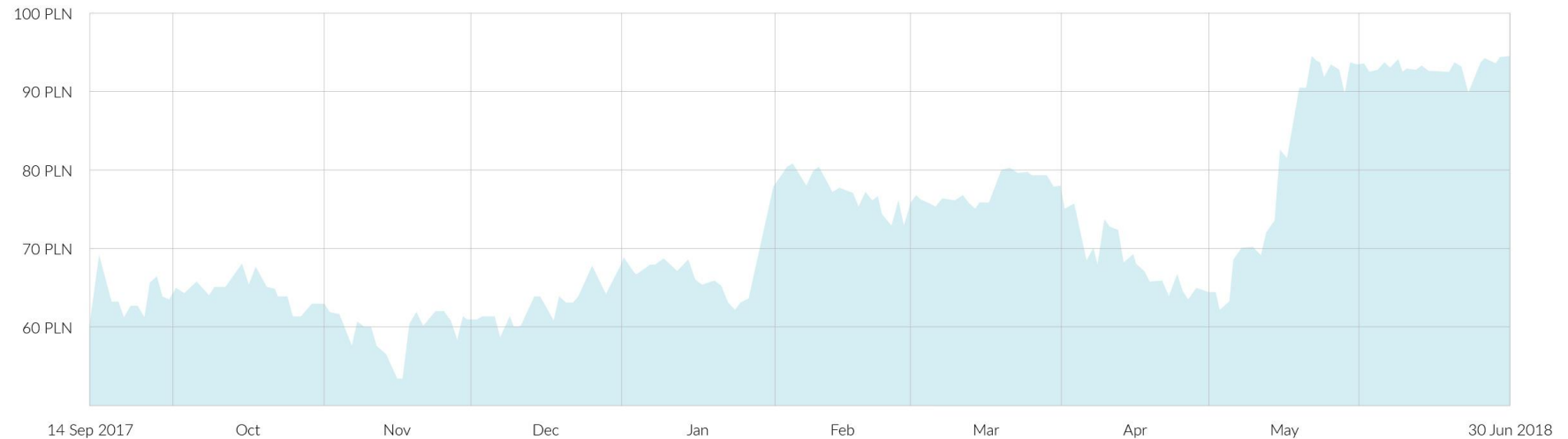
## P&amp;L

The name of the position	QII 2017 (PLN '000)	QII 2018 (PLN '000)
A. Net revenues from sales and equivalent, including:	505	476
- from subsidiaries and affiliates	0,00	0,00
I. Net sales revenues (including subsidies)	505	476
B. Operating expenses	1 245	2 225
I. Depreciation and amortisation	92	136
II. The consumption of materials and energy	82	194
III. Outsourcing	421	879
IV. Taxes and fees, including:	25	17
V. Salaries	502	704
VI. Social security and other benefits, including:	84	157
VII. Other expenses by type	39	138
VIII. Value of sold goods and materials	0,00	0,00
C. Profit (loss) on sales (A-B)	-740	-1 749
D. Other operating income	0,00	0,00
E. Other operating expenses	0,00	1
F. Profit (loss) on operating activities (C + D-E)	-740	-1 749
G. Financial income	0,00	15
H. Financial costs	3	12
I. Gross profit (loss) (F+G-H)	-743	-1 746
J. Income tax	0,00	-40
L. Net profit (loss) (I-J-K)	-743	-1 706

## CASH FLOW

	QII 2017 (PLN '000)	QII 2018 (PLN '000)
<b>A. Cash flows from operating activities</b>		
I Net profit (loss)	-743	-1 706
<b>II. Total adjustments</b>	<b>-188</b>	<b>97</b>
1. Depreciation and amortisation	93	136
2. Profit (loss) due to exchange differences	0,00	0,00
3. Dividend and share in profits	0,00	-14
4. Profit (loss) on operating activities	0,00	0,00
5. Change in provisions	0,00	0,00
6. Change in inventory	0,00	88
7. Change in receivables	-138	-363
8. Change in short-term liabilities excluding loans	38	284
9. Change in prepayments and accruals	-181	-33
10. Other adjustments	0,00	0,00
<b>III. Net cash flows from operating activities (I + II)</b>	<b>-931</b>	<b>-1 609</b>
<b>B. Cash flows from investing activities</b>		
I Inflows	0,00	20
II. Outflows	147	593
<b>III. Net cash flows from investing activities (I-II)</b>	<b>-147</b>	<b>-573</b>
<b>C. Cash flows from financing activities</b>		
I Inflows	998	0,00
II. Outflows	6	7
<b>III. Net cash flows from financing activities (I-II)</b>	<b>992</b>	<b>-7</b>
<b>D. Total net cash flows (A.III±B.III±C.III)</b>	<b>-86</b>	<b>-2 189</b>
E. Balance sheet change in cash, including	-86	-2 189
F. Cash opening balance	646	4 708
G. Closing balance of cash (F±D), including	560	2 519

## STOCK QUOTATIONS



- On 16 April 2018 the Extraordinary Meeting of the Shareholders of the Company adopted a resolution no.03/04/2018 on seeking admission and introduction of the Company's shares to the regulated market operated by Warsaw Stock Exchange.
- Implementing the decision of the Company's shareholders, on 9 May 2018, the Management Board of XTPL submitted to the Polish Financial Supervision Authority an application for the approval of the prospectus. Currently, the necessary activities are being carried out on the side of the Office and the Company.

## SHAREHOLDING STRUCTURE

L.P.	SHAREHOLDER	NUMBER OF SHARES HELD	% SHARE
1.	Filip Granek	303 000	17,87
2.	Sebastian Młodziński	300 000	17,70
3.	Leonarto Sp. z o.o. *	298 000	17,58
4.	TPL Sp. z o.o. **	140 020	8,26
5.	Stefan Twardak	103 081	6,08
6.	Heidelberger Beteiligungsholding AG	102 000	6,02
7.	Universal-Investment-Gesellschaft Mit Beschränkter Haftung on behalf of Acatis Investment GMBH	94 000	5,55
8.	Konrad Pankiewicz *	2 223	0,13
9.	Others	352 896	20,82
	<b>TOTAL</b>	<b>1 695 220</b>	<b>100,00</b>

Number of shares = Number of votes  
 % of shares = % of votes

\*Konrad Pankiewicz, Member of the Supervisory Board, is the only one shareholder and the Chairman of the Board of Leonarto Sp. z o.o. Konrad Pankiewicz together with his affiliated entity own 300 223 shares of the company and 17,71% of the equity

\*\* TPL Sp. z o.o. possess Series L shares, issued for employees shares option program, that are not listed on NewConnect market. Shareholders of TPL Sp. z o.o. are: Filip Granek, Chairman of the Board of the Issuer (34% of shares), Sebastian Młodziński, Member of the Board of the Issuer (33% of shares) and Adriana Pankiewicz who is Konrad Pankiewicz's wife (33 % of shares)



# HIGHLIGHTS IN QII 2018

## NEW PRIVATE ISSUE OF SHARES

The German ACATIS fund is ready to invest another PLN 4,4 million in XTPL. Managed by the iconic figure of the German capital market – Dr. Hendrik Leber - the fund is going to take up new, private issue of the Company's shares. ACATIS is an investment fund that has been operating for more than three decades. It is a trend-setter, both in terms of quality and selective approach to investments. The new round of funding from such a player is the best evidence of the XTPL's potential. Acquired funding will finance the process of company's business development in the United States, especially in Silicon Valley.



## RECEIVING AN INVITATION FOR NEGOTIATIONS

On June 18, the Issuer announced that it had received an invitation and negotiated a cooperation agreement with a global manufacturer of display devices based in China (Current Report ESPI 8/2018). The contract concerns the use of XTPL technology in the area of repairing broken metallic connections in thin-layer electronic systems (open-defect repair). A potential client is a company listed on the China Stock Exchange, and its capitalization is over USD 9 billion. According to independent analyzes, the value of the global market for open-defect repair solutions is estimated at approx. USD 4.5 billion and is growing at a rate of over 7% per annum.



## SUBMISSION OF THE PROSPECTUS



On April 16 2018 the Extraordinary General Meeting of Shareholders of the Company adopted resolution No. 03/04/2018 on applying for admission and introduction of all XTPL shares to trading on the regulated market operated by the Warsaw Stock Exchange. The intention to apply for market change quotations is not combined with the new share issue. Implementing the decision of the Company's shareholders, on 9 May 2018, the Issuer's Management Board submitted to the Office of the Polish Financial Supervision Authority an application for the approval of the prospectus. Currently, the necessary activities are being carried out on the side of the Authorities and the Issuer.

## HONORARY AWARD I-ZONE AT DISPLAY WEEK 2018

Display Week in Los Angeles is the most important conference in the display sector. Among attending technology champions there was also XTPL, which received an award for one of the most promising technologies among the participants of the I-Zone (Innovation zone) organized as a part of the Display Week. Among other awarded at the event companies were such giants as Apple, LG Display or Sharp. In this way “big industry” recognized unique solutions of XTPL, whose application laboratory is now realizing several projects for international partners – both industrial and scientific.



## WIESŁAW ROZŁUCKI JOINS XTPL'S SUPERVISORY BOARD



In connection with the resignation of Mr Piotr Janczewski, on 16 April 2018 the Extraordinary Meeting of the Shareholders of the Company appointed Mr Wiesław Rozłucki, the former president and cofounder of the Warsaw Stock Exchange (GPW) as a member of the Supervisory Board. Mr. Rozłucki was then chosen the President of XTPL's Supervisory Board. He will actively support the Company's capital market activities and its general corporate governance with his knowledge and experience.

## HAROLD HUGHES JOINS XTPL'S ADVISORY BOARD

Harold Hughes has been developing high-tech projects in Silicon Valley for the past 40 years. Now he will support XTPL in its plans to globally implement cutting-edge nanoprinting solutions as Member of the Advisory Board. He was involved for many years at the board level in Intel and Intel Capital. He was the CEO of Rambus, company quoted on NASDAQ, active - among others - in the semiconductor sector. During his presidency this company's valuation exceeded \$4.5 billion. Hughes also participates in boards of companies such as Quantenna Communications (Wi-Fi chips, \$0.6 billion capitalization at NASDAQ), and View Inc. (smart glass sector, \$0.715 financing and estimated valuation of \$ 1.1 billion). He supports also another promising firm from Silicon Valley - he advises Kateeva, which commercializes breakthrough solutions in the area of printing and inks for the new generation of OLED screens.



## XTPL'S ADVISORY BOARD EVEN STRONGER – AMIR NAYYERHABIBI JOINS



The Wall Street Journal referred to him as “serial entrepreneur”. He gained experience at Intel and Cisco. Amir Nayerhabibi – who is the new Member of XTPL’s Advisory board - will be advising and supporting the company by introducing it to the Silicon Valley ecosystem. He explains:

„I am joining XTPL’s Advisory Board because I believe that the company’s breakthrough nanoprinting solutions stand a good chance of being adopted among leading players of Silicon Valley. Such pioneering, technologically advanced projects targeting, among others, the semiconductor industry, seem very timely. That’s why I decided to support XTPL in its efforts of global expansion”

## XTPL BUILDS OPERATIONAL STRUCTURES IN USA

XTPL is setting up its business structures in Silicon Valley. Market development and customer acquisition will be the responsibility of local managers with extensive experience in the industries that are key to commercialization goals of the Company. US market is of utmost importance in terms of industrial implementation of XTPL solutions. The choice is not accidental – this is the market where disruptive technologies develop the fastest. XTPL's network in Silicon Valley is based on strong names ensuring commitment from leaders of the region's innovative industry. US market due to its unique business infrastructure and experience in deploying high technologies is where many companies like XTPL had their origins and accomplished their success.



## ANOTHER PATENT APPLICATION



On June 6, 2018, the Issuer submitted another patent application to the British patent office. The application was created in cooperation with the London law firm Gill Jennings & Every LLP. The invention develops the XTPL printing method, and in particular refers to the conductive lines created by this method - they are characterized by greater conductance and mechanical resistance. The solution has already been implemented in XTPL laboratory printers.



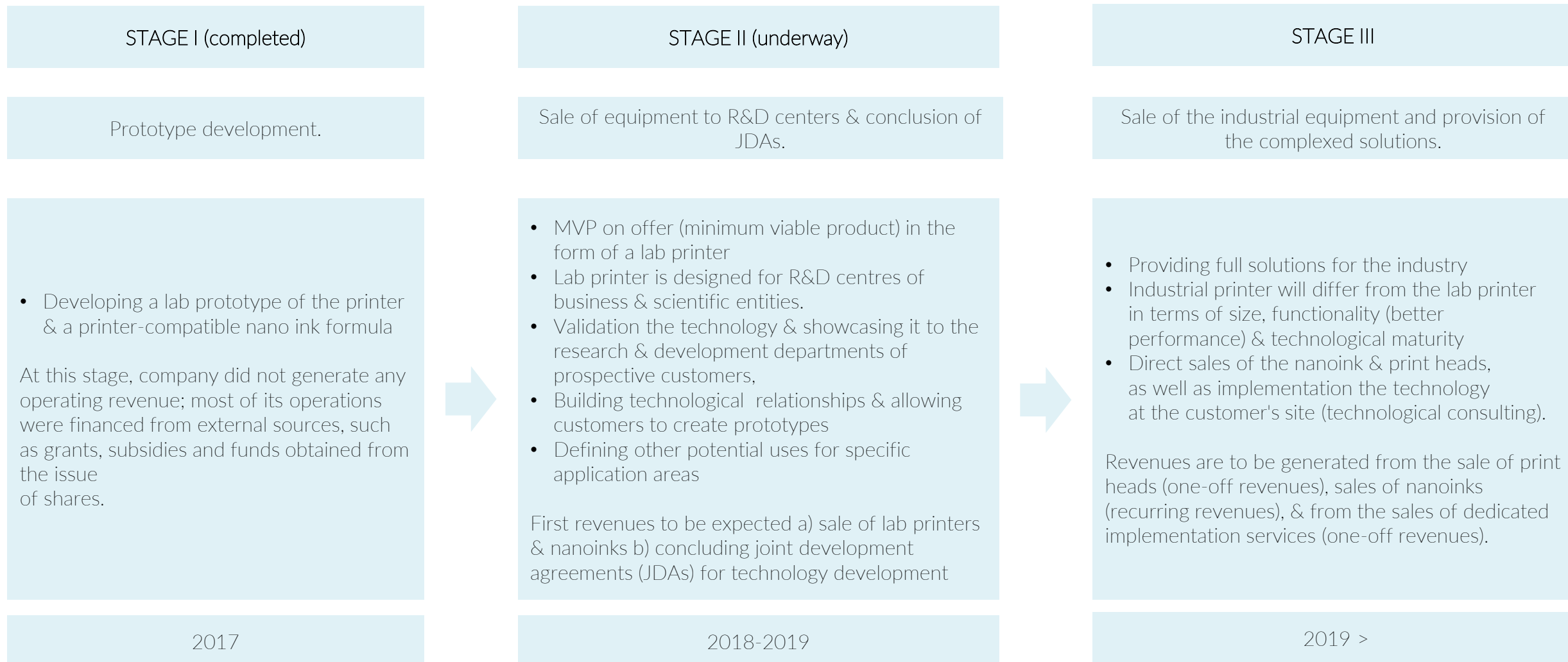
FUTURE GOALS

## PIPELINE

CUSTOMER/PARTNER	TYPE OF COOPERATION
North America, Cars producer	JDA
North America, Semiconductors	Industrial printing head
North America, R&D center	JDA
North America, Technological institute	Laboratory Printer
North America, Technological institute	Laboratory Printer
North America, Technological institute	Laboratory Printer
Asia, Technological institute	Laboratory Printer
North America, Technological institute	Laboratory Printer
North America, Medical equipment	Industrial printing head
Europe, Materials producer	Industrial printing head
North America, Displays manufacturer	JDA
North America, Semiconductors	JDA
Europe, Anticounterfeiting	Laboratory Printer
Asia, Manufacture equipment producer	Industrial printing head
North America, Communication electronics producer	JDA
North America, Semiconductors and displays producer	JDA
North America, Additive manufacturing	JDA
North America, Cars producer	JDA
Asia, Displays manufacturer	JDA
North America, Consumer electronics producer	JDA
North America, Integrated circuits producer	JDA
North America, Integrated circuits producer	JDA
North America, Internet of Things	JDA
North America, Lighting panels producer	Industrial printing head

North America, Integrated circuits producer	JDA
North America, Photovoltaics	JDA
North America, Printed electronics	JDA
North America, Semiconductors	JDA
Europe, R&D center	JDA
North America, Semiconductors	JDA
North America, Consumer electronics producer	JDA
North America, Consumer electronics producer	JDA
North America, Consumer electronics producer	JDA
North America, Smart packaging	JDA
North America, Smart packaging	JDA
North America, Memory producer	JDA
Asia, Displays manufacturer	Industrial printing head
Europe, Communication electronics producer	Industrial printing head
Europe, Smart glasses producer	JDA
North America, R&D center	Laboratory Printer
North America, Smart glasses producer	JDA
Asia, Displays manufacturer	JDA
Near East, Displays manufacturer	JDA
North America, Removable energy	JDA
North America, Audio-Video technologies	JDA
Asia, Technology solutions	JDA
North America, R&D center	Laboratory Printer
North America, Computing systems	JDA
Europe, Smart packaging	JDA
North America, Electronical systems controllers	JDA

## STAGES OF COMMERCIALIZATION



## MOST IMPORTANT STRATEGIC ACTIONS PLANNED

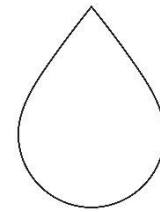
ACTION	TIMING
JDA or/and hardware sales with mature players in verified application segments - leading to industrial implementation in the future	2018
Development of sales structures in USA	2018
Transition to the main market of stock exchange in Poland	2018
Parallel quotation on another European stock exchange (e.g. Frankfurt)	2018
Additional grant to enforce commercialization process	2018
Patent family development	2018 - 2019



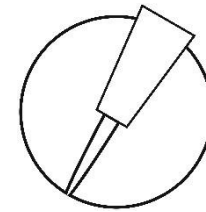
# SUMMARY

PROTECTED INTELLECTUAL PROPERTY

XTPL's printing method and the ink formula are covered by patent applications submitted in collaboration with the British law firm, Gill Jennings & Every LLP. The patent protection will be extended to around 30 countries.



Unique nano-ink



Printing head

Patent cloud

Gill Jennings & Every LLP, London UK

## STRONG TEAM



## TECHNOLOGY

interdisciplinary, well-balanced team, with vast knowledge & experience in:

- chemistry
- physics
- electronics
- mechanics
- material science
- numerical simulations

11 PhDs in the team

## BUSINESS

business leaders & highly skilled professionals who possess know-how & experience in:

- product development
- marketing & communication
- implementing innovation
- finance
- B2B sales
- capital market

... with proven successes, acquired on international markets

## BUSINESS SUPPORT



WIESLAW ROZLUCKI

CHAIRMAN OF SUPERVISORY BOARD

Co-founder & former president of Warsaw  
Stock Exchange



HAROLD HUGHES

ADVISORY BOARD

Former CFO of Intel & CEO of Rambus



AMIR NAYYERHABIBI

ADVISORY BOARD

Built or financed several successful California-  
based high-technology companies; experience  
at Intel & Cisco

## SELECTED AWARDS &amp; GRANTS



## WINNER

Honorary Award I-Zone at Display Week 2018

The Economy Award of The President of The Republic of Poland Andrzej Duda 2017

Idtechex Printed Electronics Technical Development Manufacturing Award

Mit Enterprise Forum Poland

## GRANT

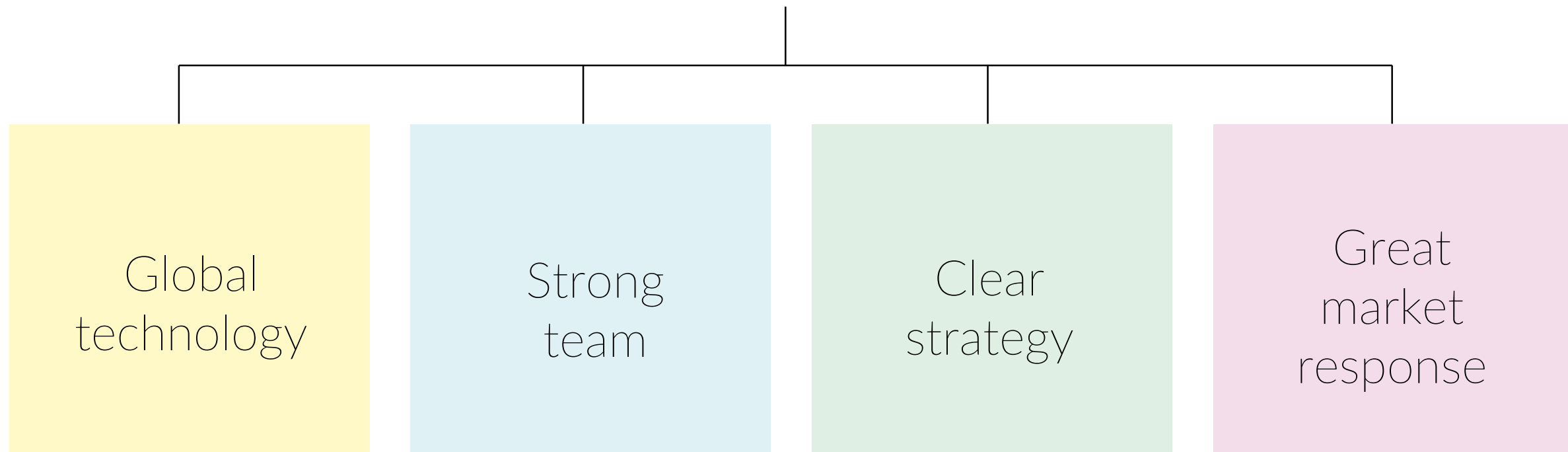
SME INSTRUMENT

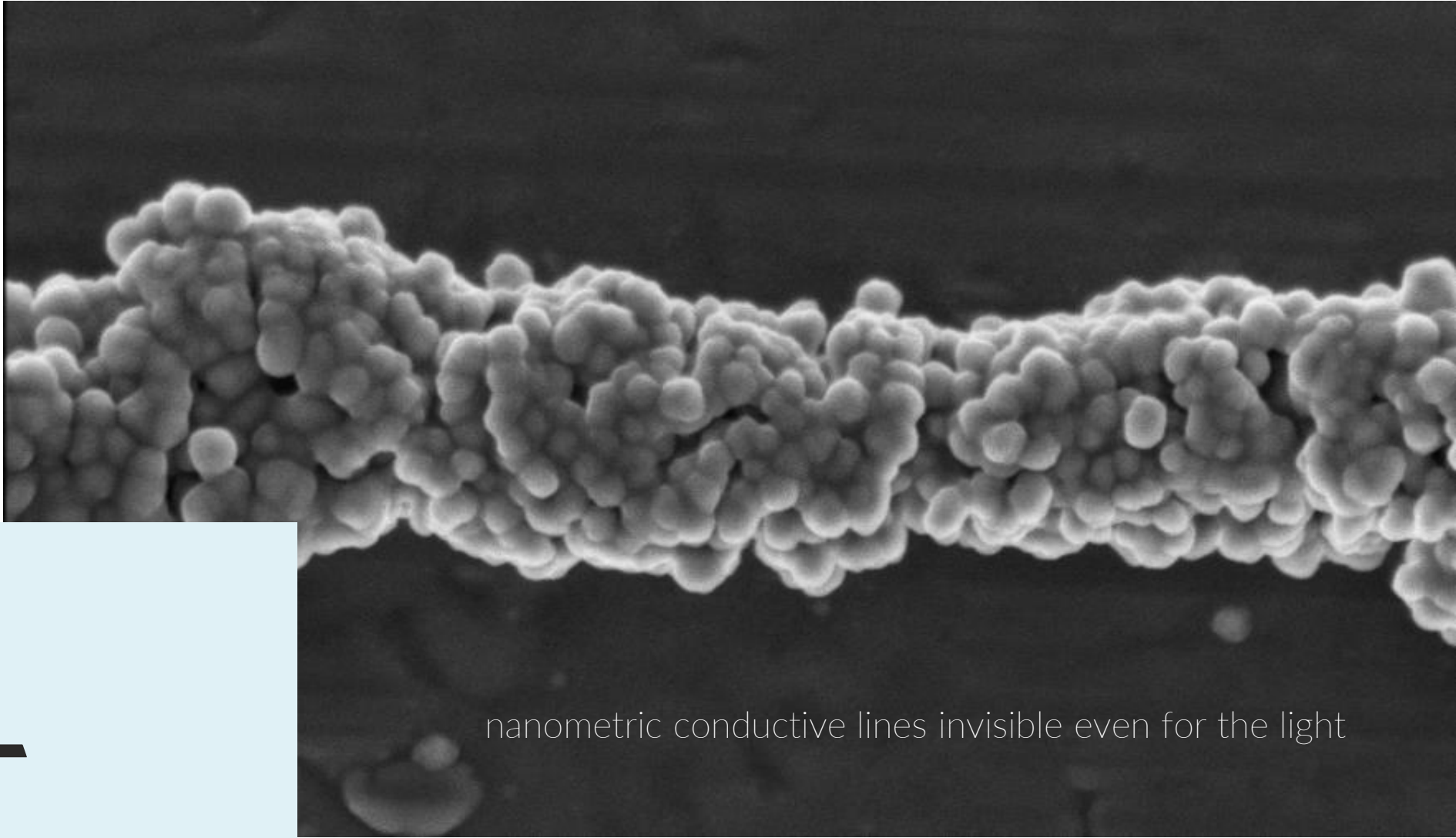
RPO

NCBR FAST PATH

PARP

# XPL





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nanometric conductive lines invisible even for the light

Thank you