

shaping global nanofuture



2018 ANNUAL REPORT XTPL S.A.

## Dear Shareholders,



FILIP GRANEK
PRESIDENT OF THE MANAGEMENT BOARD, CEO

"XTPL Inside" – this is the direction we have chosen to follow. It is not merely a paraphrase of the famous Intel slogan, but above all a reflection of the strategic approach to the development and commercialization of our technology. XTPL solutions will facilitate the production of new generation electronics and help global manufacturers to gain technological edge. They will also enable increased production yield while reducing costs. Nanoprinting will significantly reduce the barrier of access to technologically advanced devices as they will become more efficient and cheaper at the same time. Our technology is to make a breakthrough and then to become a standard in the production of consumer electronics. In a similar way, Intel's solutions were implemented in manufacturing of modern computers and are still considered a synonym of innovation and the highest quality on the market.

"XTPL Inside" is our motto. The XTPL strategy entails a broad implementation of technological innovations directly onto production lines of industry leaders world-wide. As a supplier of groundbreaking, advanced nanotechnology, we want to enable a quantum progress and optimization of production for many sectors. The value of the printed, flexible and organic electronics sector is expected to exceed USD 77 billion in 2029. When effectively executed, the Company's strategy will help us to achieve the position of a major player in this rapidly growing market.

The platform character, understood as far-reaching versatility, allowing for implementation of our nanoprinting solution in many application fields, makes it necessary to focus on the most optimum ones. And although in recent months we already had the opportunity to carry out the first commercial orders, we made a concious decision not to invest the Company's resources there. Why? Our business analysis demonstrated that none of those orders would allow the business to be scaled to an appropriately large size, while each of those orders required immense workload. Meanwhile, scalability in the particular market sector, achievable in the shortest possible time, is the key driver of the value for shareholders in the long-term.

Goal-focus and awareness of limited resources are at the heart of the decision taken by the Management Board to invest in the development and commercialization process in the two sectors that are key to XTPL at present. Last year, supported among others by our international Advisory Board, we outlined a roadmap for the development of our technology and defined the first application fields where we currently concentrate our activities. In recent quarters, we have developed models of dedicated "go to market" strategies, building close business relationships with large partners from these sectors in the United States and Southeast Asia. They declared their interest in XTPL solutions and confirmed their breakthrough nature for selected market segments.

Considering what we achieve in our laboratories while conducting proof-of-concept projects, we realize how highly advanced technology we can deliver. At the same time, we know that the "XTPL Inside" strategy requires patience, determination and the highest consistency. We pursue ambitious goals and we want to play in the technological premiere league. We also remain humble. We are aware that commercialization of a breakthrough technology is a process spread over time and financed by investors. A breakthrough involves hundreds, if not thousands, of small and larger steps, that every day get us closer to building a significant position on the global market. When asked about their formula for success, the founders of technology companies which have been very successful in Silicon Valley, usually respond in a similar way: success is about a good plan, followed by consistent, patient execution.

In January this year, we set up a subsidiary in the United States. Silicon Valley will become our second home. We work there in the immediate vicinity of such giants as Apple, LinkedIn or Corning. We admire them and we want to operate in the global market without any insecurities. Harold Hughes, the former CFO of Intel, and now one of the Board Members of our US firm said: "XTPL creates solutions to meet the needs of customers in large, high-volume industries. If you want to do it effectively, while aiming exactly at the market's requirements, there is no better place to do it than in the Silicon Valley ecosystem. This, however, requires time and resources." The only scenario we are interested in, is a long-term one, in which XTPL becomes a globally significant technological Company.

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## Financial highlights

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FIGURES IN PLN THOUSAND	1 JANUARY-31 [	DECEMBER 2018	1 JANUARY-31 DECEMBER 2017		
	PLN	EUR	PLN	EUR	
Net revenue from sales	2,267	531	1,763	415	
Profit (loss) on sales	-809	-190	-951	-224	
Profit (loss) before tax	-7,243	-1,697	-3,962	-933	
Profit (loss) after tax	-7,209	-1,690	-3,939	-928	
Depreciation/amortization	531	124	470	111	
Net cash flows from operating activities	-6,797	-1,593	-3,321	-782	
Net cash flows from investing activities	-2,758	-646	-873	-206	
Net cash flows from financing activities	8,902	2,086	8,962	2,111	
Owner's equity	8,937	2,079	7,217	1,730	
Short-term liabilities	1,031	240	845	203	
Long-term liabilities	1	0	25	6	
Cash and cash equivalents	5,537	1,288	6,210	1,489	
Short-term receivables	486	113	280	67	
Long-term receivables	233	54	14	3	

## Annual financial statements for 2018

2018 ANNUAL REPORT

#### 3. ANNUAL FINANCI AL STATEMENTS FOR 2018

#### 3.1. INFORMATION ABOUT THE FINANCIAL STATEMENTS

#### 3.1.1. IDENTIFICATION OF CONSOLIDATED FINANCIAL STATEMENTS

These are unconsolidated financial statements. As at the balance sheet date, 31 December 2018, the Company did not have any subsidiaries and does not prepare consolidated financial statements.

#### 3.1.2. PERIOD COVERED BY THE FINANCIAL STATEMENTS

These financial statements cover the period of 12 months ended 31 December 2018 and the data as of that date.

#### 3.1.3. COMPARABLE DATA

The statement of comprehensive income, the statement of cash flows and the statement of changes in equity cover the data for the 12 months ended 31 December 2018 as well as comparative data for the period of 12 months ended 31 December 2017. The statement of financial position covers the data presented as at 31 December 2018, and comparative data as at 31 December 2017.

#### 3.1.4. NOTES

Notes are an integral part of these financial statements.

#### 3.1.5. FOREIGN CURRENCY TRANSACTIONS

The items included in the financial statements are presented in the Polish zloty, which is the functional currency of the Company.

Transactions expressed in foreign currencies are translated at initial recognition into the functional currency as follows:

- at the exchange rate actually used, i.e. at the buy or sell rate applied by the bank at which the transaction takes place, in the case of currency sale or purchase transactions and payment of receivables or liabilities, or at the rate arising from contracts signed with the entity's bank or the rate agreed through negotiations;
- at the average exchange rate set for the particular currency by the National Bank of Poland as at the transaction date for other transactions. The exchange rate applicable at the transaction date is the average exchange rate of the National Banking of Poland announced on the last business day before the transaction.

At the end of each reporting period:

- any cash items expressed in foreign currency are converted using the closing rate applicable on that day, i.e. the average exchange rate set for the particular currency by the National Bank of Poland;
- any non-cash items measured at historical cost in a foreign currency are converted using the exchange rate (i.e. the average exchange rate set for the particular currency by the National Bank of Poland) applicable on the transaction date, and
- any non-cash items measured at fair value in a foreign currency are converted using the exchange rate (i.e. the average exchange rate set for the particular currency by the National Bank of Poland) applicable on the date of determination of the fair value.

Foreign exchange gains and losses arising from:

- settlement of transactions in a foreign currency;
- balance sheet valuation of cash assets and liabilities other than derivative instruments expressed in foreign currencies are recognized in profit or loss.

#### 3.1.6. FX RATES

The following exchange rates have been adopted for balance sheet valuation:

	31 DECEMBER 2018	31 DECEMBER 2017
FX rates for the balance sheet items		
USD	3.7597	3.4813
EUR	4.3000	4.1709
FX rates for items of the statement of comprehensive income and statement of cash flows		
USD	3.6227	3.7439
EUR	4.2669	4.2446

#### 3.1.7. APPROVAL OF THE FINANCIAL STATEMENTS

These financial statements were approved for publication by the Management Board on 25 April 2019.

#### 3.1.8. BASIS OF PREPARATION

These financial statements have been prepared under the historical cost convention, except for financial instruments measured at fair value. These consolidated financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") approved by the EU. Taking into account the ongoing IFRS implementation process in the EU, as regards the Company's operations there is no difference between the already implemented IFRS and the IFRS approved by the EU for the financial year ended 31 December 2018. IAS and IFRS include the standards and interpretations approved by the International Accounting Standards Board ("IASB") and the International Financial Reporting Interpretations Committee (IFRIC).

#### 3.1.8.1. NEW AND AMENDED IFRSS

From 1 January 2018, the Company has the bound by the following new and amended standards and interpretations:

• Amendments to IAS 40 Transfers of Investment Property

The amendments explain that in order to reclassify a property, there must be an evident change in its use. A change in use will occur if the property starts or ends to meet the definition of an investment property and evidence exists for a change in its use.

• Annual improvements to IFRSs - 2014-2016 Cycyle

When an investment in an associate or a joint venture is held by a venture capital organization, or a mutual fund, unit trust and similar entities, the entity may elect to measure investments in those associates and joint ventures at fair value through profit or loss.

• Amendments to IFRS 2 Classification and measurement of share-based payment transactions.

The changes clarify that the fair value of share-based payments settled in cash should be determined in the same way as payments in the case of equity instruments. In addition, a requirement was introduced to true up a liability by recognizing each change in value in profit or loss before the liability is reclassified to equity. The modified cost is determined on the basis of the fair value as at the date of modification.

• Amendments to IFRS 4 - Applying IFRS 9, Financial Instruments with IFRS 4, Insurance Contracts

The amendments allow entities which enter into civil contracts to recognize the effect of variability in total comprehensive income rather than in profit or loss. In addition, the changes allow entities whose predominant activity is connected with insurance to use an optional temporary exemption from the application of IFRS (until 2021).

• IFRS 9 Financial Instruments

The amendments provide for the classification of debt instruments in three categories: at amortized cost, at fair value through profit or loss ("FVPL") and at fair value through other comprehensive income ("FVOCI"). In accordance with IFRS 9, debt instruments are classified according to the business model used by the entity for managing financial assets and whether the cash flows arising from the contracts include solely payments of principal and interest.

The most important item of financial assets in the Company's financial statements is cash, held on accounts with banks from Santander Group. Banks which are Members of Santander Group have a stable short-term and long-term rating, so the Company decided not to post any allowances.

• IFRS 15 Revenue from Contracts with Customers (published on 28 May 2014), including amendments to IFRS 15 Effective date of IFRS (published on 11 September 2015).

The standard introduces new guidance on whether revenue should be spread over time or each time recognized at a particular point in time. In addition, it specifies that the transaction price includes an estimate of the variable payment when there is a high likelihood of a significant reversal of the recognized revenue amount if there is a change in estimates. The standard also introduces an obligation to allocate payments for individual goods and services under one contract, in the case of entities selling different goods or services. In some cases, the standard also requires the capitalization of contract performance costs. Also, where the contract includes an essential financing element, the transaction price should be adjusted by the time value of money.

• Clarifications to IFRS 15 Revenue from Contracts with Customers

Introducing modifications and clarifications to the guidance on the recognition of performance of obligations, licenses and the "agent or principal" issue.

• IFRIC 22 Foreign Currency Transactions and Advance Consideration

It defines the conversion rate to be used for foreign currency transactions which involve the payment or receipt of advance consideration posted before the entity recognizes the related asset, expense or income.

The Company did not have any signed commercial contracts that could be the basis for disclosures in accordance with IFRS 15. Implementation of IFRS 15 Revenue from Contracts with Customers has not affected the value of the Company's equity as at 31 December 2018.

Since 1 January 2019, the Company has the bound by the following new and amended standards and interpretations:

 IFRS 16 Leases (published on 13 January 2016) – applicable to the reporting periods commencing on or after 1 January 2019.

The new requirements eliminate the concept of operating lease, and thus the off-balance sheet recognition of assets held under operating lease contracts. The standard introduces a single lease concept. All assets and related obligations to pay rentals will have to be recognized in the balance sheet. This will change the basis for calculating commonly used financial ratios, including the debt ratio and EBITDA.

The Company currently has one lease agreement in place, which is presented as a financial lease and, in the context of the new provisions of IFRS 16 Leases, its presentation will not change.

• Amendments to IAS 19 Plan Amendment, Curtailment or Settlement (published on 7 February 2018)

These amendments to IAS 19 require the entity to apply the updated assumptions used for the purpose of measurement to determine current service costs and the net interest on the net liability (asset) in respect of certain benefits for the remainder of the reporting period after the plan change.

• Improvements to IFRSs 2015-2017 Cycle (published on 12 December 2017)

The improvements clarify that a previously held interest in a joint operation is not remeasured; the income tax consequences of dividends are recommended to be recognized in profit or loss, other comprehensive income or equity. In addition, as at the date of obtaining control, the acquiring entity should remeasure its previously held share in a joint operation at fair value.

• Amendments to IFRS 9 Prepayment Features with Negative Compensation

Its scope includes the classification and valuation of financial instruments, impairment of financial assets and other credit risk exposures, such as, for example, lease receivables or contract assets and hedge accounting.

• IFRIC 23 Uncertainty over Income Tax Treatments

It clarifies the recognition and measurement requirements contained in IAS 12 Income Tax where there is uncertainty over the income tax treatment.

• Amendments to IAS 28 Long-term interests in Associates and Joint Ventures.

The amendments clarify that IFRS 9 "Financial Instruments" applies to long-term interests in associates and joint ventures. Long-term interests are interests which in their economic substance are a part of a new investment rather than being accounted for using the equity method.

## 3.1.8.2. NEW STANDARDS AND INTERPRETATIONS THAT HAVE BEEN PUBLISHED BUT HAVE NOT BEEN APPROVED BY THE EU

The following standards and interpretations have been issued by the International Accounting Standards Board, but have not been approved by the EU yet:

- IFRS 17 Insurance Contracts (published on 18 May 2017) not adopted by the EU by the date of approval of these financial statements effective for periods beginning on or after 1 January 2021.
- Amendments to References to the Conceptual Framework in IFRS/IASs (29 March 2018) effective for reporting periods commencing on or after 1 January 2020.
- Amendments to IFRS 3 Business Combinations (published on 22 October 2018) applicable to reporting

periods commencing on or after 1 January 2020.

- Amendments to IAS 1 and IAS 8 definition of "material" (of 31 October 2018) effective for reporting periods commencing on or after 1 January 2020.
- IFRS 14 Regulatory Deferral Accounts (effective for annual periods starting on or after 1 January 2016) the European Commission decided not to propose this interim standard for endorsement in the EU before the final version of IFRS 14 is released.
- The amendments to IFRS 10 Consolidated Financial Statements and IAS 28 Investments in Associates and Joint Ventures the sale or contribution of assets between an investor and its associate or joint venture and subsequent amendments (the effective date of the amendments has been deferred until the research on the equity method is finalized).

The effective dates are the dates arising from the standards published by the International Financial Reporting Board. The effective dates of the standards in the European Union may differ from the effective dates arising from the standards and are announced upon the adoption of the standards by the European Union.

## 3.1.9. EFFECT OF APPLICATION OF NEW ACCOUNTING STANDARDS AND CHANGES IN ACCOUNTING POLICY

#### 3.1.9.1. THE EFFECT OF APPLYING IFRS 1

These financial statements are the first full unconsolidated financial statements of the Company prepared in accordance with IFRSs. These financial statements have been drawn up in accordance with IFRS 1 "First-time Adoption of International Financial Reporting Standards". IFRS 1 requires the Company to recognize all its assets and liabilities that meet the recognition criteria in accordance with IFRSs and refrain from recognising any assets and liabilities the recognition of which is not permitted by IFRSs and classify and measure all items in accordance with IFRSs. The Company adopted IFRSs as of 1 January 2017 and at this date prepared its opening balance following transformation of the closing balance as at 31 December 2016. The Company has drawn up these financial statements using those provisions of each respective applicable IFRS to the extent it was able to elect to do so as at 31 December 2018.

To take into account any identified differences between the Polish Accounting Standards ("PASs") and IFRSs, as of the date of transition to IFRSs, the Company made a PLN 12 thousand adjustment to its equity and deferred tax asset.

The tables below contain a detailed description of the adjustments.

CHANGES IN THE STATEMENT OF FINANCIAL POSITION	AS AT 1 JANUARY 2017 BY PASS	ADJUSTMENTS MSSF	AS AT 1 JANUARY 2017 BY IFRSS	COMMENTARY
ASSETS				
Property, plant and equipment	288	-	288	
Intangible fixed assets	749		749	
Deferred tax assets	-	12	12	А
Long-term receivables	14	-	14	
Trade receivables	-	-	-	
Other receivables	139	-	139	
Cash and cash equivalents	1,421	-	1,421	
Other assets (short-term prepayments)	5	-	5	
TOTAL ASSETS	2,616	12	2,628	

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EQUITY AND LIABILITIES				
Equity	1,754	12	1,766	Α
Provision for pensions and similar benefits	-	_	-	
Other provisions	-	_	-	
Long-term loans and other sources of financing	-	-	-	
Trade liabilities	185	-	185	
Short term loans and other sources of financing	350	-	350	
Other short-term liabilities	327		327	
TOTAL EQUITY AND LIABILITIES	2,616	12	2,628	

CHANGES IN THE STATEMENT OF COMPREHENSIVE INCOME	Year ended 31.12.2017 according to PASs	IFRS adjustments	Year ended 31.12.2017 according according to IFRSs	Commentary
GROSS PROFIT (LOSS)	-3,841	2,890	-951	
General and administrative expenses	-	3,000	3,000	В
Other operating income	11	-	11	
Other operating costs	121	-110	11	С
OPERATING PROFIT (LOSS)	-3,951	-	-3,951	
Financial revenues	36	-	36	
Financial expenses	47	-	47	
PROFIT (LOSS) BEFORE TAX	-3,962	-	-3,962	
PROFIT (LOSS) AFTER TAX	-3,962	23	-3,939	Α

CHANGES IN EQUITY	AS AT 1 JANUARY 2017 (DATE OF ADOPTION OF IFRS)		COMMENTARY	AS AT 31 DECEMBER 2017 (END OF THE LAST PERIOD PRESENTED IN THE FINANCIAL STATEMENTS ACCORDING TO PASS)			COMMENTARY	
	ACCORDING TO PASS	IFRS ADJUSTMENTS	WG MSSF	00 ≥00	ACCORDING TO PASS	IFRS ADJUSTMENTS	WG MSSF	00
Share capital	140	-	140		170	-	170	
Supplementary capital	4,310	-	4,310		11,381	-	11,381	
Retained profit	-2,696	12	-2,684	А	-4,369	35	-4 334	А
EQUITY	1,754	12	1,766		7,182	35	7,217	

As a result of the transformation from the Polish Accounting Standards (PASs) to IFRSs, the Company's Management Board made the following adjustments: The individual changes result from the following differences between PASs and IFRSs:

- a) adjustments resulting from the transformation of the financial statements to comply with IFRSs:
- change in the presentation of a short-term provision for unused annual leaves and other short-term provisions (adjustment C)
- b) adjustments not related to the transformation of financial statements to comply with IFRSs:
- recognition of deferred income tax (adjustment A)
- change in presentation of the statement of comprehensive income from the nature of expenses method to the function of expenses method (adjustment B).

The changes described above in the Company's financial statements also influenced the presentation of items in the statement of cash flows.

STATEMENT OF CASH FLOWS	YEAR ENDED 31.12.2017 ACCORDING TO PASS	IFRS ADJUSTMENTS	YEAR ENDED 31.12.2017 ACCORDING TO IFRSS
CASH FLOWS FROM OPERATING ACTIVITIES			
Profit (loss) before tax	-3,962	-	-3,962
Total adjustments:	211	430	641
Depreciation/amortization	470	-	470
Interest and profit distributions (dividends)	1	-	1
Change in the balance of provisions	110	-110	-
Change in the balance of inventories	5	-5	-
Change in the balance of receivables	-146	5	-141
Change in short-term liabilities, except bank and other loans	311	110	421
Change in prepayments/accruals	-540	430	-110
Other adjustments	-	-	-
Total cash flows from operating activities	-3,751	430	-3,321
CASH FLOWS FROM INVESTING ACTIVITIES			
Outflows	548	430	978
Total cash flows from investing activities	-443	-430	-873
CASH FLOWS FROM FINANCING ACTIVITIES			
Total cash flows from financing activities	8,962	-	8,962
TOTAL CASH FLOWS FROM INVESTING ACTIVITIES	4,768	-	4,768

#### 3.1.9.2. EFFECTS ON DEFERRED TAX

The first time adoption of the IFRSs has not affected the deferred tax value. Upon transformation of the financial statements, the Company recognized, for the first time, deferred tax assets on deductible temporary differences in the amount of PLN 12,000 as at 1 January 2017. No deferred tax liability was recognized as at 1 January 2017.

#### 3.1.10. GOING CONCERN

These financial statements have been prepared on the assumption that the Company will continue in operation for at least 12 months after the balance sheet date. Given the Company's market development stage (the Company yet generate revenues from the sale of products and services, and its activity is financed from equity and subsidies), the ability to continue operations depends to a large extent on the ability to raise further financing, primarily through the issue of shares to finance subsequent stages of commercialization of the technology developed by the Company.

#### 3.1.11. STATEMENT OF CONFORMITY

Pursuant to the resolution of the Extraordinary General Meeting of XTPL S.A. of on the application of IASs/IFRSs, based on Article 45(1a) and Article 45(1c) of the Accounting Act of 29 September 1994, the Issuer will prepare financial statements as of the reporting period starting on 1 January 2018 in accordance with IASs/IFRSs.

#### 3.2. STATEMENT OF FINANCIAL POSITION AS OF 31.12.2018

ASSETS	Note	31.12.2018 PLN'000	31.12.2017 PLN'000	31.12.2016 PLN'000
NON-CURRENT ASSETS		3,931	1,595	1,063
Property, plant and equipment	4,5	757	573	288
Intangible fixed assets	2,2.1	2,872	973	749
Deferred tax assets	8	69	35	12
Long-term receivables	7	233	14	14
CURRENT ASSETS		6,038	6,492	1,565
Trade receivables	11	8	8	-
Other receivables	12	478	272	139
Cash and cash equivalents	14	5,537	6,210	1,421
Other assets	15	15	2	5
TOTAL ASSETS		9,969	8,087	2,628

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EQUITY AND LIABILITIES	Note	31.12.2018 PLN'000	31.12.2017 PLN'000	31.12.2016 PLN'000
TOTAL EQUITY		8,937	7,217	1,766
Share capital	17	178	170	140
Supplementary capital	18	16,340	11,381	4,310
Retained profit (loss carried forward)		-372	-395	-407
Profit (loss) after tax		-7,209	-3,939	-2,277
NON-CURRENT LIABILITIES		1	25	-
Long-term financial liabilities	23	1	25	-
SHORT TERM LIABILITIES		1,031	845	862
Trade liabilities	25	366	310	185
Short-term financial liabilities	23	25	25	350
Other liabilities	26	640	510	327
TOTAL EQUITY AND LIABILITIES		9,969	8.087	2.628

Signatures of Management Board Members

Signature of the person responsible for maintaining books of accounts

Filip Granek

Maciej Adamczyk

Katarzyna Kulik – Chief Accountant

## 3.3. STATEMENT OF COMPREHENSIVE INCOME FOR THE PERIOD FROM 01.01.2018 TO 31.12.2018 – BY FUNCTION

STATEMENT OF COMPREHENSIVE INCOME	Note	1.01.2018 - 31.12.2018 PLN`000	1.01.2017 - 31.12.2017 PLN`000
CONTINUED OPERATIONS			
REVENUE FROM SALES	33,34	2,267	1,763
Revenue from research and development services		-	-
Revenue from the sale of products		-	-
Revenue from grants		2,267	1,763
COST OF SALES	35	3,076	2,714
Research and development expenses		3,076	2,714
Cost of finished goods sold		-	-
GROSS PROFIT (LOSS)		-809	-951
General and administrative expenses	35	6,435	3,000
Other operating income	38	7	11
Other operating costs	39	6	11
OPERATING PROFIT (LOSS)		-7,243	-3,951
Financial revenues	40	54	36
Financial expenses	41	54	47
PROFIT/ LOSS BEFORE TAX		-7,243	-3,962
Income tax	43	-34	-23
NET PROFIT (LOSS) ON CONTINUED OPERATIONS		-7,209	-3,939
DISCONTINUED OPERATIONS		-	-
Net profit (loss) on discontinued operations			
NET PROFIT (LOSS) ON CONTINUED AND DISCONTINUED OPERATIONS		-7,209	-3,939
OTHER COMPREHENSIVE INCOME		-	-
CAŁKOWITE DOCHODY OGÓŁEM TOTAL COMPREHENSIVE INCOME		-7,209	-3,939

NET PROFIT (LOSS) PER SHARE (IN PLN)		
ON CONTINUED OPERATIONS		
Ordinary	-4.04	-2.32
Diluted	-4.04	-2.32
ON CONTINUED AND DISCONTINUED OPERATIONS		
Ordinary	-4.04	-2.32
Diluted	-4.04	-2.32

Signatures of Management Board Members

Signature of the person responsible for maintaining books of accounts

Filip Granek

Maciej Adamczyk

K. Kulik

Katarzyna Kulik – Chief Accountant

# ZOIS ANNUAL RETOR

## 3.4. STATEMENT OF CHANGES IN EQUITY FOR THE PERIOD FROM 01.01.2018 TO 31.12.2018

STATEMENT OF CHANGES IN EQUITY	Share capital	Supplementary capital	Retained profit (loss carried forward)	Total
AS AT 1 JANUARY 2017	140	4,310	-2,684	1,766
Comprehensive income:	-	-	-3,939	-3,939
Profit (loss) after tax	_	-	-3,939	-3,939
Other comprehensive income	_	-	_	_
Transactions with owners:	30	7,071	2,289	9,390
Issue of shares	30	9,360	_	9,390
Distribution of profit	_	-2,289	2,289	_
AS AT 31 DECEMBER 2017	170	11,381	-4,334	7,217

AS AT 1 JANUARY 2018	170	11,381	-4,334	7,217
Comprehensive income:	-	-	-7,209	-7,209
Profit (loss) after tax	-	_	-7,209	-7,209
Other comprehensive income	-	-	-	-
Transactions with owners:	8	4,959	3,962	8,929
Issue of shares	8	8,921	_	8,929
Distribution of profit	_	-3,962	3,962	-
AS AT 31 DECEMBER 2018	178	16,340	-7,581	8,937

Signatures of Management Board Members

Filip Granek

Maciej Adamczyk

Signature of the person responsible for maintaining books of accounts

Katarzyna Kulik – Chief Accountant

## 3.5. STATEMENT OF CASH FLOWS FOR THE PERIOD FROM 01.01.2018 TO 31.12.2018

STATEMENT OF CASH FLOWS	1.01.2018 - 31.12.2018 PLN'000	1.01.2017 - 31.12.2017 PLN'000
CASH FLOWS FROM OPERATING ACTIVITIES		
Profit (loss) before tax	-7,209	-3,962
Total adjustments:	412	641
Depreciation/amortization	531	470
FX gains (losses)	-	-
Interest and profit distributions (dividends)	-49	1
Profit (loss) on investing activities	-3	-
Change in the balance of provisions	295	-
Change in the balance of inventories	-	-
Change in the balance of receivables	-205	-141
Change in short-term liabilities, except bank and other loans	-106	421
Change in prepayments/accruals	-51	-110
Income tax paid	-	-
Other adjustments	-	-
TOTAL CASH FLOWS FROM OPERATING ACTIVITIES	-6,797	-3,321
CASH FLOWS FROM INVESTING ACTIVITIES		
Inflows	57	106
Disposal of tangible and intangible assets	3	91
Interest on financial assets	54	14
Outflows	2,815	979
Acquisition of tangible and intangible fixed assets	2,615	979
Acquisition of financial assets	200	-
Other investment outflows	-	-
TOTAL CASH FLOWS FROM INVESTING ACTIVITIES	-2,758	-873
CASH FLOWS FROM FINANCING ACTIVITIES		
Inflows	8,931	10,639
Contributions to capital	8,931	9,389
Bank and other loans	-	1,250
Other financial inflows	-	-
Outflows	29	1,677
Acquisition of own shares	-	-
Payment of dividend	-	-
Repayment of bank and other loans	-	1,595

Finance lease payments	25	41
Interest	4	41
TOTAL CASH FLOWS FROM FINANCING ACTIVITIES	8,902	8,962
TOTAL CASH FLOWS FROM INVESTING ACTIVITIES	-653	4,768
CHANGE IN CASH AND CASH EQUIVALENTS:	-673	4,789
– change in cash due to FX differences	-	-
CASH AND CASH EQUIVALENTS AT THE BEGINNING OF THE PERIOD	6,189	1,421
CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD, INCLUDING:	5,536	6,189
- restricted cash	-	_

Signatures of Management Board Members

Signature of the person responsible for maintaining books of accounts

Filip Granek

Maciej Adamczyk

K. Kulik

Katarzyna Kulik - Chief Accountant

#### NOTES TO THE FINANCIAL STATEMENTS 3.6.

#### 3.6.1. NOTE 1 - GOODWILL

As at 31 December 2018, no goodwill was reported in the Company's statement of financial position.

#### 3.6.2. NOTE 2 - OTHER INTANGIBLE ASSETS

OTHER INTANGIBLE ASSETS	31.12.2018	31.12.2017
Acquired concessions, patents, licenses and similar rights	2	8
Other intangible fixed assets	334	535
Intangible assets under development	2,536	430
TOTAL	2,872	973

All intangible assets are the property of the Company; none of these assets are used based on any rental, lease or a similar contract.

The intangible assets are not used as collateral.

As at 31 December 2018, the Company did not have any agreements whereby it would be required to purchase any intangible assets.

## 3.6.3. NOTE 2.1 - CHANGE IN OTHER INTANGIBLE ASSETS BY TYPE As at 31.12.2018

CHANGES IN OTHER INTANGIBLE ASSETS BY TYPE (except intangible assets under development)	Development costs	Right of perpetual usufruct of land	Computer software	Acquired concessions, patents, licenses rights	Other intangible assets	Other total intangible assets
Gross value of intangible assets at the beginning of the period	-	-	-	41	1,070	1,111
increases	=	=	=	5	25	30
acquisition	=	=	=	5	25	30
decreases	=	=	-	-	=	-
Gross value of intangible assets at the end of the period	-	-	-	46	1,095	1,141
Accumulated amortization at the beginning of the period	-	-	-	33	535	568
amortization for the period	=	=	=			
increases	=	=	=	11	226	237
amortization for the current period	=	=	=	11	226	237
decreases	-	-	-	-	-	-
Cumulated amortization at the end of the period	-	-	-	44	761	805
impairment allowances at the beginning of the period	-	-	-	-	-	-
impairment allowances at the end of the period	-	-	-	-	-	-
Net value of other intangible assets at the end of the period	-	-	-	2	334	336

#### As at 31.12.2017

CHANGES IN OTHER INTANGIBLE ASSETS BY TYPE (except intangible assets under development)	Development costs	Right of perpetual usufruct of land	Computer software	Acquired concessions, patents, licenses rights	other intangible assets	Other total intangible assets
Gross value of intangible assets at the beginning of the period	-	-	-	13	1,070	1,083
increases	-	-	-	28	-	28
acquisition	-	-	-	28	_	28
decreases	-	-	-	-	-	-
Gross value of intangible assets at the end of the period	-	-	-	41	1,070	1,111
Accumulated amortization at the beginning of the period	-	-	-	13	321	334
amortization for the period	-	-	-			
increases	-	-	-	20	214	234
amortization for the current period	-	-	-	20	214	234
decreases	-	-	-	-	-	-
Cumulated amortization at the end of the period	-	-	-	33	535	568
impairment allowances at the beginning of the period	-	-	-	-	-	-
impairment allowances at the end of the period	-	-	-	-	-	-
Net value of other intangible assets at the end of the period	-	-	-	8	535	543

#### 3.6.4. NOTE - AMORTIZATION OF INTANGIBLE ASSETS

Amortization of intangible assets is included in the following items as part of the statement of comprehensive income.

ITEM IN THE STATEMENT OF COMPREHENSIVE INCOME	Year ended 31.12.2018	Year ended 31.12.2017
Research and development expenses	166	222
Cost of finished goods sold	-	-
General and administrative expenses	71	12
TOTAL	237	234

#### 3.6.5. NOTE 4 - PROPERTY, PLANT AND EQUIPMENT

PROPERTY, PLANT AND EQUIPMENT	31.12.2018	31.12.2017
Tangible assets, including:	534	572
technical equipment and machines	415	378
vehicles	25	50
other fixed assets	94	144
Fixed assets under construction	223	1
PROPERTY, PLANT AND EQUIPMENT	757	573

In the above reporting periods, the Company did not use its assets as collateral.

As at 31 December 2018, the Company did not have any agreements that would oblige it to purchase any tangible assets.

FIXED ASSETS ON BALANCE SHEET (OWNERSHIP STRUCTURE)	31.12.2018	31.12.2017
own	509	522
used based on any rental, lease or a similar contract, including:	25	50
finance lease	25	50
TOTAL FIXED ASSETS ON THE BALANCE SHEET	534	572

## 3.6.6. NOTE 5 - CHANGES IN FIXED ASSETS BY TYPE As at 31.12.2018

CHANGES IN FIXED ASSETS BY TYPE (except for fixed assets under construction)	LAND	BUILDINGS AND STRUCTURES	TECHNICAL EQUIPMENT AND MACHINES	VEHICLES	OTHER FIXED ASSETS	TOTAL FIXED ASSETS
Gross value of at the beginning of the period	-	-	561	91	234	885
increases	=	-	268	=	13	281
acquisition	=	-	268	-	13	281
Decreases	=	-	-	-	=	-
Gross value at the end of the period	-	-	829	91	247	1,167
Accumulated depreciation at the beginning of the period	-	-	183	41	90	314
Increases	-	-	231	25	63	319
depreciation for the current period	-	-	231	25	63	319
decreases	-	-	-	-	-	-

Accumulated depreciation at the end of the period	-	-	414	66	153	633
impairment allowances at the beginning of the period	-	-	-	-	-	-
impairment allowances at the end of the period	-	-	-	-	-	-
Net value of fixed assets at the end of the period	-	-	415	25	94	534

#### As at 31.12.2017

CHANGES IN FIXED ASSETS BY TYPE (except for fixed assets under construction)	LAND	BUILDINGS AND STRUCTURES	TECHNICAL EQUIPMENT AND MACHINES	VEHICLES	OTHER FIXED ASSETS	TOTAL FIXED ASSETS
Gross value of at the beginning of the period	-	-	73	91	160	324
increases	=	=	488	=	73	561
acquisition	=	=	488	-	73	561
Decreases	=	=	=	=	=	-
Gross value at the end of the period	-	-	561	91	234	885
Accumulated depreciation at the beginning of the period	-	-	44	-	33	77
Increases	=	=	138	41	57	236
depreciation for the current period	-	-	138	41	57	236
decreases	-	-	-	-	-	-
Accumulated depreciation at the end of the period	-	-	183	41	90	314
impairment allowances at the beginning of the period	-	-	-	-	-	-
impairment allowances at the end of the period	-	-	-	-	-	-
Net value of fixed assets at the end of the period	-	-	378	50	144	572

Depreciation of fixed assets is reported in the following items of the statement of comprehensive income.

ITEMS OF THE STATEMENT OF COMPREHENSIVE INCOME	YEAR ENDED 31.12.2018	YEAR ENDED 31.12.2017
Research and development expenses	149	142
General and administrative expenses	170	94
TOTAL	319	236

#### 3.6.7. NOTE 6 - CHANGE IN INVESTMENT PROPERTIES

As at 31 December 2018, no investment properties were included in the Company's statement of financial position.

#### 3.6.8. NOTE 7 - LONG-TERM RECEIVABLES

LONG-TERM RECEIVABLES	31.12.2018	31.12.2017
Finance lease receivables	-	-
Receivables in respect of security deposits, collateral and guarantees	14	14
Other receivables	219	-
Gross long-term receivables	233	14
impairment allowances for long-term receivables	-	-
Net long-term receivables	233	14
- including from related parties	219	-

LONG-TERM RECEIVABLES - AGE STRUCTURE (EXCLUDING FINANCE LEASE RECEIVABLES)	31.12.2018	31.12.2017
1 to 3 years	233	14
3 to 5 years	-	-
above 5 years	-	-
Total net long-term receivables without leasing	233	14

#### 3.6.9. NOTE 8 - DEFERRED INCOME TAX ASSETS DUE TO NEGATIVE TEMPORARY DIFFERENCES

DEFERRED TAX ASSETS DUE TO NEGATIVE TEMPORARY DIFFERENCES	Statement of finar	Impact on the statement of comprehensive income	
	31.12.2018	31.12.2017	1.01.2018- 31.12.2018
DUE TO DIFFERENCES BETWEEN THE TAX VALUE AND THE CARRYING AMOUNT:			
Provisions for payroll and similar costs (including bonuses, jubilee awards, non-staff expenses)	17	18	1
Accruals for unused annual leaves	34	18	-16
Provision for the cost external services	22	3	-19
Total deferred tax assets	73	39	-34
Set-off with a deferred tax liability	4	4	-
Total net deferred tax assets	69	35	-34

## 3.6.10. NOTE 8.1 - NEGATIVE TEMPORARY DIFFERENCES, TAX LOSSES, UNUSED TAX CREDITS FOR WHICH NO DEFERRED TAX ASSET WAS RECOGNIZED IN THE STATEMENT OF FINANCIAL POSITION

NEGATIVE TEMPORARY DIFFERENCES, TAX LOSSES, UNUSED TAX CREDITS FOR WHICH NO DEFERRED TAX ASSET WAS RECOGNIZED IN THE STATEMENT OF FINANCIAL POSITION	Basis for the asset at the end of 31.12.2018	Basis for the asset at the end of 31.12.2017	Date of expiry of negative temporary differences, tax losses, unused tax credits
In respect of:			
Tax losses	12,316	5,977	2021/2023
TOTAL	12,316	5,977	-

No deferred tax asset was created under the above heading due to uncertainty as to the possibility of using this asset in future periods.

#### 3.6.11. NOTE 9 - INVENTORIES

As at 31 December 2018, the Company did not have any inventories.

#### 3.6.12. NOTE 10 - LONG-TERM CONTRACTS

As at 31 December 2018, the Company was not party to any long-term contract

#### 3.6.13. NOTE 11 - SHORT-TERM RECEIVABLES

TRADE RECEIVABLES	31.12.2018	31.12.2017
Trade receivables, including:	8	8
up-to-date	8	8
overdue	-	-
including claimed in court	-	-
Total gross trade receivables	8	8
Impairment allowances for receivables	-	-
Total net trade receivables	8	8
- from related parties	-	-

As at 31 December 2018, the Company did not recognize any impairment allowances on trade receivables.

#### 3.6.14. NOTE 12 - OTHER RECEIVABLES

OTHER RECEIVABLES	31.12.2018	31.12.2017
Other receivables, including:		
Statutory receivables (except income tax)	343	263
Other receivables (including security deposits, advances for fixed assets, inventories, deliveries)	135	9
including claimed in court	-	-
Total gross other receivables	478	272
Impairment allowances for receivables	-	-
Total net other receivables	478	272
- from related parties	-	=

#### 3.6.15. NOTE 13 - FINANCE LEASE RECEIVABLES

As at 31 December 2018, the Company did not have any finance lease receivables

#### 3.6.16. NOTE 14 - CASH AND CASH EQUIVALENTS

CASH AND CASH EQUIVALENTS	31.12.2018	31.12.2017
Cash, including:	4,235	289
– on hand	-	-
– cash in bank	4,235	289
Other cash (short term deposits)	1,302	5,921
Other cash assets	-	_
TOTAL CASH AND OTHER CASH ASSETS	5,537	6,210

As at 31.12.2018, the Company did not have any restricted cash.

#### 3.6.17. NOTE 15 - OTHER SHORT-TERM ASSETS

OTHER SHORT-TERM ASSETS	31.12.2018	31.12.2017
Short-term prepayments, including for:	15	2
Insurance policies	15	2
TOTAL OTHER SHORT-TERM ASSETS	15	2

#### 3.6.18. NOTE 16 - ASSETS HELD FOR SALE

In the current and comparable periods, the Company did not recognize any held-for-sale assets or assets related to discontinued operations.

#### 3.6.19. NOTE 17 - CHANGES IN SHARE CAPITAL

CHANGE IN SHARE CAPITAL	1.01.2018- 31.12.2018	1.01.2017- 31.12.2017
Balance at the beginning of the period	170	140
increases	8	30
decreases	-	-
BALANCE AT THE END OF THE PERIOD	178	170

On 22 August 2018, the Company's Extraordinary General Meeting adopted a resolution to increase the Company's share capital by issuing series N shares with a nominal value of PLN 0.10 each and a total nominal value of PLN 4,700.

On 26 September 2018, the Company's Extraordinary General Meeting adopted a resolution to increase the Company's share capital by issuing series O shares with a nominal value of PLN 0.10 each and a total nominal value of PLN 4,140.

#### 3.6.20. NOTE 18 - OTHER CAPITALS

SUPPLEMENTARY CAPITAL	31.12.2018	31.12.2017
Share premium	16 340	11 381
TOTAL SUPPLEMENTARY CAPITAL	16 340	11 381

#### 3.6.21. NOTE 19 - LONG-TERM PROVISIONS FOR EMPLOYEE BENEFITS

As at 31 December 2018, the Company did not have any long-term provisions for employee benefits.

#### 3.6.22. NOTE 20 - OTHER LONG-TERM PROVISIONS

As at 31 December 2018, the Company did not have any long-term provisions.

#### 3.6.23. NOTE 21 - OBLIGATIONS IN RESPECT OF BORROWINGS

As at 31 December 2018, the Company did not have any obligations in respect of borrowings.

#### 3.6.24. NOTE 22 - DEFERRED TAX LIABILITY CAUSED BY POSITIVE TEMPORARY DIFFERENCES

DEFERRED TAX LIABILITY CAUSED BY POSITIVE TEMPORARY DIFFERENCES	Statement of finar	Impact on the statement of comprehensive income	
	31.12.2018	31.12.2017	1.01.2018-31.12.2018
IN RESPECT OF:			
Interest on loans and deposits	4	4	-
Total deferred tax liability	4	4	-
Set-off with deferred tax assets	-4	-4	-
Total net deferred tax liability	_	_	_

#### 3.6.25. NOTE 23 - FINANCE LEASE OBLIGATIONS

FINANCE LEASE OBLIGATIONS (FOR THE LESSEE)	Minimum lea	se payments	Current value of minimum lease payments		
(FOR THE LESSEE)	31.12.2018	31.12.2017	31.12.2018	31.12.2017	
Finance lease obligations, payable:					
Up to one year	27	27	26	25	
up to 1 month	2	2	2	2	
1 to 3 months	5	5	4	4	
3 to 6 months	7	7	6	6	
6 to 12 months	13	13	14	13	
1 to 5 years inclusive	-	27	-	25	
Above 5 years	_	-	-	-	
TOTAL:	27	54	26	50	
Less: costs to be incurred in subsequent periods	1	4	-	-	
CURRENT VALUE OF MINIMUM LEASE PAYMENTS	26	50	26	50	
Long term lease obligations (payable over more than 12 months)	-	-	1	25	
Short-term lease obligations (payable up to 12 months)	-	-	25	25	

The Company uses a passenger car under a finance lease agreement.

The lease period is 3 years.

As at 31.12.2018, the fair value of finance lease obligations is not significantly different from the carrying amount.

#### 3.6.26. NOTE 24 - OPERATING LEASE OBLIGATIONS

As at 31 December 2018, the Company did not have any obligations in respect of operating leases.

#### 3.6.27. NOTE 25 - SHORT-TERM TRADE LIABILITIES

SHORT-TERM TRADE LIABILITIES	31.12.2018	31.12.2017
due to related parties	-	-
due to other entities	366	310
TOTAL SHORT TERM TRADE LIABILITIES	366	310

#### 3.6.28. NOTE 26 - OTHER SHORT-TERM LIABILITIES

OTHER SHORT-TERM LIABILITIES	31.12.2018	31.12.2017
SHORT TERM LIABILITIES:		
in respect of dividends	-	-
statutory obligations, except income tax	129	238
employee benefits	367	259
purchase of non-financial (investment) fixed assets	2	11
in respect of business travel costs	107	-
Other	35	2
TOTAL OTHER SHORT-TERM LIABILITIES	640	510

#### 3.6.29. NOTE 27 - OBLIGATIONS IN RESPECT OF STAFF BENEFITS

OBLIGATIONS IN RESPECT OF EMPLOYEE BENEFITS	31.12.2018	31.12.2017
SHORT TERM LIABILITIES:		
remuneration	190	163
payments for unused annual leave	177	96
TOTAL:	367	259

#### 3.6.30. NOTE 28 - LIABILITIES DIRECTLY RELATED TO ASSETS CLASSIFIED AS HELD FOR SALE

In the current and comparable periods, the Company did not recognize any liabilities related to held-for-sale assets or to discontinued operations.

#### 3.6.31. NOTE 29 - CONTINGENT LIABILITIES

Contingent liabilities granted by the Company were in the form of promissory notes together with promissory note declarations to secure the agreement for co-financing projects financed by the EU as well as a finance lease agreement.

1. Agreement No. POIR.01.01.01-00-1690/15-00 – a promissory note for 100% of co-financing plus interest, i.e. PLN 9,846,969.14 plus interest.

- 2. Agreement No. POIR.02.03.04-02-0001/16-00 a promissory note for 100% of co-financing plus interest, i.e. PLN 387,100.00 plus interest.
- 3. Agreement No. GO\_GLOBAL.PL(II)-0011/16 a promissory note for 200% of co-financing plus interest, i.e. PLN 132,783.81 plus interest.
- 4. Agreement No. UDA-POIR.03.01.05-02-0003/17-00 a blank promissory note with a "pay to order" clause and a signature notarized or submitted in the presence of a person authorized by an intermediary institution together with a promissory note declaration.
- 5. Lease agreement No. 0360032016/KR/246634 a blank promissory note with a promissory note declaration ZAB/297457/17/86262291.
- 6. Blank promissory note issued on 4 April 2018, together with a promissory note declaration, to Santander Bank Polska S.A. as security for the overdraft agreement signed on 4 April 2018. The overdraft was granted for up to PLN 300 thousand.

CONTINGENT LIABILITIES	31.12.2018	31.12.2017
Promissory notes	4,094	2,631
TOTAL CONTINGENT LIABILITIES	4,094	2,631

At the balance sheet dates presented and until the date of preparation of the financial statements, no events occurred that could result in materialization of the above contingent liabilities.

#### 3.6.32. NOTE 30 - TAX SETTLEMENTS

Tax payment and other regulated areas of business (including customs or currency-related activities) may be subject to inspection by administrative bodies, which have the right to impose high fines and sanctions. In the absence of well-established legislation, Polish regulations tend to be unclear and inconsistent. There are frequent differences in interpretation of tax regulations both within State administration bodies and between such bodies and corporations, which gives rise to uncertainties and conflicts. As a result, the tax risk in Poland is substantially higher than in the countries with a more mature tax system.

Tax payments may be inspected for five years after the year when the tax was paid. As a result of inspections, additional tax may be assessed for the Company in addition to the tax paid before. In the Company's opinion, as at 31 December 2018, appropriate provisions existed for the identified and quantifiable tax risk.

#### 3.6.33. NOTE 31 - CASH IN VAT ACCOUNT

As at 31 December 2018, the Company did not have any cash in its VAT account.

#### 3.6.34. NOTE 32 - COMPLETED ASSET IMPAIRMENT TESTS

As required by IAS 36, the Company's Management Board carried out an impairment test for the Company's assets: in-process development expenditure, by comparing their carrying amount with recoverable amount. As part of the procedure, the management tested all the previous assumptions underlying the decisions to recognize the development expenditure as an asset. The management verified the likelihood and value of future economic benefits, the ability to complete the intangible assets to be available for use or sale, the availability of appropriate technical, financial and other means to be used to complete the development and use or sell the intangible asset as well as the size and possibility of a reliable estimation of the development expenditure incurred during the development project where such expenditure can be allocated to relevant

intangible assets. The test was based on a 5-year forecast, with discount rate of 21.73%. The discount rate includes a risk-free rate based on 10Y treasury bonds, a market risk premium based on A. Damodaran's calculations, 1Y WIBOR + commercial banks' margin, and a beta calculated on the basis of the Company's quotations. The discount rate also takes into account the specific risk of the Company and the premium for the type of assets. The test results showed that the recoverable amount of intangible assets exceeds their carrying amount, so there is no need to post any impairment allowances for those assets.

#### SENSITIVITY ANALYSIS FOR THE ASSET IMPAIRMENT TEST

				W	ACC CHANGE			
		20.23%	20.73%	21.23%	21.73%	22.23%	22.73%	23.23%
TH	0.25%	12,739	12,348	11,975	11,622	11,285	10,964	10,658
GROWTH FORECAS <sup>7</sup>	0.50%	12,827	12,429	12,052	11,693	11,351	11,026	10,716
	0.75%	12,917	12,513	12,130	11,766	11,420	11,090	10,776
IN THE ER THE I	1.00%	13,009	12,599	12,210	11,840	11,489	11,155	10,837
	1.25%	13,104	12,687	12,292	11,917	11,561	11,222	10,899
CHANGE RATE AFT	1.50%	13,201	12,777	12,376	11,995	11,634	11,290	10,963
0 2	1.75%	13,301	12,870	12,462	12,076	11,709	11,360	11,029

#### 3.6.35. NOTE 33 - NET REVENUE FROM SALES

NET REVENUE FROM SALES	1.01.2018-31.12.2018	1.01.2017-31.12.2017
Revenue from research and development services	-	-
Revenue from the sale of products	-	-
Revenue from grants	2,267	1,763
TOTAL NET REVENUE FROM SALES	2,267	1,763

#### 3.6.36. NOTE 34 - GEOGRAPHICAL STRUCTURE OF REVENUE FROM SALES

NET REVENUE FROM SALES	1.01.2018-31.12.2018	1.01.2017-31.12.2017
Country	2,267	1,763
Abroad	-	-
TOTAL NET REVENUE FROM SALES	2,267	1,763

#### 3.6.37. NOTE 35 - OPERATING COSTS

OPERATING COSTS	1.01.2018-31.12.2018	1.01.2017-31.12.2017
Depreciation/ amortization, including	559	470
- depreciation of tangible assets	347	236
- amortization of intangible assets	212	234
Use of raw materials and consumables	1,439	313
External services	4,283	2,246
Cost of employee benefits	4,500	2,778
Fees and charges	80	47
Other costs by type	761	292
Value of goods and materials sold	-	-
TOTAL COSTS BY TYPE, INCLUDING:	11,622	6,146
Items reported as research and development costs	3,076	2,714
Items reported as cost of finished goods sold	-	-
Items reported as general and administrative expenses	6,435	3,000
Change in finished goods	5	2
Cost of producing services for internal needs of the entity	2,106	430

#### 3.6.38. NOTE 36 - COST OF EMPLOYEE BENEFITS

EMPLOYEE BENEFITS	1.01.2018-31.12.2018	1.01.2017-31.12.2017
Remuneration costs (including provisions)	3,782	2,388
Costs of social insurance and other benefits	718	390
TOTAL BENEFITS	4,500	2,778

#### 3.6.39. NOTE 37 - EMPLOYMENT

AVERAGE EMPLOYMENT (NO. OF PEOPLE)	31.12.2018	31.12.2017
Manual workers	-	-
Office workers	36	20
TOTAL	36	20

#### 3.6.40. NOTE 38 - OTHER OPERATING INCOME

OTHER OPERATING INCOME	1.01.2018-31.12.2018	1.01.2017-31.12.2017
Gain on disposal of non-financial fixed assets	3	-
Other income	4	11
TOTAL OTHER OPERATING INCOME	7	11

#### 3.6.41. NOTE 39 - OTHER OPERATING COSTS

OTHER OPERATING COSTS	1.01.2018-31.12.2018	1.01.2017-31.12.2017
Loss on disposal of non-financial fixed assets	-	-
Other costs	6	11
TOTAL OTHER OPERATING COSTS	6	11

#### 3.6.42. NOTE 40 - FINANCIAL REVENUES

INTEREST REVENUE	1.01.2018-31.12.2018	1.01.2017-31.12.2017
Interest on bank accounts	54	36
TOTAL NET FINANCIAL REVENUES	54	36

#### 3.6.43. NOTE 41 - FINANCIAL EXPENSES

FINANCIAL EXPENSES	1.01.2018-31.12.2018	1.01.2017-31.12.2017
Financial expenses in respect of finance leases	5	2
Interest on other receivables	-	34
FX losses	49	11
TOTAL FINANCIAL EXPENSES	54	47

#### 3.6.44. NOTE 42 - OPERATING SEGMENTS

In the period covered by this financial statements, the Company has not identified operating segments in accordance with IFRS 8. The Company's development phase and a lack of revenues from operating activities made it impossible to identify segments that would meet the criteria set by the above standard.

#### 3.6.45. NOTE 43 - INCOME TAX CHARGE

TAX CHARGE TO PROFIT OR LOSS	1.01.2018-31.12.2018	1.01.2017-31.12.2017
Current income tax	-	-
Deferred income tax	-34	-23
Total tax charge carried in profit or loss, including:	-34	-23
attributable to continued operations	-34	-23
attributable to discontinued operations	-	-

#### 3.6.46. NOTE 44 - RECONCILIATION OF THE EFFECTIVE TAX RATE

RECONCILIATION OF THE EFFECTIVE TAX RATE	1.01.2018-31.12.2018	1.01.2017-31.12.2017
Gross profit/(loss) before tax on continued operations	-7,243	-3,962
Profit/(loss) before tax on discontinued operations	-	-
PROFIT/(LOSS) BEFORE TAX	-7,243	-3,962
TAX AT THE POLISH STATUTORY RATE OF 19%	1,376	753
Unrecognized deferred tax assets in respect of tax loss	-1,204	-691
Non-tax deductible costs	-2,932	-460
Increase in tax costs	-	-
NON-TAXABLE REVENUES	2,266	421
Tax at the effective tax rate of 8% (1% in 2017)	34	23
Income tax (charge) recognized in the statement of comprehensive income	34	23
Income tax attributable to discontinued operations	-	-

#### 3.6.47. NOTE 45 - PROPOSED PROFIT DISTRIBUTIONS (LOSS COVER) FOR THE FINANCIAL YEAR

The Management of the Company proposes to cover the current period's loss of PLN 7,209 thousand from the the supplementary capital.

#### 3.6.48. NOTE 46 - DIVIDEND PAYMENT

The Company did not pay dividends in the current or the previous period. No interim dividends were paid either.

#### 3.6.49. NOTE 47 - DISCONTINUED OPERATIONS

No discontinued operations occurred either in the current or in the previous reporting period.

#### 3.6.50. NOTE 48 - FAIR VALUE OF THE INDIVIDUAL CLASSES FINANCIAL ASSETS AND LIABILITIES

	Category in	Book	value	Fair	/alue
	accordance with IFRS 9	31 December 2018	31 December 2017	31 December 2018	31 December 2017
FINANCIAL ASSETS					
Trade receivables	WwgZK	8	8	8	8
Other receivables	WwgZK	478	272	478	272
Cash and cash equivalents	WwWGpWF	5,537	6,210	5,537	6,210
TOTAL		6,023	6,490	6,023	6,490
FINANCIAL LIABILITIES					
Interest bearing bank and other loans	PZFwgZK	-	-	-	-
Finance lease liabilities	PZFwgZK	26	50	26	50
Trade liabilities	PZFwgZK	366	310	366	310
Other liabilities	PZFwgZK	639	485	639	485
TOTAL		1,031	845	1,031	845

Abbreviations used:

WwgZK - Measured at amortized cost

PZFwgZK - Other financial liabilities measured at amortized cost

WwWGpWF - Financial assets/ liabilities measured at fair value through profit or loss

Fair value of financial instruments that the Company held as at 31 December 2018 and 31 December 2017 was not materially different from the values presented in the financial statements. This is because:

- with regard to short-term instruments the potential effect of discount is not material;
- the instruments relate to the transactions concluded on market terms.

As at 31 December 2018, the Company did not have any financial instruments measured at fair value.

As at 31 December 2018 and 31 December 2017, the Company had no financial instruments in a currency other than the functional currency of more than PLN 1,000.

## 3.6.51. NOTE 49 - REVENUES, EXPENSES, PROFITS AND LOSSES BY CATEGORIES OF FINANCIAL INSTRUMENTS

Year ended 31.12.2018

FINANCIAL ASSETS	Category as per IFRS 9	Interest income/ expenses	FX (gains)/ losses	Total
Cash and cash equivalents	WwWGpWF	2	-	2
TOTAL		2	-	2

FINANCIAL LIABILITIES	Category as per IFRS 9	Interest income/ expenses	FX (gains)/ losses	Total
Interest bearing bank and other loans	PZFwgZK	-	-	-
Finance lease liabilities	PZFwgZK	(1)	-	(1)
Trade liabilities	PZFwgZK	-	-	_
TOTAL		(1)	-	(1)

Year ended 31.12.2017

FINANCIAL ASSETS	Category as per IFRS 9	Interest income/ expenses	FX (gains)/ losses	Total
Cash and cash equivalents	WwWGpWF	2	-	2
TOTAL		2	-	2

FINANCIAL LIABILITIES	Category as per IFRS 9	Interest income/ expenses	FX (gains)/ losses	Total
Interest bearing bank and other loans	PZFwgZK	(34)	-	(34)
Finance lease liabilities	PZFwgZK	(2)	-	(2)
Trade liabilities	PZFwgZK	-	(11)	(11)
TOTAL		(36)	(11)	(47)

## 3.6.52. NOTE 50 - HEDGE ACCOUNTING

The Company does not use hedge accounting.

## 3.6.53. NOTE 51 - CAPITAL MANAGEMENT

The key goal of the Company's capital management is to maintain good credit rating and safe capital ratios to facilitate the Group's operations and increase its value.

The Company manages its capital structure, and modifies it in response to changes in the economic conditions.

In the years ended 31 December 2018 and 31 December 2017 no changes were made to the goals, rules and processes applicable in this area.

CAPITAL MANAGEMENT	31.12.2018	31.12.2017
Interest bearing borrowings	-	-
Trade and other liabilities	714	820
Less cash and cash equivalents	-5,537	-6,210
Net debt	-4,823	-5,390
Equity	8,937	7,217
Equity and net debt	4,114	1,827
Leverage	-117%	-295%

## 3.6.54. NOTE 52 - CAPITAL EXPENDITURES

The table below shows capital expenditures incurred, including on non-financial fixed assets and completed and planned investments into environmental protection.

CAPITAL EXPENDITURE INCURRED	1.01.2018 - 31.12.2018	1.01.2017 - 31.12.2017
– including on environmental protection		
Expenditures on fixed assets under construction	222	341
Tangible assets purchased	174	220
Intangible assets purchased	102	28
Investments in properties	-	_
Total investments in non-financial fixed assets	498	589
Loans granted	-	-
Acquisition of treasury bills	-	-
Acquisition of shares	-	-
Total investments in financial fixed assets	-	-
TOTAL CAPITAL EXPENDITURE	498	589

Over the next 12 months from the balance sheet date, the Company plans to incur capital expenditures of approx. PLN 1,200 thousand on the purchase of non-financial and financial fixed assets in the form of construction of new-generation laboratory printers and additional laboratory and IT equipment.

### 3.6.55. NOTE 53 - DESCRIPTION OF THE POST-EMPLOYMENT BENEFIT PLAN

The Company does not operate any post-employment benefit plans within the meaning of IAS 19.

## 3.6.56. NOTE 54 - EXPLANATIONS TO THE STATEMENT OF CASH FLOWS

Presented below are notes to selected items of the statement of cash flows.

Reconciliation of the profit-before tax disclosed in the statement of cash flows

	31.12.2018	31.12.2017
PBT presented in the statement of comprehensive income	-7,209	-3,962
PBT presented in the statement of cash flows	-7,209	-3,962

INTEREST AND DIVIDENDS IN THE STATEMENT OF CASH FLOWS	For the period 01.01.2018-31.12.2018	For the period 01.01.2017-31.12.2017
Realized interest on investing activities	-54	-14
Realized interest on financing activities	4	41
Unrealized interest on financing activities	1	-26
TOTAL INTEREST AND DIVIDENDS:	-49	1

CHANGE IN THE BALANCE OF RECEIVABLES	For the period 01.01.2018-31.12.2018	For the period 01.01.2017-31.12.2017
Change in the balance of trade receivables	-	-8
Other receivables	-205	-133
TOTAL CHANGE IN THE BALANCE OF RECEIVABLES	-205	-141

CHANGE IN THE BALANCE OF LIABILITIES	For the period 01.01.2018-31.12.2018	For the period 01.01.2017-31.12.2017
Change in the balance of trade liabilities	-131	125
Other liabilities	25	296
TOTAL CHANGE IN THE BALANCE OF LIABILITIES:	-106	421

CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD	For the period 01.01.2018-31.12.2018	For the period 01.01.2017-31.12.2017
Statement of cash flows	5,536	6,189
Statement of financial position	5,537	6,210

The difference of PLN 1,000 between the balance of cash at the end of the period beginning on 1 January 2018 and ending 31 December 2018 between the statement of financial position and the statement of cash flows results from the calculation of interest on bank term deposits as at the balance sheet date.

## 3.6.57. NOTE 55 - RELATED PARTY TRANSACTIONS

Presented below are related party transactions and unsettled receivables and liability balances with related parties on the balance sheet date.

2018	With associates	With joint ventures	With key management personnel*	With other related parties**
Purchase of services	-	-	891	240
Loans granted	-	-	200	-
Financial expenses – interest on loans	-	-	19	-

2017	With associates	With joint ventures	With key management personnel*	With other related parties**
Purchase of services	_	-	-	588
Loans received	-	-	250	1,000
Financial expenses – interest on loans	-	-	5	30

<sup>\*</sup> the item includes persons who have the authority and responsibility for planning, managing and controlling the Company's activities

<sup>\*\*</sup> the item includes entities linked through key management

Terms of related party transactions

Sales to and purchases from related parties are made on an arm's length basis. Any overdue liabilities/ receivables existing at the end of the period are interest-free and settled on cash or non-cash basis. The Company does not charge late interest from other related entities. Receivables from or liabilities to related parties are not covered by any guarantees given or received. They are not secured in any other way either. Balance at the end of the period, i.e. on 31 December 2018, the Company did not create any allowances for doubtful receivables from related parties. In each financial year, an assessment is carried out which involves examining the financial position of the related party and the market in which it operates.

## 3.7. EVENTS OCCURRING AFTER THE BALANCE SHEET DATE

On 24 April 2019, the Company's Extraordinary General Meeting of Shareholders adopted a resolution on repealing the previous incentive scheme (adopted on 29 November 2017) and authorizing the Supervisory Board – in relation to the Management Board Members, and the Management Board – with respect to other scheme participants, to settle the scheme for 2018 and establish the rules for concluding agreements with scheme participants limiting the transferability of shares. The settlement of the old program will take place in 2019.

On 24 April 2019, the Company's Extraordinary General Meeting of Shareholders adopted a resolution on creating a new incentive scheme (based on shares and subscription warrants, and consequently the issuance of new series P shares, conditional capital increase and the issuance of new series R shares and the issuance of series A subscription warrants).

On 24 April 2019, the Company's Extraordinary General Meeting of Shareholders adopted a resolution to increase the Company's share capital by PLN 4,260.20 (four thousand two hundred and sixty zlotys and 20/100) to PLN 182,622.20 (one hundred and eighty two thousand six hundred and twenty two zlotys and 20/100) through the issue of 42,602 (forty two thousand six hundred and two) series P ordinary bearer shares with a nominal value of PLN 0.10 (ten groszy) each. As of the date of publication of the report, the change had not been registered by the registry court.

On 24 April 2019, the Company's Extraordinary General Meeting of Shareholders adopted a resolution to conditionally increase the Company's share capital by no more than PLN 18,262.20 (eighteen thousand two hundred and sixty two zlotys and 20/100) through the issue of no more than 182,622 (one hundred and eighty two thousand six hundred and twenty two) series R ordinary bearer shares with a nominal value of PLN 0.10 (ten groszy) each. As of the date of publication of the report, the change had not been registered by the registry court.

On 24 April 2019, the Company's Extraordinary General Meeting adopted a resolution to issue no more than 182,622 (one hundred and eighty two thousand six hundred and twenty two) registered A series subscription warrants – subject to registration of the conditional increase in the Company's share capital, adopted on the basis of Resolution No. 06/04/2019 of the Extraordinary General Meeting of 24 April 2019. As of the date of publication of the report, the change had not been registered by the registry court.

Series P and R shares and series A subscription warrants were issued for the purpose of implementation of the incentive scheme for the management, employees and collaborators of the Company.

## 3.7.1. SUBSIDIARY

On 31 January 2019, XTPL S.A. acquired shares in XTPL INC, a newly formed entity based in the state of Delaware, United States. In addition, a framework loan agreement was signed, with three loan tranches (totaling USD 382 thousand) disbursed by the date of publication of this report.

## 3.8. UNIFORM DESCRIPTION OF SIGNIFICANT ACCOUNTING PRINCIPLES

#### 3.8.1. INTANGIBLE FIXED ASSETS

Intangible assets are recognized if:

- a) the intangible asset is identifiable
- b) the intangible asset is is controllable
- c) it is possible to identify the way of achieving future economic benefits generated by the intangible asset

The identification criteria is met if:

- a) the asset is separable, i.e. is capable of being separated or divided from the entity and sold, transferred, licensed, rented or exchanged, either individually or together with a related contract, asset or liability; or
- b) arises from contractual or other legal rights, regardless of whether those rights are transferable or separable from the entity or from other rights and obligations.

An entity controls an asset if the entity has the power to obtain the future economic benefits flowing from the underlying resource and to restrict the access of others to those benefits.

The future economic benefits flowing from an intangible include revenue from the sale of products or services, cost savings, or other benefits resulting from the use of the asset by the entity.

The spending on intangible assets in the Company is divided into three stages:

- 1. spending related to the innovative and planned search for solutions, undertaken with the intention of acquiring and absorbing new scientific and technical knowledge; such spending in treated as research costs and are recognized in the profit or loss of the period. This stage may be initiated both by the Business Development Department, which sources information about new solutions from the market, as well as by the Technological Laboratories, which acquire information from the world of science. Each initiative is discussed at an interdisciplinary meeting where a request is put together for the Management Board to approve commencement of research. The request is presented to the Management Board and following its approval a research project is launched. The status and results of the project are monitored quarterly on the basis of reports of Technological Laboratories and the Financial Department to the Management Board. At the request of the Technological Laboratories, the work on the project may be stopped at any time (subject to approval by the Management Board), if the current results of the research fall short of expectations. The Technological Laboratories also inform the Management Board about completion of the research project.
- 2. The expenses related to the use of research results in business activities that meet the definition of IAS 38, until receipt of the first revenue from the sale or rental of a fixed asset or other benefits resulting from the use of an asset by the Company, are reported under the heading "intangible assets in-process development expenditure". This stage is preceded by any analysis of the possibility of commercialization of the project (described below in more detail). As a result of the analysis, a business plan is created, which is the basis for the Management Board to decide on commencement of development work. The status and results of the project are monitored monthly by the Management Board on the basis of reports of Technological Laboratories and the Financial Department. In addition, at least once a year, the Company tests all previous assumptions regarding in-process development. Where there are any indications of impairment, the Company will assess the recoverable amount of the assets affected and will post relevant impairment allowances. In addition, the Management Board of the Company may decide to suspend the development work completely if any changes in internal/ external conditions pose a significant threat to the commercialization of the project. The Technological Laboratories also inform the Management Board about completion of the development project.

3. The expenses related to the use of research results in business activities that meet the definition of IAS 38, until receipt of the first revenue from the sale or rental of a fixed asset or other benefits resulting from the use of an asset by the Company, are transferred to "intangible assets – costs of completed development" and are amortized. The Business Development Department informs the Finance Department about the start of sales based on an asset generated as a result of development work; similarly, the Technical Laboratories inform the Finance Department about the start of using an asset generated as a result of development work. The stage of in-process development is completed and the Finance Department informs the Accounting Department about the need to reclassify the asset to "intangible assets – costs of completed development".

An intangible asset is recognized if, and only if:

- a) it is probable that the expected future economic benefits that are attributable to the asset will flow to the entity; and
- b) the cost of the asset can be measured reliably.

Before starting the second stage of work on intangible assets, the Company's Management Board assesses the probability of expected future economic benefits using reasonable and supportable assumptions that represent management's best estimate of the set of economic conditions that will exist over the useful life of the asset, both on the income and cost side, including by estimating availability of the means needed to complete, use and generate benefits from the asset.

The Company uses judgment to assess the degree of certainty attached to the flow of future economic benefits that are attributable to the use of the asset on the basis of the evidence available at the time of initial recognition, giving greater weight to external evidence.

All research completed in the financial year is analyzed on an ongoing basis in terms of commercialization potential. Moreover, the same analysis is performed quarterly on all completed research which has not been subject to development. If the Management Board's initial assessment is positive, the Board requests a detailed analysis to the performed. In its course, the interdisciplinary team analyzes and provides data on new markets, prices and commercial terms (the Business Development Department); the use of new technology in existing markets; the ability to use the asset by the Company itself; the consumption of materials and raw materials, as well as technical capability to complete the intangible asset, both in terms of the necessary equipment and in terms of qualified staff (the Technological Laboratories), transaction security and legal conditions (the Legal Department). The Finance Department uses all the above considerations to draw up a business plan on their basis, taking in account the demand for cash and calculates the return on investment. After determining the possibilities of financing the project, the Finance Department presents the business plan results to the Management Board and to dedicated specialists from the above departments.

If the result of the assessment is positive, i.e. there are indications the intangible assets will help the Company obtain future economic benefits that can be assigned to the given assets component, while meeting the remaining conditions indicated below, the Management Board decides to start development. Project participants and people involved in the flow of documents are informed about new accounting objects being set up which are dedicated to the new project to ensure unique identification the project-related expenses.

An intangible asset arising from development (or from the development phase of an internal project) shall be recognized if, and only if, the Company can demonstrate all of the following:

- a) the technical feasibility of completing the intangible asset so that it will be available for use or sale;
- b) its intention to complete the intangible asset and use or sell it;
- c) its ability to use or sell the intangible asset;

- d) how the intangible asset will generate probable future economic benefits. Among other things, the entity can demonstrate the existence of a market for the output of the intangible asset or the intangible asset itself or, if it is to be used internally, the usefulness of the intangible asset;
- e) the availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset;
- f) its ability to measure reliably the expenditure attributable to the intangible asset during its development.

Where there is no certainty as to fulfillment of the above conditions, development costs are recognized in the statement of comprehensive income in the period in which they were incurred (under costs of ordinary activities).

The in-process development expenditure is an item of intangible fixed assets that is not yet available for use. According to paragraph 97 of IAS 38, development expenditure is not amortized as amortization begins when the asset is available for use, i.e. when it is in the location and condition necessary for it to be capable of operating in the manner intended by management.

Intangible assets are amortized on a straight-line basis over the anticipated period of their economic life.

Amortization of intangible assets is recognized in the income statement under the "Amortization" heading.

Intangible assets used by the Company with their useful lives:

Licenses for computer programs Intellectual property rights (know-how) 2 to 5 years

5 years

The Company has no intangible assets with an indefinite useful life.

#### 3.8.2. TANGIBLE ASSETS

Tangible assets are measured at purchase cost increased by all costs directly related to the purchase and adaptation of the asset for use or at generation cost less any depreciation and impairment allowances.

Costs incurred the after the tangible assets had been put in use, such as repair and maintenance costs and running costs are reflected in profit or loss of the reporting period in which they were incurred. However, if it is possible to demonstrate that the expenditure caused an increase in the expected future economic benefits from ownership of the asset above the originally expected benefits, then the expenditure increases the initial value of such asset (improvement).

At the time of liquidation or sale of tangible assets, any ensuing gains or losses are recognized in the statement of financial position as a difference between net proceeds from disposal (if any) and the carrying amount of this item.

In the case of tangible assets financed with grants, the amount corresponding to the initial value of such assets in the part financed with the grant is recognized in deferred income and settled over time as a subsidy together with depreciation of such assets.

Tangible assets are depreciated on a straight-line basis over the anticipated period of their economic life, which is as follows:

Technical equipment and machines:

4 to 15 years

Vehicles:

3 to 10 years

Other fixed assets:

2 to 4 years

Estimates regarding the economic useful life and the depreciation method are reviewed at the end of each financial year to verify if the depreciation methods and period correspond to the anticipated time distribution of the economic benefits conveyed by the tangible asset.

#### 3.8.3. FIXED ASSETS UNDER CONSTRUCTION

Assets under construction are measured at the overall cost directly related to their acquisition or generation, including financial costs (except exchange differences which do not represent an adjustment to interest paid), less impairment losses. Fixed assets under construction are not depreciated until they are completed and put in use.

#### 3.8.4. FINANCIAL INSTRUMENTS

The Company has classified financial assets into the following valuation categories:

- · measured at amortized cost,
- · measured at fair value through other comprehensive income,
- · measured at fair value through profit or loss.

The Company allocates financial assets to the appropriate category depending on the business model adopted for managing financial assets and considering the characteristics of contractual cash flows for a particular financial asset.

Financial assets measured at amortized cost are debt instruments held to collect contractual cash flows which include only payments of principal and interest.

To this category the Company classifies trade receivables, loans granted, other financial receivables and cash and cash equivalents.

Financial assets are measured at amortized cost using the effective interest rate. After initial recognition, trade receivables are measured at amortized cost using the effective interest rate method, including impairment allowances. Any trade receivables maturing within less than 12 months from the date of origination (i.e. without a financing element) and not transferred to factoring, are not discounted and are measured at nominal value.

Financial assets measured at fair value through other comprehensive income are:

- debt instruments whose flows contain only payments of principal and interest, and which are held to collect contractual flows and for sale;
- investments in equity instruments.

Changes in the carrying amount are measured through other comprehensive income, except for impairment losses (gains), interest income and foreign exchange differences and dividends, which are reflected in profit or loss. Assets measured at fair value through other comprehensive income include shares in other entities at the time of initial recognition.

Financial assets measured at fair value through profit or loss are financial instruments which do not meet the criteria for measurement at amortized cost or fair value through other comprehensive income. In the category of assets measured at fair value through profit or loss the Company classifies derivatives, factored trade receivables where the terms of the factoring agreement result in the respective amounts to be no longer treated as receivables, as well as loans which have not passed the SPPI test and dividends.

IFRS 9 did not change the classification of financial liabilities.

The table below presents changes in the classification and measurement of financial assets as at the date of the first adoption of IFRS 9.

CLASSES OF FINANCIAL INSTRUMENTS	Classification by IAS 39	Classification by IFRS 9		
FINANCIAL ASSETS				
Loans granted	Loans and receivables	Measured at amortized cost		
Trade and other receivables	Loans and receivables	Measured at amortized cost		
Cash and cash equivalents	Loans and receivables	Measured at amortized cost		

#### 3.8.4.1. IMPAIRMENT OF FINANCIAL ASSETS

Interest carried at amortized cost

IFRS 9 has introduced a change in the approach to estimating the impairment of financial assets with a shift from the incurred loss model to the expected loss model. At each balance sheet date, the Company assesses the expected credit losses whether or not there are any indications of impairment.

The Company uses the following models of making impairment allowances for individual items of financial assets:

#### 3.8.4.2. LOANS GRANTED AND RECEIVABLES FROM RELATED PARTIES

The Company performs an individual analysis of all exposures, assigning them to one of three stages:

Stage 1 – where credit risk has not increased significantly since initial recognition and where 12-month expected credit loss (ECL) is recognized.

Stage 2 – where credit risk has increased significantly since initial recognition and where lifetime ECL is recognized.

Exposures classified to stage 1 have impairment allowances determined based on an individually set rating, repayment profile and assessment of recovery from collateral.

For exposures classified to stage 2, the amount of impairment allowance is calculated as the difference between the carrying amount of the asset and the present value of the estimated future cash flows (excluding future losses on account of uncollected receivables), discounted using the effective interest rate.

Impairment allowances are reversed when the present value of the estimated future cash flows is higher than the net assets employed, and a positive balance of payments with the entity concerned is expected to be achieved within the next 12 months.

#### 3.8.4.3. TRADE RECEIVABLES

The Company performs a collective analysis of exposures (except for those which are subject to individual analysis as non-performing receivables) and uses a simplified matrix of allowances for individual age ranges based on expected credit losses over the entire life of the receivables (based on default ratios determined using historical data). The expected credit loss is calculated when the receivable is recognized in the statement of financial position and is updated on each subsequent day ending the reporting period, depending on the number of days in arrears.

## 3.8.4.4. CASH

The Company estimates allowances based on the likelihood of default determined using external bank ratings.

At present, the Company does not use hedge accounting.

Impact of the implementation of IFRS 9 on the Company's financial statements as at 31 December 2018:

The most important item of financial assets in the Company's financial statements is cash, held on accounts with banks from Santander Group. Banks which are Members of Santander Group have a stable short-term and long-term rating, so the Company decided not to post any allowances.

#### 3.8.5. LEASES

A lease is classified as a finance lease if it transfers substantially all the risks and rewards incidental to ownership onto the lessee. All other leases are treated as operating leases. Whether a lease is a finance lease or an operating lease depends on the substance of the transaction rather than the form of the contract.

The Company is not a party to any contracts under which it would be a lessor.

The Company is a party to contracts which transfer substantially all risks and rewards incidental to ownership of the underlying assets. A lease is recognized as a tangible asset at the lower of its fair value and the present value of minimum lease payments determined at the lease commencement date. Lease payments are apportioned between the finance charge and the reduction of the outstanding liability so as to produce a constant periodic rate of interest on the remaining balance of the liability. Financial expenses are recognized directly in the statement of comprehensive income.

Tangible assets used on the basis of lease contracts are depreciated over the anticipated period of their useful life.

The operating lease fees and the subsequent lease payments are expensed in the statement of comprehensive income on a straight-line basis throughout the lease term.

With regard to leases, the Company uses the principles set out in IAS 17 "Leases".

The Company currently has one lease agreement in place, which is presented as a financial lease and, in the context of the new provisions of IFRS 16 Leases, its presentation will not change.

In addition, the Company has not identified any contracts whose presentation should change as of 1 January 2019.

#### 3.8.6. FOREIGN CURRENCY TRANSACTIONS

The items included in the financial statements are presented in the Polish zloty, which is the functional currency of the Company.`

Transactions expressed in foreign currencies are translated at initial recognition into the functional currency as follows:

- at the exchange rate actually used, i.e. at the buy or sell rate applied by the bank at which the transaction takes place, in the case of currency sale or purchase transactions and payment of receivables or liabilities, or at the rate arising from contracts signed with the entity's bank or the rate agreed through negotiations;
- at the average exchange rate set for the particular currency by the National Bank of Poland as at the transaction date for other transactions. The exchange rate applicable at the transaction date is the average exchange rate of the National Banking of Poland announced on the last business day before the transaction.

At the end of each reporting period:

- any cash items expressed in foreign currency are converted using the closing rate applicable on that day, i.e. the average exchange rate set for the particular currency by the National Bank of Poland;
- any non-cash items measured at historical cost in a foreign currency are converted using the exchange rate (i.e. the average exchange rate set for the particular currency by the National Bank of Poland) applicable on the transaction date, and

- any non-cash items measured at fair value in a foreign currency are converted using the exchange rate (i.e. the average exchange rate set for the particular currency by the National Bank of Poland) applicable on the date of determination of the fair value.

Foreign exchange gains and losses arising from:

- settlement of transactions in a foreign currency;
- balance sheet valuation of cash assets and liabilities other than derivative instruments expressed in foreign currencies are recognized in profit or loss.

Other than derivatives expressed in foreign currencies are recognized in profit or loss.

#### 3.8.7. PREPAYMENTS AND ACCRUALS

The entity recognizes prepayments and accruals to comply with the accrual principle and the matching principle. This applies to the revenues and expenses which relate to future periods and meet the recognition criteria as items of assets or liabilities, in accordance with the conceptual framework of IFRSs.

Prepayments are measured at cost at the time of initial measurement, while on the balance sheet date the cost is adjusted by the portion of the written off cost or income attributable to the previous period.

The Company recognizes unearned revenues if they relate to future reporting periods.

Unearned revenues are measured at nominal value.

#### 3.8.8. EQUITY

The Company's equity is divided into:

- Registered (share) capital recognized at the value stated in the Company's Articles of Association and entered in the National Court Register (KRS);
- Supplementary capital;
- Retained profit (loss carried forward).

#### 3.8.9. PROVISIONS

Provisions are recognized when the entity has a present legal or constructive obligation towards third parties as a result of past events and when it is certain or highly likely than an outflow of resources (tantamount to economic losses) will be required to settle the obligation, and when the amount of the obligation can be reliably estimated.

## 3.8.10. BANK LOANS AND OTHER LOANS RECEIVED

At initial recognition, bank loans are recognized at cost, which is the value of cash received and which includes the cost of obtaining the loan. Then all bank and other loans are measured at adjusted purchase price (amortized cost), using the effective interest rate.

## 3.8.11. BORROWING COSTS

Borrowing costs are recognized in profit or loss in the period to which they relate.

Borrowing costs that may be directly attributed to the acquisition, construction or production of a qualifying asset affect its initial value as a part of the cost of that asset. The costs are capitalized when it is probable that they will result in future economic benefits to the entity and the costs can be measured reliably.

Borrowing costs which were incurred without any specific purpose and used for the purpose of financing the acquisition or production of a qualifying asset affect the initial value of this asset in the amount determined by applying the capitalization rate to the expenditures on that asset. The capitalization rate is the weighted average of the borrowing costs applicable to the borrowings of the entity that are outstanding during the period, other than borrowings made specifically for the purpose of obtaining a qualifying asset.

Exchange differences on borrowings drawn in a foreign currency (both specific and general) affect the initial value of the qualifying asset to the extent in which it represents an adjustment of interest costs. The value of exchange rate differences adjusting the interest costs is the difference between the interest costs on similar borrowings that the Company would incur in its functional currency and the cost incurred for the foreign currency borrowings.

#### 3.8.12. CURRENT AND DEFERRED TAX

Income tax recognized in profit or loss includes current and deferred tax. Current tax is calculated in accordance with the applicable tax law.

Deferred tax is determined using tax rates (and laws) that are expected to apply to the period when the asset is realized or the liability is settled based on tax rates (and tax laws) that have been enacted or substantively enacted at the end of the reporting period.

A deferred tax liability is recognized for all taxable temporary differences between the tax bases of assets and liabilities and their carrying amounts in the financial statements. A deferred tax liability is recognized in the full amount. The liability is not discounted.

A deferred tax asset is recognized for all deductible temporary differences between the tax bases of assets and liabilities and their carrying amounts in the financial statements. A deferred tax asset is recognized to the extent that it is probable that future taxable profits will be available against which the temporary difference or tax loss can be utilized.

Deferred tax assets and liabilities are recognized regardless of when they are to be utilized.

Deferred tax assets and deferred tax liabilities are not recognized if they arise from the initial recognition of an asset or liability in a transaction that:

- is not a business combination;
- at the time of the transaction, affects neither the pre-tax profit nor taxable profit. No deferred tax assets and deferred tax liabilities are recognized for temporary differences resulting from the initial recognition of goodwill.

Deferred tax is recognized in profit or loss for a given period, unless the deferred tax:

- arises from transactions or events which are directly recognized in other comprehensive income in which case the deferred tax is also recognized in other comprehensive income; or
- arises from a business combination in which case the deferred tax affects goodwill or a gain on a bargain purchase.

Deferred tax assets and deferred tax liabilities are offset if the Group entities have a legally enforceable right to set off current tax assets and current tax liabilities, and if the deferred tax assets and deferred tax liabilities relate to income taxes levied by the same taxation authority on the same taxpayer.

#### 3.8.13. REVENUE RECOGNITION

The Company applies IFRS 15 "Revenue from Contracts with Customers" as of 1 January 2018, using the modified retrospective approach, without adjusting the comparative data.

The Company applies the principles of IFRS 15 taking into account the 5-step revenue recognition model. The Company recognizes revenue when it satisfies a performance obligation by transferring a promised good or service (i.e. an asset) to a customer. An asset is transferred when (or as) the customer obtains control of that asset. Revenue is recognized as an amount corresponding to the transaction price allocated to that performance obligation.

In order to determine the transaction price, the Company takes into account the terms of the contract and the customary business practices. Transaction price is the amount of consideration to which the Company expects to be entitled in exchange for transferring promised goods or services to a customer, excluding amounts collected on behalf of third parties (for example certain sales taxes). The consideration promised in a contract with a customer may include fixed amounts, variable amounts, or both.

If the consideration promised in a contract includes a variable amount, the Company estimates the amount of consideration to which it will be entitled in exchange for transferring the promised goods or services to a customer.

Impact of the implementation of IFRS 15 on the Company's financial statements as at 31 December 2018:

The Company did not have any signed commercial contracts that could be the basis for disclosures in accordance with IFRS 15. Implementation of IFRS 15 Revenue from Contracts with Customers will not affect the value of the Company's equity as at 31 December 2018 or at the date of publication of the interim financial statements.

#### 3.8.13.1. REVENUES FROM THE SALE OF SERVICES (PRODUCTS)

When the outcome of a transaction involving the rendering of services can be estimated reliably, revenue associated with the transaction is recognized by reference to the stage of completion of the transaction at the balance sheet date. The outcome of a transaction can be estimated reliably when all the following conditions are satisfied:

- the amount of the revenue can be measured reliably;
- it is probable that the economic benefits associated with the transaction will flow to the enterprise;
- the stage of completion of the transaction at the balance sheet date can be measured reliably;
- the costs incurred for the transaction and the costs to complete the transaction can be measured reliably.

When the outcome of the transaction involving the rendering of services cannot be estimated reliably, revenue is recognized only to the extent of the expenses incurred that are recoverable.

#### 3.8.13.2. REVENUE FROM THE SALE OF GOODS AND MATERIALS

The Company recognized revenue from the sale of goods and materials when the following conditions are satisfied:

- - the entity has transferred to the buyer the significant risks and rewards of ownership of the goods;
- the entity retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold;
- the amount of the revenue can be measured reliably;
- it is probable that the economic benefits associated with the transaction will flow to the enterprise;
- the costs incurred or to be incurred in respect of the transaction can be measured reliably.

Revenue is recognized at the fair value of the consideration received or receivable.

#### 3.8.13.3. INTEREST

Interest income is recognized pro-rata to the passage of time, using an effective interest rate. When a receivable is impaired, the Company reduces the carrying amount to its recoverable amount, being the estimated future cash flow discounted at original effective interest rate of the instrument, and gradually unwinds the discount in correspondence with interest income. Interest income on loans which have become impaired is recognized at the original effective interest rate.

#### 3.8.13.4. GRANTS

Non-cash grants are recognized in the books at fair value.

Cash government grants are presented in the statement of financial position as deferred income.

Grants related to income are presented under "Revenue from grants".

A government grant is not recognized until there is reasonable assurance that the entity will comply with the conditions attaching to it, and that the grant will be received.

Government grants are recognized in profit or loss on a systematic basis over the periods in which the entity recognizes as expenses the related costs for which the grants are intended to compensate. They are not credited directly to equity.

A government grant that becomes receivable as compensation for expenses or losses already incurred or for the purpose of giving immediate financial support to the entity with no future related costs is recognized as income of the period in which it becomes receivable as the above fact has been disclosed.

Grants related to income are presented as revenue, separately from the related costs which the grants are intended to compensate. The grants are recognized as income regardless of whether they were received in the form of cash or as a decrease of liabilities.

Inflows and expenses related to received grants are presented in the statement of cash flows (under cash flows from operating activities).

The benefit of a government loan at a below-market rate of interest is treated as a government grant, which is recognized and measured in accordance with IFRS 9 "Financial Instruments", i.e. at the amount of the difference between the initial carrying amount of the loan determined in accordance with IFRS 9 and the inflows received. The grant is accounted for in accordance with IAS 20 "Accounting for government grants and disclosure of government assistance".

In the presented reporting periods, the Company received no grants to assets.

#### 3.8.13.5. CONTINGENT ASSETS AND LIABILITIES

A contingent liability is defined as:

a) a possible obligation that arises from past events and of which the existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the entity; or

b) a present obligation that arises from past events but is not recognized in financial statements because:

- it is not probable that an outflow of resources embodying economic benefits will be required to settle the obligation; or
- the amount of the obligation cannot be measured with sufficient reliability.

Contingent assets are possible assets that arise from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the entity.

#### 3.8.14. INCENTIVE SCHEME

On 29 November 2017, the Company's Extraordinary General Meeting adopted a resolution introducing an incentive scheme at the Company. The scheme provides for possible allocation of the Company's shares to the Management Board Members and personnel of the Company.

The purpose of the incentive scheme is to:

- create mechanisms that will motivate the Management Board and personnel of the Company to undertake
  activities that will lead to a rapid increase in the Company's revenues and profits and ensure the
  Company's long-term development, consequently increasing the value of the Company's shares;
- ensure a stable composition of the Management Board and personnel of the Company;
- maintain a high level of motivation of the Management Board and personnel of the Company.

The incentive program is based on 140,020 (one hundred and forty thousand twenty) series L shares of the Company, which were acquired by TPL Sp. z o.o., a limited liability company which is also the scheme's administrator. The scheme might also include shares of a new issue, subject to the decision of the Company's Management Board. Any shares that will not be taken up as part of the scheme will be cancelled by the Company after they have been acquired from TPL.

The scheme defines the share option allocation criteria, but it does not specify any financial or non-financial objectives for vesting as these will be defined by the Company's bodies during the term of the scheme. The incentive scheme is divided into three periods: the financial year ended 31 December 2018; the financial year ended on 31 December 2019 and the financial year ended on 31 December 2020. Allocation of share options to the eligible individuals is subject to the decision of the Supervisory Board and the Management Board after the end of the individual periods.

IFRS 2 requires that the Company should recognize the related costs and equity increase for such transactions when the employee benefits are received. On the date when the individual tranches under the scheme vest in the eligible persons, the Company will estimate the remuneration costs based on the fair value of the awarded options. The cost determined in this way will be recognized in the statement of comprehensive income for a given period in correspondence with the equity position presented in the statement of financial position throughout the vesting period.

The incentive scheme involving the award of share options will be recognized in the financial statements in accordance with IFRS 2.

#### 3.8.15. MANAGEMENT BOARD'S ESTIMATES

The preparation of financial statements requires the Management Board of the entity to make estimates and assumptions that affect the amounts reported in these financial statements and notes thereto. Actual results may be different from estimates. These estimates concern, inter alia, provisions and impairment allowances, prepayments and accruals and adopted depreciation/ amortization rates.

## 3.8.15.1. ACCRUALS FOR UNUSED ANNUAL LEAVES

Accruals for unused holiday leaves are determined on the basis of the number of unused leave days as at a particular date and the employee's average salary as at that date, increased by the national insurance contributions payable by the employer.

## 3.8.15.2. USEFUL LIVES OF TANGIBLE ASSETS

Each year, the Company's Management Board verifies the residual value, depreciation method and useful lives of the fixed assets which are subject to depreciation. As at 31 December 2017, the Management Board is of the opinion that the useful lives of assets applied by the Company for purposes of depreciation reflect the expected period of future economic benefits from these assets.

#### 3.8.15.3. DEFERRED TAX ASSETS AND LIABILITIES

Deferred tax assets and liabilities are measured at the tax rates which according to the available projections will be apply at the time when the asset is realized or the liability is settled based on tax laws that were in force or were substantively in force at the end of the reporting period.

#### 3.8.15.4. IMPAIRMENT TEST FOR TANGIBLE AND INTANGIBLE ASSETS

In accordance with the requirements of IAS 36, the Company monitors its assets in terms of impairment on an ongoing basis. At the time of a decision to start a new development project, the Company assesses the probability of expected future economic benefits using reasonable and supportable assumptions that represent management's best estimate of the set of economic conditions that will exist over the useful life of the asset, both on the income and cost side, including by estimating availability of the means needed to complete, use and generate benefits from the asset. Where there is no certainty as to the possibility of obtaining future economic benefits, technical capability or an intention to complete the development or availability of funds to complete the development or a possibility of a reliable estimate of the expenditure incurred, then development costs are recognized in the statement of comprehensive income in the period in which they were incurred (under costs of ordinary activities). At the end of each reporting period, the Company tests all previous assumptions regarding in-process development. Where there are any indications of impairment, the Company will assess the recoverable amount of the assets affected and will post relevant impairment allowances. Impairment tests are carried out to ensure that assets are carried at a value not exceeding their recoverable amount. The recoverable amount is the higher of:

- fair value, less costs to sell, if the fair value can be determined;
- value in use determined on the basis of the present value (i.e. after discounting) of the future cash flows related to the assets to be tested.

The indicators of impairment of assets at the Company are as follows:

- an asset's market value has declined significantly more than would be expected as a result of the passage of time or normal use;
- significant changes of technological, market, economic or legal nature, with an adverse effect on the entity have taken place or are expected to take place;
- evidence is available of obsolescence or physical damage of an asset;
- significant changes to the use of an asset, with an adverse effect on the entity, have taken place or are expected to take place;
- the economic performance of an asset is or will be worse than expected.

At each balance sheet date, the Company assesses whether there are any indications that any of its may be impaired. If this is the case, the Company estimates the recoverable amount of the asset.

Whether or not there are any indications of impairment, each year the Company performs annual impairment tests for its intangible assets with an indefinite useful life or an intangible asset which is not yet available for use, by comparing its carrying amount with its recoverable amount. This test may be carried out at any time during the year, provided that each year it takes place at the same date. Different intangible assets may be tested for impairment at various dates. If an intangible asset was initially recognized during the current year, the asset is tested for impairment before the year-end.

At the end of the reporting periods presented, in the opinion of the Company's Management Board there were no indications of impairment of tangible or intangible assets. As at 30 September 2018, in accordance with the International Accounting Standard 36 "Impairment of Assets", the Company performed an impairment test for the intangible assets which are not yet available for use. The test results showed that the recoverable amount of intangible assets exceeds their carrying amount, so there is no need to post any impairment allowances for those assets.

# Management Board's Report on the Group's Activities for 2018

2018 ANNUAL RETOR

# 4. MANAGEMENT BOARD'S REPORT ON THE GROUP'S ACTIVITIES FOR 2018

## 4.1. KEY INFORMATION ABOUT THE COMPANY

#### 4.1.1. INFORMATION ON XTPL

Business name: XTPL Spółka Akcyjna

Registered Office: Wrocław

Address: Stabłowicka 147, 54-066 Wrocław

KRS: 0000619674 NIP: 9512394886 REGON: 361898062

Phone number: +48 71 707 22 04

Website: www.xtpl.com Email: investors@xtpl.com

The Company has the status of a public Company. Since 20 February 2019, its shares have been listed on the regulated (parallel) market operated by the Warsaw Stock Exchange.

As regards financial reporting, the Company uses IASs/ IFRSs. The Company's financial year is from 1 January to 31 December.

## 4.1.2. BUSINESS PROFILE

XTPL intends to offer global manufacturers cost-effective and scalable production of advanced, next-generation electronics, providing them with additive, ultra-precise nanoprinting technology. The Company's platform-based technology will facilitate the production of (inter alia): modern displays, smart glass with advanced functionalities, innovative security printing solutions or photovoltaic panels with increased efficiency. The Issuer's solutions are designed to provide business partners with technological and competitive edge so that they can manufacture state-of-the-art hi-tech equipment more effectively and outperform competition. With the unique XTPL technology, in the future, we will print displays, solar cells, biosensors and other advanced features just as cheaply and fast as we print newspapers or books today.



Fig. 1 Application fields chosen for potential implementation of XTPL technology within the broad market of printed electronics.

The Company intends to offer two product lines based on the developed technology: unique printing heads – each time designed and dedicated to specific applications – and their dedicated nanoinks. The main competitive advantage and the breakthrough nature of XTPL's additive technology is about unprecedented printing precision, which is a serious challenge for existing methods.

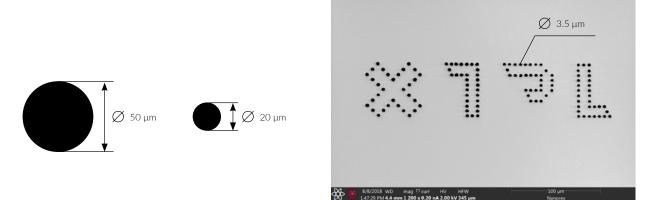


Fig. 2 Example illustrating the outstanding precision of the XTPL solution. Mircodots, used, for example, in the semiconductors and sensors sectors, now usually have a diameter of 50  $\mu$ m (micrometers), but not less than 20  $\mu$ m. By now, XTPL has managed to achieve structures of a mere 1  $\mu$ m, while working on further reduction of this parameter.

The Company has chosen the first application fields for commercialization at the current stage of development, and focuses its efforts around these fields:

## a) SMART GLASS SECTOR

The XTPL solution for the production of smart glass, which can change transparency, depending on the degree of external illumination. The technology developed by the Company allows ultra-thin, invisible structures with excellent conductivity parameters to be precisely printed on glass. In this way, it will be possible to reduce the switching time from tens of minutes to a few minutes (time to change glass transparency from light to dark and vice versa). This will not only allow glass manufacturers to achieve a great improvement in the parameters of their products, but will make it possible to create a proposition for the industries where it was not possible thus far (e.g. automotive industry) due to the value of this parameter.



Fig. 3 Change in voltage converts smart glass from light to dark and vice versa. To enable the flow of current, smart glass has embedded conductive structures. However, they need to be extremely fine to be invisible to the human eye, while maintaining excellent conductive parameters. XTPL technology allows conductive, transparent lines  $(1-5 \mu m)$  to be printed on glass, thus facilitating progress in this sector.

Market readiness of XTPL: advanced proof-of-concept (PoC)

Market partner: identified (United States)

b) OPEN DEFECTS REPAIR SECTOR – technology for repairing broken metallic connections in thin-film electronic circuits

XTPL technology for the display segment – repair of local defects of conductive structures (broken metallic connections), one of the causes of "dead pixels". The technologies available in the market for repairing such defects (including in LCDs and OLEDs, but also PCBs, MCMs, integrated circuits and solar cells) have serious limitations, are complicated and costly. The XTPL nanoprinting technology will enable repairs already at the production stage, reducing costs, ensuring precision and speed that none of the existing methods can offer.



Fig. 4 Removing local defects in conductive structure is needed in most cases as conductive electrodes are used in semi-finished products whose production cost is a significant part (even 50%–70%) of the cost of the final product. The XTPL solution ensures precise, fast and effective open defect repair, significantly increasing the efficiency of advanced production lines.

Market readiness: all industrial requirements have been met

Market partner: identified (China)

#### 4.1.3. TEAM

Currently XTPL team consists of more than 40 people in Poland and the United States. The team includes scientists and technologists with interdisciplinary expertise in chemistry, physics, electronics, mechanics and numerical simulations, as well as specialists in strategic management and commercialization, product development, implementation of innovations, marketing & communication and capital market. 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.



Fig. 5 Members of the XTPL R&D team during technological tests.

## MANAGEMENT BOARD



#### **FILIP GRANEK**

Management Board PRESIDENT OF XTPL S.A., CEO

Co-creator of the technology and founder of XTPL. He is an expert in nanotechnology, printed electronics, solar cells and modern technological processes for the production of semiconductor elements. For nearly 10 years, he worked for most prestigious international research institutions and hi-tech companies, including: Fraunhofer ISE (Germany), ECN (Netherlands), ANU (Australia), Kingstone Semiconductor Company Ltd. (China). He led research work in close cooperation with the largest photovoltaic industry representatives from Europe, Asia and the United States. He has won many awards and distinctions, including the Burgen Scholarship (Academia Europaea) and a scholarship from the Foundation for Polish Science; he is a member of the prestigious Young Academy of Europe; obtained a scholarship from Ministry of Science and Higher Education for outstanding young scientists and from DAAD, Germany. He received the prestigious LIDER research grant financed by the National Center for Research and Development, and was awarded in the ranking of outstanding innovators of new Europe: "New Europe 100 Challengers". Winner of the 16th edition of the 2018 EY Entrepreneur of the Year competition. He was awarded for his work on the disruptive technology than has a serious chance to change the world for the better.

#### MACIEJ ADAMCZYK

Management Board Member OF XTPL S.A., COO

A manager with more than 19 years of experience in business development, mergers and acquisitions, finance and B2B sales. He obtained an MA degree from the Academy of Economics in Wroclaw and the Warsaw School of Economics (SGH). His previous roles include Head of Development at Impel S.A. (2014–2016), CEO of Impel Monitoring Sp. z o.o. sp. k., an investments director with Black Lion NFI S.A. (2010–2011), Management Board Member with FAM S.A. (2005–2009) and CFO with Mostostal Wrocław S.A. (2004 - 2009).



The Issuer's Management Board is supported by experienced managers from the United States. They are Members of the Issuer's US-based daughter company – XTPL Inc.



#### **HAROLD HUGHES**

He has been developing high-tech projects in Silicon Valley for the past 40 years. In 1974–2000, he held key roles (including CFO) with Intel, where he co-founded Intel Capital. Then he developed such technology companies as Pandesic and Rambus (as CEO in 2005–12). At present, he is also a member of Supervisory Boards of several technology companies, including Quantenna Communications, View Inc., and advises Kateeva, a company which commercializes breakthrough printing and ink solutions for the production of new generation OLED screens. Harold Hughes obtained MBA degree from the University of Michigan.

## AMIR NAYYERHABIBI

He has been developing high-tech projects in Silicon Valley, especially in the area of IT and semiconductors, for more than 30 years. Currently, he is a partner with Benhamou Global Ventures from Silicon Valley, a fund investing in dozens of companies from the digital economy sector.

In the years 1982-2000, he held managerial and executive functions (including COO) with Intel Corp., MIPS Computer Systems (microprocessors) and Cisco. During his career, Amir Nayyerhabibi established and developed such technology companies as StratumOne Communication, AuroraNetics and Cortina Systems. He managed the latter firm for more than 13 years, bringing it to the position of one of the global leaders in the fiber optic solutions sector. He also currently chairs the Supervisory Board of California-based NDG Systems, specialising in hardware production for data storage. Amir Nayyerhabibi obtained a degree in electronic engineering from the University of Illinois.



#### 4.1.4. HISTORY

XTPL was founded in 2015 as a limited liability Company. The founders sought to commercialize the ground-breaking technology of manufacturing ultra-thin conductive metallic lines.

During the initial period of the Company's activity, a laboratory with a unique infrastructure was set up. There, within five months of intensive research and development, the Company's team achieved the ability to control the process of printing ultra-thin conductive lines which were several dozen times narrower than those available in the market at that time. This technological breakthrough allowed the Company to submit its first patent application in March 2016 for the XTPL printing method and the nanoink formulation.

On 25 April 2016, the General Meeting adopted a resolution to transform the firm into a joint-stock Company (S.A.). The transformation was recorded by the registry court on 1 June 2016.

As its scale of operations expanded, on 1 September 2016 the Company transferred its research infrastructure to modern laboratories in the Wroclaw Research Centre EIT+ (now PORT). The Company's technical resources and staff numbers have increased substantially.



Fig. 6 Filip Granek, CEO XTPL S.A. receives the Technical Development Manufacturing Award, Berlin 2017

On 21 February 2017, the Extraordinary General Meeting of XTPL adopted resolution no. 02/02.2017 to split the Company's shares without decreasing its share capital, by converting the nominal value of a share to PLN 0.10.

In the first quarter of 2017, another technological barrier was broken. The Issuer's R&D team obtained the width of printed lines below 100 nanometers. Next, in the second quarter of 2017, the Company completed the prototype of the unique XTPL printer, which earned it the Technical Development Manufacturing Award at the IDTechEX Show in Berlin.

In July 2017, XTPL carried out a public issue of shares as part of which 155,000 series M ordinary bearer shares with a nominal value of PLN 0.10 each were acquired. The shares were allocated to 16 (natural and legal) persons in the Institutional Investors Tranche and to 349 (natural and legal) persons in the Retail Tranche. As part of the issue, the Company raised PLN 10,230,000 gross. One of the investors taking up the shares was Acatis, a German investment fund acting through Universal-Investment GmbH.

On 14 September 2017, the Company's shares debuted on the NewConnect market in the Alternative Trading System. After the debut, another large investment fund from Germany, Heidelberger Beteiligungsholding AG, announced that it had exceeded the threshold of 5% of the total number of votes at the Company's General Meeting.



Fig. 7 Ceremony marking XTPL's debut on NewConnect, Warsaw 14 September 2017

In subsequent periods, the Issuer consistently developed its unique technology. In the fourth quarter of 2017, the Company started testing new (except silver) nanoparticles – quantum dots and semiconductors and new substrates – silicon wafers.

In the first quarter of 2018, business development activities accelerated strongly as a proof-of-concept (PoC) project was elaborated for the security printing sector and for quantum dots printing. In addition, an advanced PoC project was put together for the open defect repair and semiconductors sector.

On 16 April 2018, the Company's Extraordinary General Meeting appointed Mr Wiesław Rozłucki, the former CEO and co-founder of the Warsaw Stock Exchange, as the Chairman of the XTPL Supervisory Board. Now he actively supports XTPL in its activities related to capital markets and broadly understood corporate governance.

On 23 May 2018, XTPL was awarded for one of the most promising technologies among participants of the I-Zone (the innovation zone) as part of the Display Week in Los Angeles, one of the world's most important conferences of display manufacturers. Other firms awarded during the event were such giants as Apple, LG Display or Sharp.

In subsequent periods, the Issuer registered further patent applications for the XTPL printing method. One of the registered applications was related to an increased current and mechanical capability of conductive lines, while the other registered application focused on the printing substrate, specifically on the dedicated adaptation of this substrate to facilitate the printing of long lines with arbitrary shapes.



Fig. 8 Filip Granek, CEO of XTPL S.A. receives an award for one of the most promising technologies presented in the Innovation Zone at the Display Week, an event for the international display industry, Los Angeles

In June 2018, XTPL set up an international Advisory Board, whose role is to support the Company in its global expansion, including in the United States and Asia. The first member of the Advisory Board was Harold Hughes, a former CFO of Intel and CEO of Rambus, a veteran of the semiconductor industry and adviser to many technology companies from Silicon Valley.

Next, the Advisory Board was joined by Amir Nayyerhabibi, who has been developing hi-tech projects in Silicon Valley, especially in the area of IT and semiconductors, for more than 30 years. Currently, he is a partner with Benhamou Global Ventures from Silicon Valley, a fund investing in dozens of companies from the digital economy sector.

In the third quarter of 2018, the Issuer carries on its technological development by implementing new printing substrates – smart glass and advanced optical surfaces, and by using new nanoparticles for printing: gold, carbon and copper-based.



Fig. 9 Harold Hughes with the XTPL team during the Advisory Board meeting, Wroclaw 2018

In August 2018, the German fund ACATIS decides to re-invest in the Company's shares. The EUR 1 million raised in this way will finance the Company's business development in the United States, especially in Silicon Valley.

In September 2018, Heidelberger Beteiligungsholding AG (daughter company of Deutsche Balaton AG Group) also decides to re-invest in XTPL. The fund took up the Company's shares in a private placement. The capital raised (EUR 1.05 million) will be used for further strategic strengthening of the process of commercialization of the Company's solutions in the United States and development of its patent cloud.



Fig. 10 Filip Granek wins the EY Entrepreneur of the Year award, Warsaw, 22 November 2018

In the fourth quarter of 2018, the first phase of an advanced PoC for a leading US manufacturer from the smart glass industry was completed. Achievement of the technical specification received means fulfillment of the pre-condition for arranging and conducting integration tests with the technology used by the potential client.

On 22 November, the CEO of XTPL Filip Granek wins the most prestigious award for an entrepreneur in Poland. He was awarded for his work on the disruptive technology that has a serious chance to change the world for the better.

On 21 December 2018, XTPL was announced the best investment in the capital market in Poland in 2018. The Company brought investors a net return of almost 110%.

#### 4.1.5. BRANCHES AND PLANTS

As at 31 December 2018, the Company did not have any branches or plants.

## 4.1.6. SHARE CAPITAL AND OWNERSHIP STRUCTURE

As at 31 December 2018 and as at the date of publication of the report, the Issuer's share capital (fully paid up) was PLN 178,362 and was divided into 1,783,620 bearer shares with a nominal value of PLN 0.10 each.

The shareholding structure as at 31 December 2018 was as follows (shareholders holding at least 5% of the total number of votes at the General Meeting):

	SHAREHOLDER	NUMBER OF SHARES HELD	% OF ALL SHARES	NUMBER OF VOTES	% OF ALL VOTES
1.	Filip Granek	303,000	16.99%	303,000	16.99%
2.	Sebastian Młodziński	300,000	16.82%	300,000	16.82%
3.	Leonarto Sp. z o.o. *	298,000	16.71%	298,000	16.71%
4.	Heidelberger Beteiligungsholding AG	192,371	10.79%	192,371	10.79%
5.	TPL Sp. z o.o. **	140,020	7.85%	140,020	7.85%
6.	ACATIS Investment Kapitalverwaltungsgesellschaft mbH on behalf of ACATIS Datini Valueflex Fonds	127,000	7.12%	127,000	7.12%
7.	Stefan Twardak	103,081	5.78%	103,081	5.78%
8.	Konrad Pankiewicz*	2,223	0.12%	2,223	0.12%
9.	Others	317,925	17.82%	317,925	17.82%
	TOTAL	1,783,620	100.00%	1,783,620	100.00%

<sup>\*</sup> Konrad Pankiewicz, Member of the Issuer's Supervisory Board, is the sole shareholder and CEO of Leonarto Sp. z o.o. Konrad Pankiewicz, together with a related entity, owns 300,223 shares of the Company, constituting 16.83% of its share capital

The shareholding structure as at the date of publication of the report is as follows (shareholders holding at least 5% of the total number of votes at the General Meeting):

REF.	SHAREHOLDER	NUMBER OF SHARES HELD	% OF ALL SHARES	NUMBER OF VOTES	% OF ALL VOTES
1.	Filip Granek	303,288	17.00%	303,288	17.00%
2.	Sebastian Młodziński	299,852	16.81%	299,852	16.81%
3.	Leonarto Sp. z o.o. *	298,015	16.71%	298,015	16.71%
4.	Heidelberger Beteiligungsholding AG	192,371	10.79%	192,371	10.79%
5.	TPL Sp. z o.o. **	140,020	7.85%	140,020	7.85%
6.	ACATIS Investment Kapitalverwaltungsgesellschaft mbH on behalf of ACATIS Datini Valueflex Fonds	127,000	7.12%	127,000	7.12%
7.	Stefan Twardak	103,081	5.78%	103,081	5.78%
8.	Konrad Pankiewicz*	2,573	0.14%	2,573	0.14%
9.	Others	317,420	17.80%	317,420	17.80%
	TOTAL	1,783,620	100.00%	1,783,620	100.00%

<sup>\*</sup> Konrad Pankiewicz, Member of the Issuer's Supervisory Board, is the sole shareholder and CEO of Leonarto Sp. z o.o. Konrad Pankiewicz, together with a related entity, owns 300,588 shares of the Company, constituting 16.85% of its share capital

<sup>\*\* \*\*</sup> TPL Sp. z o.o. holds series L shares issued for the purpose of an employee share program. The shareholders of TPL Sp. z o.o. are Filip Granek, the Issuer's CEO (34% of shares), Sebastian Młodziński, Member of the Issuer's Supervisory Board (33%) and Adriana Pankiewicz, wife of Konrad Pankiewicz, Member of the Issuer's Supervisory Board (33%).

<sup>\*\*</sup> TPL Sp. z o.o. holds series L shares issued for the purpose of an employee share program. The shareholders of TPL Sp. z o.o. are Filip Granek, the Issuer's CEO (34% of shares), Sebastian Młodziński, Member of the Issuer's Management Board (33%) and Adriana Pankiewicz, wife of Konrad Pankiewicz, Member of the Issuer's Supervisory Board (33%).

By 19 April 2020, the Management Board is to increase, on a one-off or phased basis, the Company's share capital within the authorized capital (§10 of the Articles of Association). To this end, it may decide to issue up to 750,000 shares with a total nominal value of up to PLN 75,000.

On 24 April 2019, the Company's Extraordinary General Meeting of Shareholders adopted a resolution to increase the Company's share capital by PLN 4,260.20 (four thousand two hundred and sixty zlotys and 20/100) to PLN 182,622.20 (one hundred and eighty two thousand six hundred and twenty two zlotys and 20/100) through the issue of 42,602 (forty two thousand six hundred and two) series P ordinary bearer shares with a nominal value of PLN 0.10 (ten groszy) each. As of the date of publication of the report, the change had not been registered by the registry court.

On 24 April 2019, the Company's Extraordinary General Meeting of Shareholders adopted a resolution to conditionally increase the Company's share capital by no more than PLN 18,262.20 (eighteen thousand two hundred and sixty two zlotys and 20/100) through the issue of no more than 182,622 (one hundred eighty two thousand six hundred and twenty two) series R ordinary bearer shares with a nominal value of PLN 0.10 (ten groszy) each. As of the date of publication of the report, the change had not been registered by the registry court.

On 24 April 2019, the Company's Extraordinary General Meeting adopted a resolution to issue no more than 182,622 (one hundred and eighty two thousand six hundred and twenty two) registered A series subscription warrants – subject to registration of the conditional increase in the Company's share capital, adopted on the basis of Resolution No. 06/04/2019 of the Extraordinary General Meeting of 24 April 2019. As of the date of publication of the report, the change had not been registered by the registry court.

Series P and R shares and series A subscription warrants were issued for the purpose of implementation of the incentive scheme for the management, employees and collaborators of the Company.

## 4.2. DESCRIPTION OF THE GROUP'S ACTIVITIES AND DEVELOPMENT OUTLOOK

## 4.2.1. BUSINESS MODEL, STRATEGY AND DEVELOPMENT OUTLOOK

The target XTPL model is to provide customers with unique printing heads – each designed and dedicated for specific applications – as well as nanoinks compatible with the printing heads. Revenues from printing head sales will be one-off in nature, while nanoinks will be on sale (after the client has purchased a printing head) on an going basis. XTPL's key objective is to develop and implement nanoprinting and ultra-precise deposition solutions adapted to market needs. The solutions will be commercialized in selected sectors, mainly in the area of printed electronics.

## THE PROCESS OF COMMERCIALIZING THE XTPL SOLUTION HAS BEEN DIVIDED INTO PHASES:

PHASE I (completed) – Development of a laboratory printer prototype (as a confirmation of the technology concept protected by a patent application) and a formulation of nanoinks compatible with the printer. At this stage, the Company did not generate any revenue; the activity was financed from external sources, such as grants, subsidies and share issue proceeds.

PHASE II (in progress) – The first commercialization of the developed technology through:

 sale of laboratory printers for the research and prototyping segment – a product that allows a technological relationship to be established with potential clients interested in industrial solutions;

## and/or

conclusion of JDAs (joint development agreements) or similar agreements aimed at joint development
of technology and hardware, focused on implementation in a specific application field, which will lead to
dedicated printing heads being designed and fabricated, followed by their implementation in selected
industry sectors.

At this stage, the Company expects to generate its first revenues.

PHASE III (target phase) – Providing comprehensive solutions for the industry: unique printing heads – dedicated for specific application fields, as well as compatible nanoinks. The Company plans that its printing heads – enabling implementation of the disruptive nanoprinting technology – will be designed by XTPL, fabricated by external subcontractors 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). Contracts for the sale of printing heads (one-off revenues) will also mark the beginning of cooperation in the supply of nanoinks (recurring revenues). XTPL also does not exclude the option of partial licensing of the technology for specific applications in justified cases, if partners declare their readiness for independent development of the technology in a specific industry sector.

At the current stage of development, the Company focuses on commercialization of the developed technology. An essential stage of this process is the search for potential clients or partners for joint development of the technology in the already verified application fields, as well as a multi-stage validation of the technology at the partners who expressed their readiness to cooperate after the Issuer has met all technological requirements. At present, the application fields include open defect repair and the smart glass segment. The first phase of commercial talks relates to the potential of implementing the technology at the client. It includes the presentation of a problem that might be addressed in a cost-effective and scalable manner based on the ultra-precise XTPL printing solution. Then, in order to validate the technology, the partner will provide the Company with a precise technological specification defining the requirements for the solution sought. As part of it, the XTPL application laboratory will carry out the proof-of-concept, presenting the outcome to the client for further evaluation. Meeting the specification – usually a multi-stage process – may (but does not have to) result in an invitation to negotiations or submission of a commercial offer. The transition to commercialization is never an immediate step – it oftentimes takes many months of intensive contacts between the Company and the interested partner, and is an effect of continuous research and development.

In the displays segment, the Company intends to deliver a breakthrough solution for the repair of broken metallic connections (open defect repair), defects occurring already at the production stage, one of the reasons for "dead pixels". The technologies available in the market have serious limitations, are complicated and costly. However, the defects need to be removed as conductive electrodes are used in semi-finished products whose production cost is a significant part (even 50%–70%) of the final product cost. The XTPL nanoprinting technology enables repairs to be made already at the production stage, reducing costs, ensuring precision and speed that none of the existing methods can offer. In conjunction with the automated optical inspection systems for defect detection, the XTPL technology is a comprehensive, ready-to-deploy solution. It could also benefit manufacturers of PCBs, MCMs, integrated circuits and solar cells.

As regards smart glass, the ultra-precise printing may give a major boost to technological progress of the whole sector. This is a young and particularly promising market. The smart glass design is based on conductive microstructures that are invisible to the naked eye. XTPL can provide a technology for a very precise deposition of ultra-thin structures with high conduction parameters. The technological progress would involve shortening the conversion time – in which smart glass changes from light to dark and vice versa. The industry has not tackled this challenge yet.

In Q4 2018, the Issuer, supported by its international Advisory Board, conducted further, in-depth analyses to draw up a roadmap for development of the XTPL technology and to define application fields that are key to commercialization. As a result, it was established that at the present stage, R&D and sales efforts should primarily focus on the above areas: open defect repair and smart glass. Next strongest potential (based on the "expected outcome to cost" criterion) is seen in semiconductors and quantum dots. Selection of strategic

application fields will help optimize and increase the effectiveness of XTPL's commercialization. Due to the platform character of its technology, the Company will also look for other applications for the developed solution in the broadly understood printed electronics industry, including in the area of biosensors, security printing and microelectronics. According to IDTechEx report "Printed, Flexible and Organic Electronics 2015-2025", the printed electronics sector is facing rapid growth – its global value is expected to reach over USD 70 billion dollars in 2027, with 9.3% CAGR.

The XTPL strategy is specifically focused on several sectors within this broad market. Technological innovation developed by the Company has every potential to first revolutionize and then to become a standard in many areas of the global industry. In the near future, we will print displays, solar cells, biosensors and other advanced features just as cheaply and fast as we print newspapers or books today. XTPL aspires to be one of the catalysts of this revolution.

## 4.2.2. STRATEGIC ACTIVITIES CARRIED OUT DURING THE FINANCIAL YEAR STARTING IMPLEMENTATION OF THE "GO TO MARKET" STRATEGY

In 2018, the Company started active commercialization of its ultra-precise printing technology. The "go to market" strategy adopted by XTPL managers is to give real and effective momentum to strictly sales-focused activities in the following years. In light of its assumptions, XTPL is actively looking for partners – potential clients – to conclude JDAs (joint development agreements)/ JVAs (joint venture agreements) or similar agreements, which are to underpin cooperation on technology development in the first two/three verified application fields. The joint technological development is expected to result in industrial implementations, and hence the sale of printing heads dedicated to these market segments and their compatible nanoinks. Optionally, and only in some cases, licenses would be sold. The key idea behind such cooperation would be to have the other party co-finance the XTPL's research and development work in return for, e.g. a priority right to purchase the final solution. For XTPL, this is also the shortest path to a commercial entry into the particular segment, because doing the project with a partner already operating in the selected industry guarantees appropriate calibration of the technology to suit the needs of future clients. The Company is currently focused on the United States and Southeast Asia, regions saturated with potential partners.

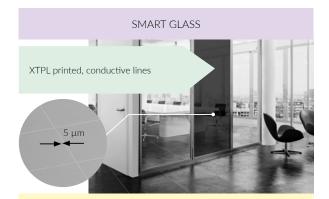
• Establishment of an international Advisory Board

One of the foundations of the "go to market" strategy is a carefully selected target market. The XTPL solution is groundbreaking on a global scale. This also gives rise to the need for global expertise. In May 2018, the Management Board and Supervisory Board set up an international Advisory Board. In accordance with its terms of reference, the role of the Advisory Board is to transfer expert knowledge to help grow the Company's business and develop its technology as well as to support the strengthening of the Company's credibility in target markets and to support the process of acquiring clients and partners.

The fist person to join the Advisory Board was Howard Hughes, a long-standing CFO and member of the Executive Board of Intel and a former CEO of Rambus. At present, Hughes also supports e.g. Kateeva, a company which commercializes breakthrough nanoprinting and ink solutions for the production of new generation OLED screens. Two months after the Advisory Board was formed, it was joined by Amir Nayyerhabibi, the man behind the success of Cortina Systems, among other firms. In addition to his involvement in XTPL, Nayyerhabibi is one of the partners in Benhamou Global Ventures from Silicon Valley, a fund investing in dozens of companies from the digital economy sector. With his extensive experience, he successfully supports projects which focus on a unique technology and have the potential for rapid growth.

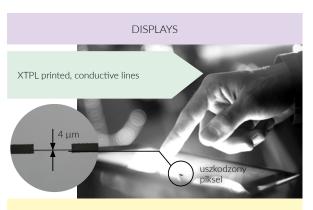
• Selection of the first application fields for commercialization

Optimization and improvement of effectiveness of the Company's commercialization activities is to be ensured by the roadmap for development of the XTPL technology, drawn up in the second half of 2018. Following in-depth analysis of a wide range of sectors and trades, taking into account their attractiveness and potential for fast implementation of nanoprinting, the business development team, supported by the international Advisory Board, has determined that at this stage R&D and sales efforts should focus on displays (particularly on open defect repair) and on smart glass. The next greatest potential is noted in semiconductors and quantum dots.



#### USPs.

- faster conversion of glass from light to dark and vice versa
- fast, simple & versatile method, lower production cost
- extremely high transparency



#### USPs:

- improvement of production yield in the advanced manufacturing lines
- ultraprecise additive technology saving costs, material & time
- ideal for ever increasing display resolution technologies
- Building operational structures in the United States

Effective commercialization activities are supported by operating in the same ecosystem as the potential business partners. For this reason, in less than four years after XTPL had been founded, the Company decided to start work on the development of operational structures in Silicon Valley. To this end, active steps were taken in Q3 and Q4 2018, finalised with formation, in February 2019, of XTPL Inc. - a US subsidiary with its registered office in Sunnyvale, Silicon Valley. Board Members of the new entity are Filip Granek, Harold Hughes and Amir Nayyerhabibi. American staff of XTPL Inc. will be the foundation of commercialization activities in this market, including in the promising smart glass sector. They will also support the processes of securing key intellectual property. By operating directly in Silicon Valley, the Company increases the credibility of XTPL in the eyes of potential American counterparties, as they prefer to do business with companies with local structures, also in the context of signing any contracts. In addition, this will increase the possibility of attracting local talent in the field of nanotechnology and business development.

• Establishing relationships with partners in selected segments

Over the past financial year, as a result of a planned and pursued business development strategy, the Company received technical specifications for proof-of-concept projects from more than ten potential clients. The interested firms were mainly from North America, Europe and Southeast Asia. They represent both the public and private sectors, operate in the segments of displays, smart glass, semiconductors, TCFs and security printing. The completed tests, material samples obtained, as well as the partners' openness and

readiness to define technology rules, combined with the rapid pace of potential implementations, shifted the focus of commercialization efforts to the displays area, specifically to the open defect repair and smart glass segments.

• Implementation of multi-stage, technologically advanced proof-of-concept projects

The purpose of verification of the technical specifications obtained from potential partners is to make a preliminary assessment of the feasibility of using the XTPL technology for the given partner. The assessment usually takes the form of multi-stage PoC projects, and the material samples prepared by the Issuer's application laboratory, in accordance the criteria prescribed in the specification, are a significant milestone which enables further discussions on commercial cooperation.

That this is the right path to follow was confirmed by cooperation with a global China-based manufacturer of equipment for the production of displays. The negotiations started in June last year (ESPI 8/2018 Current Report) were preceded by an advanced multi-stage PoC project in the area of open defect repair. Its positive result, followed by successful evaluation at the partner's R&D centre, as well as during and after demonstration of the technology at the Issuer's headquarters, resulted in commencement of the stage of commercial talks.

The same objective – to start negotiations and to make a direct commercial offer – was set for the multi-state PoC project started in the second half of 2018 for a leading American manufacturer from the smart glass sector. Now, the potential partner's s laboratory is doing its own tests to assess the degree of compliance with the requirements and the ability to implement XTPL solutions in its technological process. Their positive outcome may mean a real prospect of introducing the Company's nanoprinting technology to the smart glass market. Based on the groundbreaking XTPL solution, smart glass industry manufacturers will potentially be able to offer their customers new functionalities in their products.

During the financial year, the Company also conducted research and identified market opportunities related to quantum dots printing using the XTPL method. The work could be started thanks to the PoC project, successfully completed in July 2018, for one of potential US clients. The developed technology can be used, for example, in the production of Quantum LED (QLED) displays. The market of QLED TVs alone is forecast to exceed 100 million items in 2021 compared with 1.5 million in 2017 (source: DSCC 2017 report)

#### 2. Change of XTPL's listing market



Fot. 11 XTPL's debut on the Warsaw Stock Exchange, Warsaw 20 February 2019

Already in December 2017, the XTPL Management Board adopted a resolution to start work on changing the Company's stock listing market (ESPI 8/2017 Current Report). The goal was to enter the regulated market of the Warsaw Stock Exchange. As a result of the Management Board's decision, in April 2018, the Company's EGM adopted a resolution on application for admission and introduction of all the Company's shares to the main market in Warsaw (resolution No. 03/04/2018). In pursuance of the decision taken by the shareholders, in May 2018, the Management Board filed a request with the Polish Financial Supervision Authority (KNF) to approve the Company's share prospectus. On 14 February 2019, the Management Board of the Warsaw Stock Exchange adopted resolutions on the admission and introduction of XTPL shares to public trading on the WSE parallel market. The Company's debut ceremony on the WSE main market was held on 20 February 2019. In the opinion of XTPL's Governing Bodies, by changing the listing system, the Company will gain access to a wider base of institutional investors in addition to strengthening its credibility among existing and future business partners.

#### 3. Strengthening intellectual property protection - new patent applications

Late in Q2/ early in Q3 2018, the Company filed two more patent applications concerning its ultra-precise printing method. Both application were drawn up in cooperation with Gill Jennings & Every LLP, a London-based law firm (application numbers: GB1809311.2, GB1812691.2). The protection obtained under the first application will relate to the printing technology of conductive lines with higher current and mechanical strength. This solution has already been implemented in XTPL laboratory printers. Under the second application, XTPL will acquire the right to an invention that allows the printed substrate to be adapted to printing long lines with arbitrary shapes.

At the same time, XTPL laboratories continued further, intensive work on development of the technology and the patent cloud. A research project completed last year, resulted in three new patent applications, covering further layers of the obtained intellectual property in the area of nanoprinting. They were officially registered in January-March 2019. The first two applications relate to the process of ultra-precise deposition, and the third one concerns the ink used in the process. All the three applications were submitted in cooperation with K&L Gates, an experienced US-based law firm. On 20 March 2019, all the applications were submitted to the World Intellectual Property Organization, which triggered international PCT protection procedure.

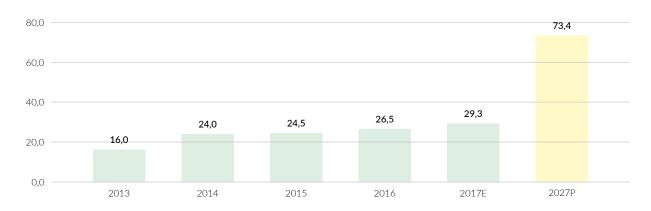
The patent applications ensure security for the Company and its disruptive technology. They will be one of the pillars of XTPL value. In the opinion of the Management Board, intellectual values will also have a positive impact on security of the ongoing commercialization processes.

#### 4.2.3. DISTRIBUTION MARKETS

The Company focuses on commercializing its technology in the broadly understood market of printed electronics – at the present stage, mainly in the displays sector (open defect repair in thin-layer electronic circuits), and in the smart glass sector.

According to IDTechEx, the value of the global market of printed, flexible and organic electronics was USD 29.3 billion in 2017. In 2027, the market is forecast to grow to USD 73.4 billion, with a CAGR at 9.3% in 2017–2027. The first markets selected by the Company for commercialization include the open defect repair, which according to the available studies and the Issuer's own calculations, was estimated at USD 158 million in 2017 (CAGR at 14.3% in 2017–2025)\*, while the smart glass market was USD 200 million USD in 2017 (CAGR at 40.4% in 2017–2026)\*\*. These are young, rapidly growing markets with huge potential.

An important element that fosters development of the electronics market is the growing number of new applications of printed, flexible and organic electronics in various fields. For example, it can be used to build smart sensors to create flexible fingerprint and vein readers or in the automotive industry, where car windshields will have displays with information on driving parameters.



Value of the world market of printed, flexible and organic electronics in 2013-2017 and forecast for 2027 (USD billion)

Source: IDTechEx

Ultimately, the Company will seek to ensure that its technology can be used in many existing areas of the printed electronics industry or – thanks to the unprecedented precision of printing – will lead to the emergence of new areas within this sector. The essence of the technological revolution resulting from the use of XTPL solutions is that it is to enable production of complex and complicated devices using cheap and scalable methods. The already identified and pre-verified application areas include:

- smart glass market
- display market (including, in addition to the open defect repair, the TCFs and quantum dots sectors)
- semi-conductors market
- PCB (printed circut boards) market
- security printing market
- biosensors market
- photovoltaic cells market

All the Company's R&D work takes place in Poland. Commercialization will be primarily focused on markets of North America (mainly the United States) and Southeast Asia (China, Korea, Taiwan, Japan).

## 4.2.4. CHARACTERISTICS OF INTERNAL AND EXTERNAL FACTORS

#### **EXTERNAL FACTORS**

#### Macroeconomic factors

In accordance with the adopted strategy, XTPL carries on its business in international markets, particularly in the United States, Southeast Asia and Western Europe. Accordingly, the macroeconomic situation in these areas will have an impact on the Company's results and the degree of achievement of its development strategy.

<sup>\*</sup> source: Market Research Outlet "Global FPD Inspection Equipment Market Study, Opportunities and Forecast" 2016, and the Company's internal calculations

<sup>\*\*</sup> source: https://www.glassonweb.com/news/smart-windows-materials-markets-2017-2026 and the Company's internal calculations

## Global development of the Issuer's key markets

#### Trends in printed electronics

The market of electronics, the production of which could potentially be completely replaced by additive printing techniques, reached USD 31.6 billion in 2018. According to information provided by IDTechEx, the display market, worth USD 26 billion in 2018, had the biggest share in this market. Currently, one of the most popular types of displays are those made in OLED technology. Even though organic material can be used in printers, it is subtractive methods that continue to be used most often. This is for the following reasons: first, the technology of electronics printing is relatively new. Manufacturers of devices for the production of e.g. displays, promote known subtractive methods. They are quite well optimized and ensure a very high speed of production of modules. The limitations of the previously available printing technologies seriously affected their efficiency. The second factor is that the optimum structures that can be obtained using inkjet printers available in the market have a minimum diameter of approx.  $30 \mu m$ , except that the precision of drops is +/-  $15 \mu m$ , and only +/-  $5 \mu m$  in the XY axis. For this reason, due to the low printing precision and insufficient control of the deposited amount of material, modern electronics is still waiting for a technology that will successfully replace the existing subtractive methods and offer at least comparable production parameters. The XTPL technology may provide such an alternative.

#### Trends related to the miniaturization of consumer electronics

Miniaturization has been the prevailing trend in electronics for several decades. As devices are reduced in size, the packing density of discrete components increases, resulting in a significant increase in performance of the devices. For example, this can be seen by the sheer comparison of the computing power of a modern smartphone to a PC computer manufactured 10 years ago. It turns out that even though the devices significantly differ in size, we have much more computing power in our pocket than we had on our desk just a decade ago. Certainly, the trend in miniaturization is visible in most electronic devices. At the same time, it enables production of completely new, previously unattainable products. Thanks to miniaturization, new medical instruments are devised which make treatment less invasive and allow the patient to recover faster. The biosensors sector is developing rapidly, where the key challenge is to find a solution with the highest efficiency, both in terms of precise targeting of selected analytes and a unique size-reduction capability, while allowing production using inexpensive and scalable methods. The telecommunications market generates less costs due to light, small and at the same time very efficient satellites. These examples are just a drop in the ocean of areas in which miniaturization has dramatically changed the picture of hardware in a relatively short time. Today, designers and engineers are working on products that will be available to consumers in another 5-10 years. All these products will have one thing in common - their electronic components will still require the supply of energy and electrical signals. Precise deposition of ultra-thin conductive lines and new active materials, such as light-emitting organic compounds or quantum dots, is the only way of cost-effective and easily scalable implementation of such projects. And this creates a potentially attractive application field for XTPL, which can offer here an absolutely groundbreaking solution, much awaited by the market.

#### Trends related to flexible electronics

The introduction of flexible electronics is now of key importance for the manufacturers who want to meet customer expectations and offer them new generation devices. These devices are intended to be ready for bending, folding or wearing, e.g. on clothes or directly on the skin. The boom in the market of flexible consumer electronics was expected for several years, but is only in 2019 that it is thought to generate the first serious revenues, with a very high CAGR expected in the following years. According to the available data, the value of this market in 2017 was USD 5.53 billion. With a CAGR of 18.1% it will reach USD 24.78 billion in 2026\*. Examples of products that will be available to consumers already this year include foldable

smarphones from Samsung and Huawei or a rollable TV, made in the OLED technology, presented by LG. Yet, even before these devices are put on the market, industry specialists, both engineers and technology journalists, warn against both the short life of these devices and their low resistance to external factors. In addition, the flexible electronics manufacturing technology has not yet entered the mass production stage. The prices of these devices are definitely too high, and they are treated more like a technological curiosity. In the coming years, massive production, and thus reduced costs, will be enabled by new methods of producing flexible electronics, which will additionally provide end products compliant with three major trends: miniaturization, energy saving and high reliability. The XTPL technology has every potential to play a very important role in this trend.

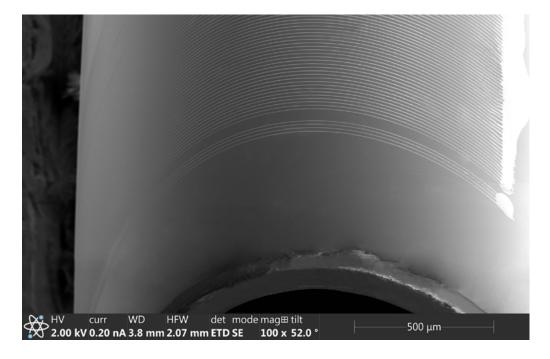


Fig. 12 Ultra-thin XTPL structures printed on a flexible foil do not lose their excellent electrical conductivity parameters.

## Trends in the smart glass sector

In modern large-size buildings, particularly office buildings, where access to sunlight is required for all people working in it, a lot of energy is consumed by air-conditioning systems. This is not compatible with the trend of designing and using buildings in an environmentally friendly way. This problem may be solved by special types of glass, which actively responds to changes in the intensity of external light, whereby transparency of the glass may be modified while maintaining its transparency. In this way, by minimizing the sunlight-induced heat energy coming into the room, the amount of electricity needed by the air conditioning system to maintain the room temperature can be dramatically reduced. This is in line with the LEED certificate developed by U.S. Green Building Council (USGBC). Holders of this certificate can obtain higher subsidies to their construction projects and tax reliefs. The certificate also makes the office space more attractive to commercial tenants in addition to preserving high value of the property. Despite its many advantages, smart glass, as a young market segment, still faces technological limitations which slow down the production process and which reduce the speed and efficiency of action (changes from light to dark glass and vice versa). As in modern office buildings

<sup>\*</sup>source: https://www.businesswire.com/news/home/20190117005574/en/Global-Flexible-Electronics-Market-Forecast-2026--

individual glass panes have a very large surface area, the use of subtractive production methods is becoming difficult and economically unfeasible. This problem can be addressed by the additive printing technology which can embed low-resistance conductive lines the size of which makes them invisible to the human eye. These advantages may be ensured by the technology developed by XTPL, which in cooperation with an American partner, a leader in the smart glass market, is preparing for implementation of its solution on the production line. The smart glass market is relatively new. For this reason, entering the Issuer's entering this segment with its technology may be relatively quickest. At the same time, this segment is characterized by strong potential demand and rapid growth. Here analysts forecast a very high CAGR of more than 40%. In 2026, the smart glass market is forecast to grow to USD 4.25 billion.\*

\* source: https://www.glassonweb.com/news/smart-windows-materials-markets-2017-2026 and the Company's internal calculations

#### Trends in the displays sector

Although very much mature, the display market continues to see technological innovation, not only that resulting from miniaturization trends, but also in the area of higher efficiency of light emission. This in practice means thin, very bright, high-contrast displays. Currently, the most intensive technological changes relate to the type of substrate on which the display is to be created. IDTechEx expects that as early as at the end of 2019, 40% of AMOLED displays will be plastic-based, with this proportion growing to nearly 60% in 2026, at the expense of glass substrates. This trend opens up development opportunities for another type of displays - flexible ones. Judging by the great interest attracted by this technology and the first products from this segment, in the coming years the technology will undoubtedly stand out in terms of its visible development and popularity. However, this will require a solution to the problems that can already be seen in the production processes. These include, for example, the fact that OLED screens are fabricated using an organic material deposited by FMM (fine metal mask) methods. Two main approaches are used here. The first one is intended for small displays such as telephones or watches - it consists in separate deposition of red, green and blue pixels. The process uses three different FMMs, and any material not deposited in the pixel is wasted. As well as being suboptimal, the process has technological limitations - it does not allow pixels to be deposited on large substrates. Why? Due to the amount and weight of the organic material, the distance between the FMM and the substrate must be increased, which produces a "shadow" effect. For this reason, another approach, which is used for e.g. fabricating large displays, is to embed WOLED (White Organic Light Emitting Diode) on the whole substrate in the first place. Next, a color filter is applied, the deposition of which is much easier. Unfortunately, only 20% of the light passes through the color filter, so much more electric power is required to maintain appropriate screen brightness, which in turn significantly reduces the life of such a screen. The problem can be addressed by the introduction of additive technology into the fabrication process as the technology enables precise deposition of the material with no restrictions as to the substrate. An additional advantage for the methods of printing in electronics is the potentially wide spectrum of materials that can be deposited. This makes it possible to fabricate completely new types of screens such as QLED - displays whose emission material is quantum dots, which ensure a very bright image with high contrast. Most of QLED-labelled displays that are currently on sale are in fact WOLEDs with the addition of quantum dots in a color filter. Admittedly, quantum dots, stimulated with blue light, emit the appropriate color of light and reduce the loss of light through a color filter by 80%, but it is only the introduction of a suitable additive method with a precise deposition will allow the potential of this material to be exploited in full. The main technological requirements for the fabrication of such screens include high repeatability of pixel sizes as well as precision in the XY axis. Bearing in mind the trend of continuous increase in resolution and hence pixel density, the XTPL technology has every potential to respond positively to market needs. The possibility of multiplication of printing heads will effectively increase printing efficiency following implementation of XTPL ultra-precise deposition on a production scale, and the wide range of materials that can be deposited using the Issuer's technology will help market new generation displays that are more efficient and consistent with the current consumer trends.

## Trends in additive manufacturing

In addition to the above developments, additive production is a quite discernible trend in modern electronics. Due to the extremely reduced size of structures, unattainable by any other method, the subtractive technology has become the main or in some areas even the only method of producing electronics. Continuous development of the printed electronics market increasingly often replaces previous methods with their excessive deposition of material. At present, there are printing devices available in the market that are successfully deployed in key positions on production lines. However, their capabilities are limited by the range of sizes that can be obtained, and their deposition precision is not sufficient in relation to the size and accuracy of arrangement of individual discrete components in electronic circuits. Taking into account these rigorous parameters and the huge market demand, the technology developed by XTPL may constitute a breakthrough in the context of printed electronics production. The sheer number of possible application areas within this sector where the XTPL technology might by used bears witness to its versatility and huge potential.

## Possibility of co-financing R&D from subsidies

In addition to using own funds acquired through the share issue, the Company's R&D activities are also funded by EU grants. As the Company makes headway in its business, it will develop its technologies and look for new applications for its own solutions. This development will also be helped by EU grants.

#### Global trends connected with Industry 4.0

Trends connected with Industry 4.0 are the basis for most changes, especially technological ones, that currently occur in the manufacturing industry. Globally, a number of trends can be noted in this area:

a) Digital transformation links up with Industry 4.0

More and more manufacturing companies successfully digitize their administrative processes and stay on this course by putting Industry 4.0 into production.

b) The market of Industry 4.0 startups is growing rapidly

With less and less space for innovation in consumer-oriented internet, investors are turning to innovative, young B2B companies, particularly those offering solutions specific to Industry 4.0. International corporations have chosen to go down a similar path as they are increasingly interested in incorporating such companies into their R&D functions.

c) lioT (Industrial Internet of Things) platforms are gaining on popularity.

Both small companies and technology corporations (e.g. Google) are actively working on connected technologies that can be deployed in production processes. Examples include Android Things 1.0 – the first, universal operating system for all IoT (Internet of Things) devices put on the market.

d) Most of the AI (Artificial Intelligence) and IoT technologies developed today benefit the production sector.

It is not only companies from the industrial automation industry, such as ABB and GE, that are investing in Industry 4.0. The ongoing revolution also benefits greatly from general innovation in the segment:

- Speech recognition deep and machine learning (Amazon, IBM, Salesforce)
- Image recognition, layer detection and data dependencies deep and machine learning (Nvidia, Intel)
- Additive production (Autodesk, XTPL)
- e) Artificial intelligence improves quality control.

As the integration of software and hardware that uses it becomes closer, machines get smarter, which makes it possible to anticipate or even avoid the need for repair. Artificial intelligence may detect, report and even

repair problems on production lines. Big data, additive production and the Internet of Things are conducive to the development of more sophisticated, high-quality products.

f) New forms of cooperation between humans and machines.

Augmented reality solutions and touch interfaces are gradually transforming the way machines are controlled and operated by personnel.

g) Result control improves performance.

By anticipating the need for repair, which leads to uninterrupted and automated production, factories waste less resources. In this way, manufacturers can effectively measure the final price of the product, relying on the degree of machine use and efficiency known to them.

h) Cybersecurity is becoming increasingly important.

Firms entering Industry 4.0 obviously wish to ward off any new security threats. This is the time for companies – security agencies specializing in the protection of both hardware and software.

i) Additive production of metals is becoming reality.

While the consumer market of 3D printing has experienced a pronounced fall since 2016 as it fell short of high expectations, the industrial sector still shows a lot of interest in additive technologies. American venture capital investors (Lux, Khosla, Asimov, True Ventures and SOSV) actively invest in industrial additive production.

### **INTERNAL FACTORS**

#### Ability to protect and safeguard intellectual property

Effective protection of the intellectual property developed by XTPL is an essential part of its business. The ongoing patent applications ensure security for the Company and its disruptive technology. At the same time, they are one of the pillars of XTPL value. The intellectual value obtained may also have a positive impact on the ongoing and future commercialization talks.

In the process of protecting and safeguarding intellectual property, the Company is supported by renowned entities: law firms from the UK and the USA. The London-based law firm Gill Jennings & Every is a team of more than 100 lawyers, which received multiple awards in the prestigious Legal 500 ranking. The firm ensures patent protection for both SMEs and global corporations. The K&L Gates law firm (office in Palo Alto, California, USA) supports patent protection of companies specializing in advanced technologies, particularly those from Silicon Valley.

Cooperation with these law firms resulted in two patent application made in 2018, with another three applications already submitted in 2019.

#### Ability to acquire and maintain appropriate staff

The Company's business profile – building solutions for the high-tech sector – requires the use of high-class specialists from various fields: chemistry, physics, electronics, mechanics, material engineering and numerical simulations.

Staff sourcing is a two-pronged process: The Issuer conducts a number of activities in the area of employer branding, and strives to be present at national conferences on nanotechnology, constantly extending its network of contacts.

Further, the new incentive scheme will be an essential factor that will allow appropriate personnel to be acquired and maintained. The scheme will be based on warrants (share options) for up to 10% of the Company's capital. The purchase price of the shares offered to the scheme's beneficiaries will be set at the level of the market value of XTPL stock at the time of approval of the program. The warrants' underlying stock will be issued gradually in the years 2020–2029. The XTPL's new incentive scheme provides for an annual vesting period. The scheme will also use shares from the previous incentive scheme and – to a small extent (approx. 2% of the share capital) – the issue of series P shares (to supplement the stock pool due to the increase in the number of scheme participants). As a result, the scheme will bring maximum benefits in terms of building the value of XTPL, while not causing any noticeable equity dilution for the existing shareholders. By acquiring new staff Members with excellent qualifications and retaining existing ones, the incentive schemes seek to promote long-term growth of XTPL value.

The Company develops an innovative technology which is groundbreaking on a global scale. The young and ambitious personnel may also be motivated by the desire to shape the global nanofuture. The XTPL ultraprecise printing has every chance to change the face of many sectors through implementation of advanced, revolutionary technology. Giving employees an opportunity to take part in such undertaking will certainly be a precious asset for the Issuer. Aware of this, people will want to joint the XTPL team and correlate their development with building the Company's value and the nanoprinting it offers.

## First industrial implementations

The Company will strive to implement its breakthrough technology in selected application areas fast and effectively. The first implementations will pave the road to efficient and effective negotiations with subsequent clients. This is the best way of validating the XTPL technology in terms of needs and requirements of a particular industry. The Issuer plans to sign the first commercial contracts in 2019. These will be JDAs (joint development agreements)/ JVAs (joint venture agreements) or similar agreements – which are to be the basis for cooperation in the field of technology development in the first two–three verified application fields. Joint technological development would ultimately result in the sale of dedicated XTPL solutions or, where justified, the sale of licenses. The key idea behind such cooperation would be to have the other party co-finance the XTPL's research and development work in return for, e.g. a priority right to purchase the final solution. For XTPL, this is the shortest way to make a commercial entry into a selected segment, as teaming up with a partner who already operates in the sector would guarantee appropriate calibration of the technology for the needs of future clients. The completed tests, material samples obtained, as well as the partners' openness and readiness to define technology rules, combined with the rapid pace of potential implementations, make it possible to assume that the first implementations will probably take place in the displays sector, notably in the open defect repair segment, as well as in the smart glass segment.

## Strengthening operational and commercialization activities in the USA

In February 2019, the Issuer set up its US subsidiary XTPL Inc. with its registered office in Sunnyvale, Silicon Valley. Board Members of the new entity are Filip Granek, Harold Hughes and Amir Nayyerhabibi. American staff of XTPL Inc. will be the foundation of commercialization activities in this market, including in the promising smart glass sector. They will also support the processes of securing key intellectual property. By operating directly in Silicon Valley, the Company increases the credibility of XTPL in the eyes of potential American counterparties, as they prefer to do business with companies with local structures, also in the context of signing any contracts. The issuer plans to actively carry on its strategic activities in the United States as this country, particularly Silicon Valley, is a unique melting pot of industry, innovation, capital and people. Silicon Valley is a natural direction for XTPL, including due to the concentration of companies in this area that are leaders of the most interesting fields of industry for the Company. At the same time, it is a market with a unique business infrastructure and vast experience in implementing high technologies.

Establishing XTPL in the Silicon Valley environment will enable the Company to acquire local talent in technology and business development.

# 4.3. ACTIVITY OF XTPL S.A. IN 2018

#### 4.3.1. SIGNIFICANT EVENTS AFFECTING THE ISSUER'S OPERATIONS

STARTING NEGOTIATIONS ON COMMERCIALIZATION OF THE TECHNOLOGY WITH A GLOBAL CHINA-BASED MANUFACTURER OF EQUIPMENT FOR THE PRODUCTION OF DISPLAYS

In March 2018, one of the global manufacturers of display devices based in China sent the Issuer a technical specification with exact requirements for the technology it was looking for in the area of open defect repair. During the multi-stage work, the XTPL application laboratory team reached all assumptions of the submitted specification and thus met the criteria set by the partner. The high evaluation of the tests resulted in XTPL being invited for the first time to negotiate the terms of potential cooperation. The Issuer informed about commencement of the process in the ESPI 8/2018 Current Report. The potential client is a company listed on China stock exchange, and its capitalization is more than USD 9 billion. The long-term goal of the negotiated cooperation is to implement the Issuer's technology as a component of the offered technological lines for the production of displays. The intensive talks held in 2018 were designed to ensure the best possible adaptation of the advanced nanoprinting technology to the partner's industrial conditions. Their outcome was a reference visit by the partners' representatives to the XTPL headquarters in the first week of December 2018. At present, the final model of cooperation, alongside intermediate stages, is being fine-tuned.

#### DECISION TO CHANGE THE LISTING MARKET AND SUBMISSION OF SHARE PROSPECTUS TO THE KNF

On 16 April 2018, the Extraordinary General Meeting of Shareholders of the Company adopted resolution No. 03/04/2018 on applying for admission and introduction of XTPL shares to trading on the regulated market of the Warsaw Stock Exchange. In pursuance of the decision taken by the Company's shareholders, on 9 May 2018, the Issuer's Management Board filed a request with the Polish Financial Supervision Authority (KNF) to approve its share prospectus.

### ESTABLISHMENT OF AN INTERNATIONAL Advisory Board



Fig. 13 Amir Nayyerhabibi at the Company's head office, Wrocław 2018.

In May 2018, the Issuer's Management Board and Supervisory Board approved the Terms of Reference of the XTPL Advisory Board. The Board's role is to support the Management Board and the Company's key managers in the process of taking strategic decisions, transfer expert knowledge to help business and technology development, and support the process of building the Company's credibility in target markets and acquiring clients.

The frist person to join the Advisory Board was Howard Hughes, a long-standing CFO and member of the Executive Board of Intel and a former CEO of Rambus. He has extensive experience and expertise in, inter alia, the semiconductor industry, using them with success to provide advice to pioneering technological companies from Silicon Valley. At present, in his advisory capacity, Harold Hughes also supports Kateeva, a company which commercializes breakthrough solutions in the area of nanoprinting and inks for the production of new generation OLED screens. At the level of the Advisory Board, Harold Hughes will support XTPL on its global expansion journey, particularly in the United States and Asia.

## INCREASED EQUITY INVESTMENT BY ACATIS DATINI VALUEFLEX FONDS

On 10 August 2018, the Issuer's Management Board announced that it had obtained from Universal-Investment-Gesellschaft mbH, acting for and on behalf of the existing shareholder ACATIS Datini Valueflex Fonds, a declaration of interest regarding an increase in ACATIS' equity investment in the Issuer through acquisition of newly issued shares (ESPI 9/2018 Current Report). In consequence, the Company's Management Board adopted a resolution increasing its share capital within the authorized capital, excluding the pre-emptive rights of the existing shareholders (EBI 23/2018 Current Report). Based on the above resolution, the share capital of XTPL was increased from PLN 169,522.00 to PLN 174,222.00, i.e. by PLN 4,700 PLN, through the issue of 47,000 series N ordinary bearer shares with a nominal value of PLN 0.10 each. The series N shares were issued through a private placement by offering the acquisition of all those shares to Universal-Investment-Gesellschaft mbH acting for and on behalf of ACATIS Datini Valueflex Fonds. As a result, on 3 September 2018, the Issuer's Management Board announced that it had signed an agreement with Universal-Investment-Gesellschaft mbH on acquisition of 47,000 series N shares (ESPI 10/2018 Current Report). The series N shares were acquired at the issue price of PLN 94 per share and were fully paid up in cash (PLN 4,418,000). The proceeds will finance the increase in XTPL's sales activity in the US market.



Fig. 14 Hendrik Leber (CEO of ACATIS GMBH) with
Dr. Claudia Giani-Leber as well as representatives of XTPL
- Filip Granek and Aneta
Wiatrowska - during a visit to the Company's headquarters,
Wroclaw, December 2018

# INCREASED INVESTMENT BY HEIDELBERGER BETEILIGUNGSHOLDING AG FUND - EXCEEDING 10% IN THE NUMBER OF TOTAL VOTES OF THE ISSUER

On 18 September 2018, the Issuer's Management Board announced that it had agreed with Deutsche Balaton AG, a parent entity of Heidelberger Beteiligungsholding AG, the Company's shareholder, the terms of increasing its equity investment in the Issuer by taking up newly issued shares (ESPI 11/2018 Current Report). As a consequence, the Company's Management Board adopted a resolution increasing its share capital within the authorized capital, excluding the pre-emptive rights of the existing shareholders (EBI 25/2018 Current Report). Based on the above resolution, the share capital of XTPL was increased from PLN 174,222.00 to PLN 178,362.00, i.e. by PLN 4,140,00 PLN, through the issue of 41,400 series O ordinary bearer shares with a nominal value of PLN 0.10 each. The series O shares were issued through a private placement by offering the acquisition of all those shares to Heidelberger Beteiligungsholding AG. As a result, on 22 October 2018, the Issuer's Management Board announced that it had signed an agreement with Heidelberger Beteiligungsholding AG on acquisition of 41,400 series O shares (ESPI 14/2018 Current Report). The agreement ends the subscription of those shares, a process started on 26 September 2018 The issue price of one series O share was set at PLN 109. The Issuer obtained PLN 4,512,600 from the issue. The funds acquired will finance XTPL's business development activities in the United States, particularly in the Silicon Valley area, and will strengthen the Company's global patent cloud (through financing subsequent applications).

On 12 November 2018, following of series O shares by the registry court, the Issuer announced that Heidelberger Beteiligungsholding AG had exceeded 10% of votes at the Company's General Meeting.

#### ADVANCED PoC FOR A SMART GLASS MANUFACTURER IN THE UNITED STATES

In the second half of 2018, the Issuer's R&D team delivered an advanced, multi-stage proof-of-concept project for a leading American manufacturer from the smart glass industry. Now, the potential partner's s laboratory is doing its own tests to assess the degree of compliance with the requirements and the ability to implement XTPL solutions in its technological process. A positive outcome will open the door to commencement of negotiations on a project of development of a dedicated printing multi-head with dedicated nanoink. This will mean a real prospect of introducing the nanoprinting technology to the smart glass market. Taking into account its expected growth, the market is particularly promising. The available data show a very high 40.4% CAGR for this market\*. The estimated value of this sector is USD 4.25 billion in 2026.

## **SELECTION OF STRATEGIC APPLICATION FIELDS**

In Q4 2018, the Issuer, supported by its international Advisory Board, conducted further, in-depth analyses to draw up a roadmap for development of the XTPL technology and to define application fields that are key to commercialization. As a result, it was established that at the present stage, R&D and sales efforts should primarily focus on displays (notably open defect repair) and smart glass. The next greatest potential is noted in semiconductors and quantum dots sectors. These activities aim to create a roadmap for technology development to optimize and increase the effectiveness of the Issuer's commercialization activities.

# EXTENSION OF THE THE PATENT CLOUD

Late in Q2/ early in Q3 2018, the Issuer filed two more patent applications concerning its printing method. Both application was drawn up in cooperation with Gill Jennings & Every LLP, a London-based law firm and were filed with the Patent Office in the UK. The protection obtained under the first application will relate to the printing technology of conductive lines with higher current and mechanical strength. This solution has already been implemented in XTPL laboratory printers. Under the second application, XTPL will acquire the right to an invention that allows the printed substrate to be adapted to printing long lines with arbitrary shapes.

## **CHANGES IN THE Supervisory Board**

On 16 April 2018, due to resignation of Piotr Janczewski, the Company's Extraordinary General Meeting appointed Wiesław Rozłucki, the former president and co-founder of the Warsaw Stock Exchange, as a new Member of the Company's Supervisory Board (EBI 10/2018 Current Report). Wiesław Rozłucki was subsequently elected as the Chairman of the Company's Supervisory Board. With his expertise and experience, he actively supports XTPL in its activities related to capital markets and broadly understood corporate governance. On 28 May 2018, the AGM appointed Piotr Lembas to the Company's Supervisory Board (EBI 10/2018 Current Report). The new Member of the Supervisory Board replaced Agnieszka Młodzińska-Granek after she had stepped down from her role.



Fig. 16 Wiesław Rozłucki, Filip Granek and Maciej Adamczyk at the Company's WSE debut ceremony; Warsaw, 20 February 2019

## AWARD FOR THE LARGEST TECHNOLOGICAL POTENTIAL

On 20–24 May 2018, the Company's representatives took part in the Display Week symposium and trade show in Los Angeles – the world's most important industry event of display manufacturers. During the show, XTPL received an award for one of the most promising technologies among the participants of the I-Zone (innovation zone). The Display Week show was also attended by such global giants as Apple, Samsung, LG Display, Sharp and Intel.

 $<sup>^*</sup> source: https://www.glassonweb.com/news/smart-windows-materials-markets-2017-2026\\$ 

### FILIP GRANEK HONORED WITH THE TITLE OF EY ENTREPRENEUR OF THE YEAR 2018

In November 2018, Filip Granek, the CEO and founder of XTPL, was awarded with the title of EY Entrepreneur of the Year 2018, becoming a winner of this competition in the New Business category. He was awarded for his work on the disruptive technology that has a serious chance to change the world for the better. At 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 help significantly increase the visibility and credibility of XTPL not only in Poland, but also on the international stage.

## SIGNIFICANT EVENTS AFTER THE REPORT DATE

### ACQUIRING 100% STAKE IN XTPL INC. BASED IN THE UNITED STATES

In February 2019, the Issuer acquired 100% in its newly formed subsidiary: XTPL Incorporated, headquarters in Sunnyvale, California, USA. The Executive Board of the Company, includes, in addition to Filip Granek: Harold Hughes (former CFO of Intel and CEO of Rambus) and Amir Nayyerhabibi (partner at Benhamou Global Ventures) – the current Members of the international XTPL Advisory Board. The international personnel of XTPL Inc. will back up the processes of securing the key IP and delivery of implementations in cooperation with industry giants. Operating directly in Silicon Valley, the entity will also increase the possibility of attracting local talent in nanotechnology and business development.

## APPROVAL OF THE ISSUER'S SHARE PROSPECTUS AND DEBUT ON THE WSE MAIN MARKET



Fig. 16 Maciej Adamczyk and Filip Granek at the ceremony of XTPL debut on the main market of the Warsaw Stock Exchange, Warsaw, 20 February 2019.

On 25 January 2019, the Polish Financial Supervision Authority (KNF) approved the Issuer's share prospectus connected with XTPL's application for admission and introduction to trading on the regulated market of a total of 1,695,220 shares – series A, B, C, D, E, F, G, H, I, J K, L and M on 14 February 2019. The WSE Management Board adopted resolutions on introducing the above XTPL shares to trading on the WSE parallel market. The Company's debut ceremony was held on 20 February 2019. The condition for introduction of the series L shares to the public trading on the regulated market was the registration of these shares by the Central Securities Depository of Poland (KDWP). The KDPW took its decision in this regard on 12 February 2019. In the opinion of XTPL's Management Board, by changing the listing system, the Company will gain access to a wider base of institutional investors in addition to strengthening its credibility among existing and future business partners.

# THREE NEW PATENT APPLICATIONS AND FURTHER ADVANCED WORK ON EXTENSION OF The Company'S INTELLECTUAL PROPERTY

In December 2018, the Issuer's R&D team completed work on further patent applications, including further layers of the obtained IP in nanoprinting. The official registration of applications, which will also mark the moment of starting the international legal protection, took place a month later – in late January/ early February. In the patent process, XTPL will be supported by K&L Gates, an experienced US law firm operating in Palo Alto. The patent applications ensure security for the Company and its disruptive technology, being one of the pillars of XTPL value. In the opinion of the Issuer's Management Board, the patent applications may potentially have a positive impact on the ongoing and future commercialization talks.

#### 4.3.2. SOURCES OF SUPPLY

The Company conducts R&D in the area of nanoprinting technology. Due to the advancement of the technologies developed by the Company, it makes use of a wide range of products and services available in the market, the key ones being measurement, research, formulation development and patent protection services as well as services related to rental of specialist equipment and laboratories. The great diversity and variability of the Company's R&D work is reflected in the number of sources of supply it uses. As a result, in 2018, the Company did not exceed 10% of purchases (in terms of operating costs) with any of its suppliers. With such strategy, during the financial year the Company did not face the risk of dependence on any single supplier or a group of suppliers.

## 4.3.3. SIGNIFICANT AGREEMENTS

The Company concluded significant agreements in relation to grants, as described in point 4.7.7.

# Overdraft agreement

In April 2018, the Company signed an overdraft agreement of PLN 300,000 with Bank Zachodni WBK S.A. (currently Santander Bank Polska S.A.). The facility has not been used so far (the agreement's expiry date was 31 March 2019).

In April 2019, an annex to the agreement was signed, with the credit limit being extended to 25 March 2020.

# Lease agreement

In January 2017, the Company signed a passenger car lease agreement with mLeasing sp. o.o. The lease period is 35 months.

# Space lease agreement

In September 2016, the Company signed an agreement with Wrocław Research Center EIT + sp. o.o. (currently PORT sp. o.o.) for the lease of office space and laboratories. The agreement was extended several times. The lease term is unlimited, and the period of notice is 6 months.

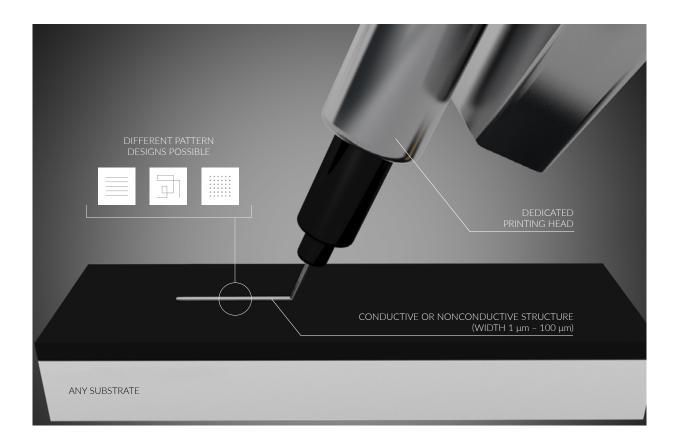
## 4.3.4. CHANGES IN THE KEY PRINCIPLES OF MANAGING THE COMPANY

In 2018, no changes took place in the key principles of managing XTPL S.A.

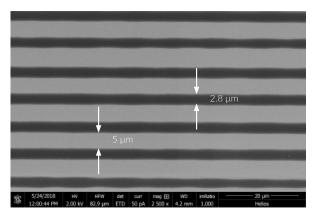
# 4.4. KEY PRODUCTS

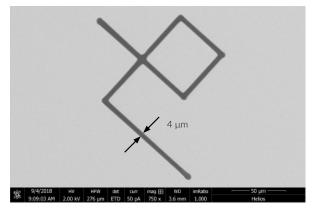
# GROUNDBREAKING NANOPRINTING TECHNOLOGY

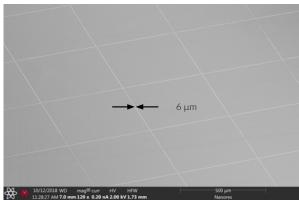
The unique technology developed and commercialized by the Issuer is characterized by unparalleled precision, speed and versatility. The XTPL printing head, equipped with a special nozzle, applies ink to the substrate using an ultra-precise deposition technology.

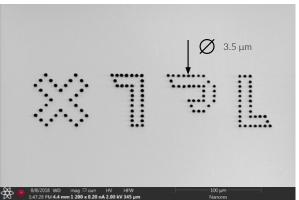


The XTPL method can be used for printing using a variety of materials: conductive inks, suspensions with nanoparticles, suspensions with semiconductors, insulating inks, resistors, inks with solvents and biological materials. The technology can be used for printing on any conductive and non-conductive substrate, such as glass, flexible foil (Kapton, PET, PEN, PDMS) and silicon wafers. In contrast to the widely used INKJET method, no flat substrate is required, so printing can take place on rough substrates, including 2D and 2.5D ones. The shape, width, length and distance between individual structures depend on specific requirements. The size of printed structures is one of the key parameters in this revolutionary additive method. The XTPL solution ensures a micrometer scale (1–100 um), much sought for by many advanced industry sectors. The Issuer creates complex numerical models and uses advanced characteristics of nanoinks and printed lines. This allows the Company to constantly optimize its innovative technology and adapt the printing and deposition process to different implementation requirements specific to individual market segments. The XTPL technology can be used to create both simple lines as well as patterns or microdots. Sample patterns are presented below:









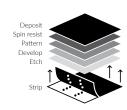
The main competitive advantage and groundbreaking feature of the additive XTPL solution is its unprecedented precision. Until now, subtractive methods have been commonplace in the market because for some components no additive method was available that would yield desired results. Subtractive manufacturing is a process by which an object, pattern or structure is created by successively cutting material away from a solid block of material. Although the method ensures high control and precision, it is material and time-consuming, and therefore expensive. It is not very versatile either as changes in design require complex adaptations. In the additive manufacturing method, each object, pattern or structure is created by successively depositing (adding) the material until the pre-designed shape is achieved. Modern additive printing has always been useful in rapid prototyping, but is now becoming increasingly important in the manufacturing process.

## **ADDITIVE TECHNOLOGY**



The material is precisely applied/added only in strategically planned placed places to obtain given pattern

## SUBTRACTIVE TECHNOLOGY



After the material has been applied to the whole surface, unnecessary material is removed to obtain given pattern; this process requires the use of a dedicated, expensive photolithographic mask, it is complicated and multistage

XTPL provides a revolutionary additive technology that allows conductive and non-conductive submicron structures to be created for various applications. This solution ensures precision that is unachievable by any other printing method in the world. The XTPL solution is a response to the market's constant strive for miniaturization and delivery of the highest efficiency using cost-effective and scalable methods. The Company's business model also provides for an option of partial licensing of the technology for specific applications in justified cases, if partners declare their readiness for independent development of the technology in a specific industry sector.

#### **PRINTING HEAD**

The ultra-precise printing using the XTPL method is possible thanks to, inter alia, the unique design of the printing head created by the Company's R&D team. The printing system is electronically controlled and as a whole constitutes a modular, compact structure that is fully parameterized by the user by means of an intuitive interface. The printing head's software provided by XTPL greatly facilitates integration of the system with the master software that manages the printing process and configuration of the desired operating parameters of the printing head. The Company assumes that individual modules of the printing head will be manufactured by external subcontractors and finally assembled by XTPL. The Issuer intends to supply its printing heads – each time designed and dedicated for specific applications and suited to the technological process of each client.



### **NANOINKS**

In addition to the printing head, another component, and a product in its own right, which makes ultraprecise printing by means of the XTPL method possible, are the nanoinks created in the Issuer's laboratories. To achieve optimum results, XTPL has developed its own nanoink formulations based mainly on silver (Ag) nanoparticles. The Issuer's laboratories also create unique ink formulations based on the following nanoparticles: Au, Cu, CdS and TiO2. The formulation of XTPL's nanoinks is each time precisely adjusted to specific requirements and is compatible with the printing head. The composition of XTPL nanoinks and the way they are synthesized is the Company's intellectual property protected by an international patent application. Where large volumes of nanoinks are ordered, the Issuer will subcontract their production to an appropriately selected subcontractor.

## 4.5. 4RISKS FACTORS AND THREATS

### 4.5.1. RISK FACTORS AND THREATS RELATED TO THE COMPANY'S BUSINESS ENVIRONMENT

#### 4.5.1.1. MACROECONOMIC RISK

The Company's activity depends on the macroeconomic situation in the markets in which the Company plans to start the sale of its products and services, primarily in the United States, Asia and Western Europe. Profitability of the Company's operations will depend, inter alia, on the economic growth, consumption level, fiscal and monetary policy, inflation, and especially the level of expenditures on consumer electronics in those countries. All these factors may have an impact on the Company's financial results, and thus may also affect implementation of the Company's development strategy.

## 4.5.1.2. CURRENCY RISK

Due to the fact that the Company's clients will be international entities, most of the Company's revenues related to the commercialization of technology will be settled in foreign currencies (mainly the euro and the US dollar). At the same time, as the Company is based in Poland, most of its ongoing expenses will be settled in the Polish zloty. As a result, in the future the Company may be exposed to a significant FX risk. Volatility of exchange rates may primarily cause changes in the value of the Company's revenues and receivables after their conversion into PLN.

It will be necessary to identify the risk of appreciation of the Polish currency as this will cause a fall in the Company's revenues expressed in the base currency (PLN), pushing profit margins down. An increase in currency risk in the Company's operations may have a material adverse effect on its trading performance and financial position.

As at the report date, the Company sees currency risk as a significant threat to the expected level of its operating profitability. As and when required, the Company will resort to FX risk management instruments available in the banking market.

## 4.5.1.3. NEW TECHNOLOGY RISK

The market in which the Company operates is characterized by rapid development of technologies. For this reason, the development of the Company's operations entails constant tracking and analysis of new market trends and identification of emerging potential competitors and technological solutions they implement.

There is a risk that if the current market trends change, the Company will be forced to look for new applications for its technology outside of what it previously saw at its core business or to incur expenditures to make its existing solutions more competitive. Likewise, the Company can not rule out that in the future

a new technology will be developed which will make the solutions offered by the Company unattractive for potential clients.

Materialization of this risk will mean additional costs, which will adversely affect profitability of the Company's operations. In addition, the need for extra work may delay the moment of commercialization of the Company's product.

#### 4.5.1.4. COMPETITIVE RISK

The Company operates in a very attractive market of modern technologies characterized by a steadily growing demand. In this market, there is a number of players whose experience and capital resources are higher than those of the Company. As the market is changing fast, there is a risk of a new entity emerging whose offer will be more innovative than the Company's offer. A competitive edge may be obtained by implementing innovative, unique solutions that are attractive for prospective clients in utility and economic terms.

As of the report date, the Company is not aware of any solutions that would technically offer better parameters for TFLs or open defect repair. However, it cannot be ruled out that a new entity or a solution will emerge that will surpass the Company's technology in some or all key parameters. There is also a risk that the Company will be unable to respond quickly or effectively to the changing market environment, and consequently the solutions offered by the Company will be considered less competitive. Materialization of this risk may have a negative impact on the sale of the Company's products and services and, in consequence, on its trading performance.

### 4.5.2. RISK FACTORS RELATED TO THE COMPANY'S OPERATIONS

# 4.5.2.1. RISK ASSOCIATED WITH THE PROCESS OF IMPLEMENTING TECHNOLOGY IN THE COMMERCIALIZATION PHASE

The Company's business model provides for a gradual introduction of the technology of printing ultrathin conductive lines for various applications in printed electronics into the commercialization phase. Commercialization will cover printing devices and nanoinks. The target business model is that the Company will manage the whole value chain, i.e. manufacture, product marketing, distribution and provision of specialized services tailored to the client's needs.

The Company has analyzed its potential market, relying both on market reports from independent consulting companies and on consultations with industry experts. The conclusions from this analysis confirms a demand for such solutions, especially in the context of the increasing miniaturization of electronic devices and consumer expectations regarding new functional features (e.g. flexible personal electronics).

The potential profitability of various market segments was estimated based on the cost calculations carried out by the Issuer (both the unit cost of a product and the expected commercialization cost) and comparing them with the prices of the solutions which are the market standard today. As a result, the Issuer's Management Board has assessed that the application fields selected for commercialization in the first place, are justified both in terms of their relevant market potential and achievable profit margins, leading to an expected return on the investment into the project. Based on these analyzes, the Management Board believes that the projects implemented and the Company's development plan are a guarantee of profitability of its operations.

However, there is a risk that introduction of devices into individual markets will not be in line with the current expectations due to, for example, a lack of or insufficient demand in target countries, misidentification of potential clients' needs, misidentification of legal conditions, incomplete adaptation of the Company's products to the requirements of foreign markets, an ineffective promotional campaign or an unexpected emergence of a competitor. Occurrence of the above events may stifle the Company's growth dynamics, adversely impacting its operations and financial position.

#### 4.5.2.2. RISK OF FAILURE TO ACHIEVE REVENUES

The Company's business model provides for a gradual introduction of the technology of printing ultrathin conductive lines for various applications in printed electronics into the commercialization phase. The Company's future revenues are thus dependent on the degree of success of the commercialization, which in turn is influenced by many factors, including those beyond the Company's control. Similarly, failure to obtain co-financing from shareholders may result in the Company being unable to complete its product or the commercialization phase to the extent that would allow revenues to be generated. As a result, both the Company and its shareholders might not achieve the expected profits and returns, and the Company's investors might not be able to recover their funds invested into the Company's stock.

### 4.5.2.3. RISK OF LOW PRODUCT QUALITY

The Company's business model providing for a gradual introduction of the technology of printing ultra-thin conductive lines for various applications in printed electronics into the commercialization phase gives rise to a risk of defects or insufficient product quality at the initial commercialization phase. It is possible that during the first stage of product commercialization, unforeseen defects will emerge or the product quality will not be satisfactory for market participants. Such situations may result in a negative first reception of the Company's products and, consequently might dampen interest in and demand for the product. As a result, at the initial commercialization phase the Company might not receive revenues in the expected amount.

# 4.5.2.4. RISK RELATED TO THE BUSINESS DEVELOPMENT MODEL AND THE FAILURE DELIVER THE COMPANY'S STRATEGY

The ultimate goal of the business model is commercialization of the Company's ultra-precise technology of printing a wide range of nanomaterials. Due to the early stage of its development, the Company does not operate a fully replicable business model yet. Nevertheless, the Company has created a development strategy based on which it intends to put on the market licenses or products it has manufactured and use them to commercialize its technology.

Due to the geographic and economic conditions in the market, the Company will develop its business presence mainly in the United States, Asia and Western Europe. The Company intends to build its market position through organic growth, primarily based on further development of its technology.

Due to a number of factors, the Company is unable to guarantee in full that its business development model will work. The Company's future in the broadly understood printed electronics market depends on its ability to create and implement a successful long-term development strategy and to continue to develop its technology. The risk of making bad decisions resulting from improper assessment of the situation or the Company's inability to adapt to changing market conditions, incorrect strategic assumptions, including in relation to the developed technology and the adopted commercialization plan and the degree of demand from potential clients, may mean that the business development model will not be effective and the future financial results might be lower than currently expected.

# 4.5.2.5. RISK RELATED TO THE DIFFICULTY WITH ACQUIRING EXPERIENCED AND SPECIALIZED EMPLOYEES

The high level of technological advancement of the Company's research leads to a constant increase in the requirements regarding skills and experience of employees. Next to technology, the engineering and scientific staff is the Company's most valuable asset. The pace and quality of the Company's R&D is directly related to the skills of specialists who form the R&D team. The Company employs engineers from the fields of chemistry, physics, electronics, mechanics, material engineering and numerical simulations. Nearly in all these fields, the number of specialists available for hiring is not high. As regards acquisition of the best specialists, the Company competes with both local and foreign companies.

As the Company expands the size of its operations, this factor may be of particular importance in the future as it might limit the development potential. Difficulties in sourcing employees may delay work or force the Company to abandon certain projects.

### 4.5.2.6. RISK OF LOSING KEY TEAM MEMBERS

The Company's activity is based on a narrow team of people with relevant know-how who pool competencies in engineering and technical, financial management and strategic Management of the Company. For this reason, losing key people may adversely affect the Company's further business, its financial, property and economic condition as well as its development prospects as it may impair the Company's potential to sell its products, develop its technology, win new contracts and properly manage already existing contracts.

Most of the Company's personnel are people employed in operational roles. They do tasks which require expertise, skill and education. The Company is exposed to the risk of losing some of its operational staff, which might weaken the organizational foundations of the Company's business. These situations might result in the Company's stability being undermined and force it to raise remuneration levels in order to retain employees. As a result, it may affect the Company's operating costs.

#### 4.5.2.7. RISK OF DEPENDENCE ON FUTURE COUNTERPARTIES

Due to the stage of development of the Company (ahead of commercialization of its main product), as of the report date the Company has not identified any dependence on counterparties. However, there is a risk that the Company might become dependent on a singly counterparty after it has put its product on the market, especially in the early commercialization phase, when the Company will have to use the services of a limited number of counterparties. Similarly, given the specific nature of the Company's offer, this creates the risk of dependence on a single client, especially during the first phase of sales.

#### 4.5.2.8. RISK OF POTENTIAL DISCLOSURE OF CONFIDENTIAL INFORMATION ON TECHNOLOGY

Implementation of the Company's strategy depends, inter alia, on the fact that the holders of confidential information, particularly that concerning development and technological processes related to printing heads and nanoink, will keep the information secret. There is a risk that sensitive information will be divulged by persons connected with the Company, which may result in the information being used by competitors, despite the intellectual property protection measures used by the Company, including the patents obtained.

The indicated risk factor may have a negative impact on the Company's business, financial position, development prospects, results and share price.

#### 4.5.2.9. RISK OF INTELLECTUAL PROPERTY INFRINGEMENT

The Company operates in an area where regulations concerning industrial and intellectual property rights and their protection are of significant importance. At present, there are no proceedings under way regarding infringement of any industrial or intellectual property rights in which the Company would be involved.

The Company intends to conduct its business in such a way as not to infringe any third party rights in this respect. However, it can not be ruled out that third parties would bring claims against the Company regarding infringement of industrial and intellectual property rights by the Company. Even if unwarranted, such claims might adversely affect the schedule of the Company's strategy implementation, and the defense against such claims may involve significant costs, which may adversely impact the Company's financial results. In addition, during work on its own patent application, the Company has carefully reviewed the available literature and patents known at present. However, there is a risk of infringement of intellectual property rights related to patents that have been submitted but not disclosed.

Cooperation with external partners gives rise to similar risks. Formally unauthorized entities might attempt to use the intellectual property of XTPL by either violating or attempting to circumvent the patent application. The circumstances described above may have a material adverse effect on the Company's development prospects, results and financial position.

#### 4.5.2.10. RISK OF TECHNOLOGY SCALING

Due to the fact that the technology underlying the printing process developed by XTPL is based on highly innovative solutions, there is a risk that an increase in its use from laboratory to industrial scale might end up unsuccessfully.

This risk may materialize due to difficulties with obtaining technology parameters in industrial production that would be equally stable as those obtained in the laboratory. In addition, there is a risk that the technology developed may not be sufficiently effective for certain production processes in industry (e.g. due to a failure to achieve satisfactory production process efficiency).

### 4.5.2.11. RISK OF A FAILURE TO REACH THE TARGET CLIENTS AND ACHIEVE SALES PLANS

XTPL clients will include, in particular, large manufacturers of devices for the fabrication of electronics. They have long communication and decision-making channels. There is a risk that a proposition from XTPL, as a company with a short market history, will be assessed as not reliable enough. This may delay delivery of the Company's sales targets or indeed lead to a failure to acquire a targeted client or achieve expected revenues.

### 4.5.2.12. RISK OF EMERGENCE OF A COMPETITIVE TECHNOLOGICAL SOLUTION

New technological solutions that are in competition against XTPL are constantly being developed in the global technology market. A comparison of the parameters of the currently available solutions with the parameters achieved in the XTPL technology shows, in the Company's opinion, that competitive technologies offer solutions with weaker parameters and oftentimes higher production costs compared with what is expected to be achieved by the industrial XTPL solution. The Company has undertaken measures designed to cover its technology with extensive patent protection.

As at the report date, the Company's competitive risk can be described as minimal, as the developed solutions are less effective than those on which the Company is working at present. However, it is not possible to rule out the possibility that a more technologically advanced or more cost-effective solution might emerge in the market. There is also a risk that competitors might significantly increase their expenditures to promote available solutions. These risks may materially affect the Company's development outlook.

## 4.5.2.13. RISK OF LOSS OF FINANCIAL LIQUIDITY AND ACCESS TO FINANCING

As at the report date, the Company does not generate sales revenues, which results from its early stage of development. Sales revenues are expected to be generated as the technology being developed is commercialized. Implementation of the Company's business model and commencement of commercialization will be a gradual and cost-intensive process. Accordingly, on the one hand the ability to generate recurring sales revenues by the Company is deferred at this stage of its development, and on the other hand, the preparations for commercialization of the technology entails operating costs. As a result, at the present stage of its development the Company needs to resort to external financing.

There is a risk that the funds available to the Company will not be sufficient to fully carry out activities aimed at preparing products for sales and commencing their commercialization. A lack of funding for business growth may lead to delays in development and thus impair future financial results. As at the report date, the Company uses financing in the form of share issue proceeds, grants and subsidies.

The financing of the research phase is secured thanks to the subsidies obtained (including from the National Research and Development Centre [NCBR]) and the Company's equity (acquired in previous financing rounds). In accordance with the agreement with the NCBR, to obtain the financing the Company needs to submit a correctly completed payment application with a summary of expenses incurred. In addition, the NCBR is authorized to terminate the financing in the cases enumerated in the agreement, including when (i) the Issuer refuses to undergo or hinders inspections; (ii) the Issuer has made legal and organizational changes that jeopardize the performance of the agreement or fails to inform the NCBR of its intention to make such changes; (iii) the NCBR identifies gaps in the submitted documentation on the environmental impact of the project, and such gaps are not eliminated by a stated deadline; (iv) the beneficiary fails to comply with disclosure obligations during implementation and durability period of the project; (v) irregularities, listed directly in the agreement, occur in delivery of the project.

#### 4.5.2.14. RISK OF IMPLEMENTATION OF IN-HOUSE TECHNOLOGIES BY THE COMPANY'S POTENTIAL CLIENTS

The ultimate goal of the business model is commercialization of the Company's ultra-precise technology of printing a wide range of nanomaterials. This process will take place by means of the products developed by Company: the printing head and nanoink. The Company intends to provide clients from the printed electronics sector with comprehensive technological solutions: devices and nanoinks.

An important group of potential buyers of the technology developed by the Companies are global producers of electronic components (e.g. displays). There is a risk that these entities, which have sufficient technical and organizational resources, may develop their in-hose nanoprinting solutions, and consequently will not be interested in the product offered by the Company.

#### 4.5.2.15. RISK OF UNFORESEEN EVENTS

The Company is exposed to the risk of extraordinary events, such as technical failures (e.g. of electrical networks, either internal or external), natural disasters, acts of war, etc. These events might impair the effectiveness of or disrupt the Company's operations. In such circumstances, the Company may be exposed to unforeseen costs.

#### 4.5.2.16. HUMAN FACTOR RISK

In its production activity, the Company works with people employed under employment contracts and other civil law contracts. Actions performed by these persons as part of their work may lead to errors caused by improper performance of their duties. Such actions may be intentional or unintentional and may lead to disruptions and delays in the commercialization process.

# 4.5.2.17. RISK OF FAILURE OF THE EQUIPMENT USED IN THE COMPANY'S OPERATIONS

In its operations, the Company relies on properly working specialist equipment. There is a risk that in the event of a serious equipment failure which cannot be addressed immediately, the Company may be forced to temporarily suspend some or all of its activities until the failure is removed. Equipment failures may also lead to a loss of the data used for developing the Company's product. An interruption in business or loss of key data for a particular project may result in the Company being unable to perform its obligations under existing contracts or cause a loss of these contracts, which may adversely affect the Company's financial performance.

## 4.5.2.18. RISK OF INSUFFICIENT INSURANCE COVERAGE

The Company enters into insurance contracts in the course of its activity. However, it cannot be ruled out that insurance risks will materialize in the Company's activity that will go beyond the scope of insurance

coverage, or unforeseen events occur that are out of scope of the existing insurance policies. Such events may have an adverse impact on the Company's trading performance.

#### 4.5.2.19. RISK OF COURT AND ADMINISTRATIVE PROCEEDINGS

According to the available information, no court or administrative proceedings are pending against the Company that would have a significant impact on its operations. However, the Company's future sales activity will give rise to potential risks associated with possible customer claims in relation to the products sold. The Company also enters into commercial contracts with external entities whereby both parties are required to provide specified service/ consideration. This in turn gives rise to a risk of disputes and claims arising from such contracts. These disputes or claims may adversely affect the Company's reputation and, consequently, its financial results.

#### 4.5.2.20. RISK OF RELATED-PARTY TRANSACTIONS

The Company enters into transactions with its related parties. Where competent tax authorities question the methods of how the Company has determined market conditions for related-party transactions, this may have negative tax implications for the Company, potentially causing a material adverse effect on its business, financial position and results.

### 4.5.2.21. RISK OF INTELLECTUAL PROPERTY RIGHTS AND APPLICATION PATENTS

The Company's technology may be the basis for other entities to develop derivative or related technologies. There is a risk that such entities will decide to submit application patents based on the Company's technology. As a result, the Company, as the holder of the underlying patent, will have to cooperate with a third party, as the application patent holder, to ensure commercial implementation of a particular technology. In terms of intellectual property rights, the Company uses works created by persons employed under employment contracts.

#### 4.5.2.22. RISK OF JDAS

Due to the nature of its operations, the Company may use JDAs (joint development agreements) for joint development of a selected group of products. Under JDAs, parties undertake to cooperate to develop a patentable invention for its subsequent commercialization. Such agreements lay down: (i) the division of roles and responsibilities between the parties; (ii) project management rules and dispute resolution procedures; (iii) the rules for using research facilities and jointly developed intellectual property; (iv) filing and and dealing with patent applications. JDAs may be entered into between the Company and external partners. Under JDAs, the Company, together with its partners, will implement development projects to work out new solutions for their commercialization. The conclusion of JDAs by the Issuer is aimed at acquiring a partner (a future counterparty) to work on the product to ensure the implemented solutions match the partner's expectations. Usually, JDAs are limited to co-financing by external partners of adaptation work in relation to selected products and services that will be available to the partner, with certain preference features.

# 4.6. FINANCES OF XTPL S.A.

### 4.6.1. KEY ECONOMIC AND FINANCIAL FIGURES

FIGURES IN PLN THOUSAND	1 January-31 December 2018
Net revenue from sales	2,267
Profit (loss) on sales	-809
Profit (loss) before tax	-7,243
Profit (loss) after tax	-7,209
Selling costs and general and administrative expenses	9,511
EBITDA	-6,712
Depreciation/amortization	531
Net cash flows from operating activities	-6,797
Net cash flows from investing activities	-2,758
Net cash flows from financing activities	8,902
Owner's equity	8,938
Non-current assets	3,935
Current assets	6,038
Short-term liabilities	1,031
Long-term liabilities	1
Cash and cash equivalents	5,537
Short-term receivables	486
Long-term receivables	233

# 4.6.2. CURRENT AND ANTICIPATED FINANCIAL POSITION

The Management Board evaluates the current situation of the Company as stable. At present, the Company finances its activity from two sources:

- a) share issue proceeds
- b) grants

Throughout 2018, and until the date of publication of this report, the Company performed all its obligations in a timely manner.

The future financial position will depend primarily on two factors:

a) expected cash flows related to the commercialization of the technology developed.

In 2018, the Company significantly intensified its business development activities. The target business model is to provide the electronics sector with nanoprinting equipment: printing heads (one-off sale) and their compatible nanoinks (recurring sales). In the first phase of cooperation with customers interested in implementing the Issuer's technology for production, a JDA (joint development agreement) may be signed, aimed at joint development of technology and its optimization to a selected application field or specific conditions of a particular client. JDAs usually provide for a significant level of cost co-financing by the partner

and a division of work into phases (with a budget assigned to each phase – financing is activated only after a specified milestone has been reached; an advance payment is often made before a particular phase is commenced).

Where ready-made solutions (printing heads, inks) are sold, the order is often commenced following payment of an advance towards a major part of the price. Other payments are made before and after delivery.

b) Expected cash flows related to the issue of shares

Due to the relatively early stage of market commercialization of the developed technology, in 2019, the Company will need cash flows from financing activities to fund its operations. The Management Board expects to obtain these cash flows from the issue of shares or the issue of debt instruments, or both.

#### 4.6.3. UNUSUAL EVENTS AND FACTORS THAT AFFECT PERFORMANCE

As at 31 December 2018 no unusual events or factors that affect performance have occurred.

# 4.7. BANK AND OTHER LOANS

#### 4.7.1. INFORMATION ON SIGNED AND TERMINATED LOAN AGREEMENTS

As at 31 December 2018, the Company did not use (or terminate) any loan agreements. On 4 April 2018, the Company entered into PLN 300 thousand overdraft agreement No. S0702427/01/00 with Santander Bank Polska S.A. (expiring on 25 March 2020) – the overdraft has not been used since the agreement was signed.

#### 4.7.2. INFORMATION ON LOANS GRANTED

On 19 January 2018, in accordance with the agreement of 16 January 2018, XTPL S.A. granted a loan to TPL Sp. z o.o.

Loans amount: PLN 200 thousand Maturity date: 30 June 2021; Annual interest rate: 10%; Security: blank promissory note.

TPL Sp. z o.o. is a related party and at the same time the administrator of the shares issued for the purpose of an incentive program addressed to the Issuer's employees and collaborators.

After the balance sheet date, on 1 February 2019, the Company entered into a framework agreement with XTPL INC, a newly formed entity based in the state of Delaware, United States, in which the Company acquired shares on 31 January 2019, providing for the issue of loans.

Loan amount: maximum limit of USD 500 thousand;

Maturity date: 31 December 2025;

Annual interest rate: 9%;

Three loan tranches were disbursed by the date of publication of this report:

12 February 2019: USD 260 thousand 12 March 2019: USD 62.5 thousand; 4 April 2019: USD 60 thousand.

#### 4.7.3. GUARANTEES

Contingent liabilities granted by the Company were in the form of promissory notes together with promissory note declarations to secure the contracts for co-financing projects financed by the EU:

- 1. Agreement No. POIR.01.01.01-00-1690/15-00 a promissory note for 100% of co-financing plus interest, i.e. PLN 9.846,969.14 plus interest.
- 2. Agreement No. POIR.02.03.04-02-0001/16-00 a promissory note for 100% of co-financing plus interest, i.e. PLN 387,100.00 plus interest.
- 3. Agreement No. GO\_GLOBAL.PL(II)-0011/16 a promissory note for 200% of co-financing plus interest, i.e. PLN 132,783.81 plus interest.
- 4. Agreement No. UDA-POIR.03.01.05-02-0003/17-00 a blank promissory note with a "not to order" clause and a signature notarized or submitted in the presence of a person authorized by an intermediary institution together with a promissory note declaration.
- 5. Agreement No. RPDS.01.02.02-02-0014/17 a promissory note for 100% co-financing (i.e. PLN 2,457,548.44) plus interest as for tax arrears, and all expenses relating to actions aimed at recovery improperly used financing.

In addition, the Company granted a conditional obligation under lease agreement No. 0360032016/ KR/246634 in the form of a blank promissory note with a promissory note declaration ZAB/297457/17/86262291.

The Company granted a conditional commitment (blank promissory note) to secure its obligations in respect of the overdraft agreement signed on 4 April 2018.

4.7.4. DIFFERENCES BETWEEN FORECASTS AND THE RESULTS PRESENTED IN THE ANNUAL REPORT Not applicable. The Issuer has not decided to publish financial forecasts.

## 4.7.5. ASSESSMENT OF FINANCIAL RESOURCES MANAGEMENT

As at 31 December 2018:

- the ratio of current assets to current liabilities (current liquidity ratio) was 5.85;
- current assets amounted to PLN 6,038 thousand;
- short-term liabilities were 1,032 thousand.

With such a structure, in 2018, the Company faced no material risks with regard to liquidity and timely payment of its obligations.

In order to finance its operations, in the reporting period, the Company acquired PLN 8,931 thousand by issuing shares taken up by new investors (private placement).

In addition, in 2018, the Company obtained PLN 2,247 thousand in the form of reimbursement of expenses under three grant programs.

In the financial year, the Company had an active overdraft agreement providing for a limit of PLN 300 thousand.

# 4.7.6. ASSESSMENT OF INVESTMENT CAPACITY

According to the strategy of further development of the Company adopted by the Management Board, in the coming years significant investment expenditures will be incurred for the continuation of R&D related primarily to the opening of subsequent application fields. The Company expects that the development strategy will be primarily funded with proceeds from new share issues, cash flows from technology commercialization in the first two application fields, and, to a lesser extent, EU and national grants. In addition, the Company might potentially use co-financing for its capital expenditures by a counterparty (under

a JDA). Where its technology is contracted and commercialized, the Company will also consider debt financing for its projects. When assessing the risk attached to the above model of financing investment plans, the Management Board is guided by the potential of securing financial resources.

#### 4.7.7. GRANTS

In the reporting year, the Company implemented three projects co-financed from public funds:

"Development of demonstration prototypes of a laboratory printer with compatible nanoink formulas
towards commercialization and marketing of ultra-thin conductive line technology for use in printed
electronics" – a project carried out under co-financing agreement No. RPDS.01.02.02-02-0014/17
of 13.12.2018 with the intermediate body Dolnośląska Instytucja Pośrednicząca.

Project duration: 06.03.2017 - 29.12.2018

Project value: PLN 4,508,627.22 Eligible costs: PLN 4,095,914.07 Funding: PLN 2,457,548.44

The purpose of the project is to develop four demonstration prototypes of a laboratory printer with appropriate nanoink formulas and to carry out the first implementations at potential customers as part of beta testing.

The project was completed as planned.

2. "Developing an innovative technological process for the production of a new generation of TCF layers for use in displays and thin film photovoltaic cells", a project carried out under co-financing agreement No. POIR.01.01-00- 1690/15 of 01.12.2016 with the National Center for Research and Development.

Project duration: 01.04.2016-31.08.2019r

Project value: PLN 12,906,248.52 Eligible costs: PLN 12,906,248.52 Funding: PLN 9,270,570.39

The purpose of the project is to develop a technology for the fabrication of transparent conducting films (TCFs). Transparent electrodes are used in thin-film solar cells and in LCDs.

3. "Filing a PCT patent application for a method of manufacturing ultra-fine conductive metallic lines" – a project carried out under agreement No. POIR.02.03.04-02- 0001/16 of 15.11.2016 with the Polish Agency for Enterprise Development.

Project duration: 18.01.2018-31.03.2019

Project value: PLN 881,610.00 Eligible costs: PLN 774,200.00

Funding: PLN 387,100.00

The purpose of the project is to obtain industrial property protection for the globally innovative method of manufacturing ultra-thin conductive metallic lines. The method enables the fabrication of TCFs.

# 4.7.8. FINANCIAL INSTRUMENTS

Fair value of financial instruments that the Company held as at 31 December 2018 was not different from the values presented in the financial statements for the respective years as a potential discount effect is not material in relation to short-term financial instruments. In addition, the instruments relate to the transactions concluded on market terms.

# 4.7.9. SHARE ISSUES AND USE OF SHARE ISSUE PROCEEDS

In 2018, two share issues took place:

In August 2018 (amendments to the Articles of Association were registered on 18 October 2018) – issue of series N shares for ACATIS Datini Valueflex Fonds fund – proceeds: PLN 4,418,000.

In September 2018 (amendments to the Articles of Association were registered on 8 October 2018) – issue of series O shares for Heidelberger Beteiligungsholding AG fund – proceeds: PLN 4,512,600.

The purpose of the issue was to finance:

- the Issuer's business development activities in the US market;
- strengthening the patent position.

By the date of publication date of the report, the share issue proceeds had been used as follows:

ITEM	Amount (PLN '000)	
financing the costs related to the formation of the Company's US-based firm	22	
financing operating costs related to the Company's US operations and remuneration for the US employees	2,135	
financing other costs related to activities in the US market	241	
legal and specialist services related to patents	458	
official fees related to the patent process	20	
other fees related to the patent process	41	

# 4.8. ACHIEVEMENTS IN RESEARCH AND DEVELOPMENT

The Issuer's interdisciplinary research and development team conducts intensive work aimed at optimizing and adapting its solutions both in terms of validation of the XTPL technology, which opens the door to negotiations with potential partners, and in terms of satisfying specific implementation needs in a given market sector.

# EXTENDING THE PRINTING CAPABILITY TO INCLUDE SMART GLASS AND ADVANCED OPTICAL SURFACES

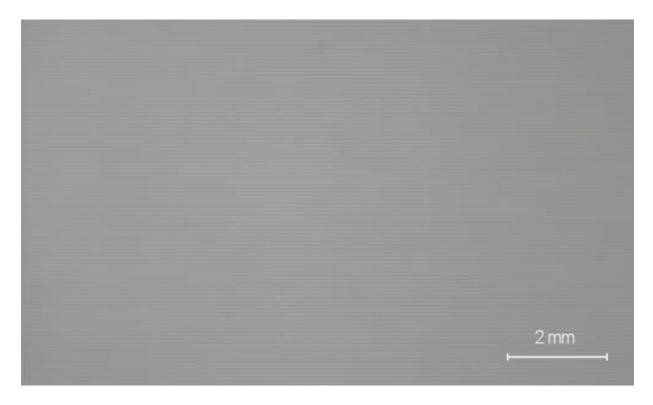
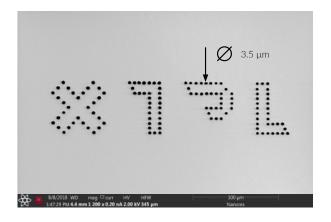


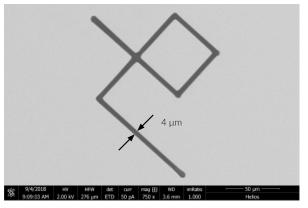
Fig. 17 Photomicrograph of silver parallel lines printed on ITO coated glass

The Issuer's laboratories have performed extensive tests of printing to be applied to smart glass and advanced optical surfaces. Application of the XTPL technology in the smart glass sector requires the printing of conductive mesh on substrates coated with ITO to reduce the resistance and maintain proper optical transmission. To achieve optimal results, a specific ink formulation was prepared, suitable for printing on such substrates. Next, print parameters were developed in order to obtain the desired width and height of the paths and the defined print profile. In the next step, the ink formulation was modified to make it resistant to the process conditions dictated by the potential partner. Conductive mesh was printed on the substrates from potential clients. Already two test phases were performed using these samplings, including the integration of samplings for the further process of producing electrochromic coatings. The application areas of the XTPL technology have also been extended to include applications on advanced optical surfaces. Test printing of conductive lines with a specific width on the lenses provided by the potential client was carried out, which confirmed the technological capabilities of the Issuer's unique process.

# ACHIEVING A HIGH LEVEL OF DEPOSITION PRECISION: PRINTING VARIOUS PATTERNS – E.G. SINGLE MICRODOTS OF 3 $\mu m$ IN DIAMETER

The XTPL ultra-precise deposition technology not only allows the deposition of linear structures. It can also be used to for depositing arbitrary shapes, including designed spots or microdots. The material that can be deposited does not have to contain metallic nanoparticles. For example, microdots (3.5  $\mu$ m in diameter on average) from the ink containing black dye were deposited on a silicon substrate. Similar microdots were deposited from quantum dots-based ink. Precise deposition of such materials is required for applications in the flat panel displays sector.

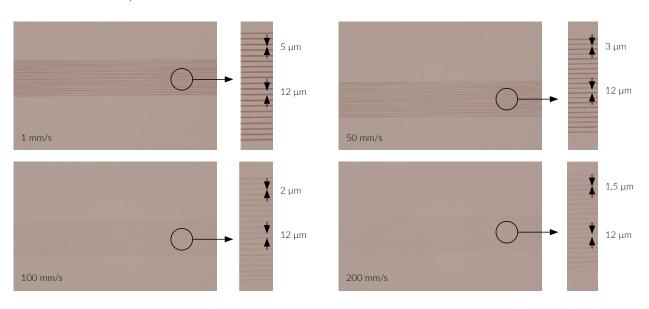




SEM image of the pattern of XTPL logo composed from microdots deposited on the glass. Dots currently obtained on the market usually have about 50 um, the minimum is 20 um – while XTPL currently achieves dots with diameter of 1 um, and plans to go even below this limit

SEM image of the printed trail with 4  $\mu m$  width

For the semiconductor sector, the Company also performed a hybrid deposition of material on a silicon-copper substrate obtained from a potential client. The deposited structure consists of several dozen parallel lines with a width of 6  $\mu$ m and a distance of 50  $\mu$ m between the lines, with previously designed breaks with a width of 300  $\mu$ m.



The image form optical microscope of the lines printed with the speed from the range of 1 to 200 mm/s. The width of the line changes from 5  $\mu$ m to 1.5  $\mu$ m. The interline distance is 12  $\mu$ m.

# EXTENDED TECHNOLOGICAL CAPABILITIES OF XTPL - APPLICATION IN THE OPEN DEFECTS REPAIR (ODR) SECTOR

In March 2018, a global manufacturers of display devices based in China sent the Issuer a technical specification with preliminary requirements for the technology it was looking for in the area of open defect repair. The XTPL application laboratory team reached all assumptions of the submitted specification and met the precise criteria set by the partner. Next, the Issuer met the technological requirements demonstrated during next stages of the proof-of-concept projects. These intensive actions were designed to ensure the best possible adaptation of the nanoprinting technology to the partner's industrial conditions. Finally, as part of a live demonstration, the partner could see the XTPL technology process used for open defect repair. The aim of the demonstration was to show the printing of samples with a specific specification, especially as regards geometrical, mechanical and electrical parameters previously defined by the client. The evaluation concerned the printout and the ink designed by XTPL specifically for this type of application. The Issuer's technological capabilities were assessed as very high by the Partner.

# PROOF-OF-CONCEPT (PoC) PROJECT FOR SEMICONDUCTORS (PRINTING ON SILICON WAFERS)

Advanced tests were carried out in XTPL laboratories to confirm the possibility of printing using the XTPL method on a semiconductor material. A specific pattern was printed on silicon wafers. Black ink was precisely deposited to ensure fast detection and imaging of samples. Two types of patterns were dispensed on silicon wafers to confirm the excellent control and precision of the XTPL process. 2 cm long solid lines were obtained with a distance of 50  $\mu$ m between individual lines. Also, intermittent lines were obtained, consisting of segments with pre-defined parameters: 1 mm printed, then a break of 0.1–1 mm. These lines were also printed at a spacing of 50  $\mu$ m between individual lines.

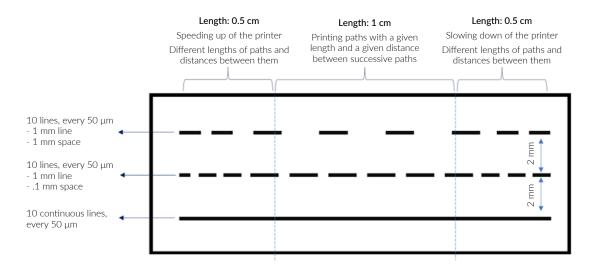


Fig. 20 A sketch of a set of solid and intermittent lines printed in one area.

#### PROOF-OF-CONCEPT (PoC) PROJECT FOR QUANTUM DOTS DEPOSITION

The Issuer's R&D team performed a printability test on an ink based on quantum dots. Quantum dots are light-emitting nanocrystals that absorb light of one wavelength and convert it to another. The growing demand for quantum dots is related to their increasing use in numerous applications. This results from their miniature size and the huge impact they have on the quality and energy efficiency of new generation devices. In addition, quantum dots allow less toxic or completely non-toxic substances to be used. Typically, those tiny crystals are implemented in high-quality display devices, but further applications – such as flat-panel screens, digital cameras, smartphones, gaming consoles and personal digital assistant devices - are more and more common. Higher efficiency and enhanced color quality are the advantages sought after both by manufacturers and users of quantum dots based displays. When the typical blue LED light is shone through a layer of quantum dots, the crystals break down the light and produce a richer white light that contains all the colors of the spectrum. This light then results in a better picture quality with darker blacks and more vibrant nonblue colors. It is worth underlining that quantum dot displays (QLED) use around 20-30% less power in comparison to LCDs of the same screen size. Furthermore, QLEDs emit up to 90% less blue color light than LCDs and therefore are much human-eye friendly. If the TV is edge-lit, quantum dot technology will be incorporated into tubes on the edge of the display where the light shines through. But in most cases quantum dots will be implemented on another layer of film just above the backlight. The XTPL additive manufacturing technology is to allow quantum dots material to be deposited with unparalleled precision, versatility and simplicity, reducing overall manufacturing cost. XTPL currently achieves microdots with diameter of 1 µm (which illustrates the unparalleled precision of the Issuer's solution), and plans to go even below this value. The tests in this regard were carried out on glass substrates (borosilicate glass). The dispensed solution contained quantum dots with an absorption band at a wavelength of 405 nm. To confirm the excellent control and precision of the XTPL process, the ink was dispensed in the form of two types of samples: a pattern of dots of  $\sim 15$   $\mu$ m in diameter disposed in a row, with a fixed number of layers, and a set of 10 dots of  $\sim$ 3 µm in diameter, where each dot dispensed had one layer more than the previous one (with a range from 1 to 10 layers). This experiment also demonstrated the increasing emission intensity as the number of layers increased. The dosed samples were imaged using a fluorescence microscope, as they were induced them with a wavelength of 405 nm. Quantum dots emitted a green light.

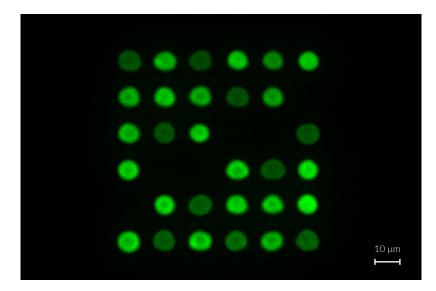


Fig. 18 Quantum dots deposited using the ultra-precise XTPL method.

#### PROOF-OF-CONCEPT (PoC) PROJECT FOR SECURITY PRINTING

The Issuer's laboratory printed colored markers on flexible films for applications in the security printing sector. The printing process was carried out on a flexible, transparent,  $125~\mu m$  thick PEN substrate. The dedicated material is a non-conductive ink containing red dyes and a conductive ink containing silver nanoparticles with dedicated solvents and additive components optimized for the XTPL nanoprinting process. The optimized parameters included: viscosity, drying time, adhesion to the substrate, surface tension and the height of the lines obtained. The proposed ink is dedicated for third level security printing on the excise tax bands.

RED DYE



CONDUCTIVE INK



#### SUCCESSFUL ATTEMPTS AT PRINTING COPPER, CARBON BASED AND GOLD PARTICLES

Due to the diversification of market needs in terms of nanomaterials printing, the Issuer's R&D team tested various inks used in other application fields. The XTPL method can be used for printing using: conductive inks, suspensions with nanoparticles, suspensions with semiconductors, insulating inks, resistors, inks with solvents or biological materials. To achieve the best results, XTPL developed its own nanoink formulation, mainly based on metallic particles (mainly Ag) and semiconductors (TiO2). The Company's laboratories carried out successful prints on a glass substrate using the ink based on copper nanoparticles, carbon particles and gold nanoparticles, which expands the possible application of the XTPL technology to include new market segments.

# NEW NANOINK FORMULATION AND NEW PROCESS PARAMETERS OBTAINED IN HIGH TEMPERATURE APPLICATIONS (ASSOCIATED WITH SMART GLASS AND PHOTOVOLTAICS SECTORS)

The XTPL team has designed and produced innovative ink formulations dedicated for smart glass applications. These formulations have been designed to ensure fulfilment of the specifications received from potential partners operating in this market sector.

Account was taken of mechanical and electrical conditions to be satisfied by the ink. However, the main criterion included subsequent stages of processing of the printed structures which were subjected to post-processing and had to be resistant to the conditions of this process. Each ink formulation created in XTPL laboratories is compatible with the printing process proposed by the Company for use in a particular sector and as such has properly selected, optimized parameters. The ink formulation for use in the smart glass sector is protected by an international patent application registered by the Issuer.

### 4.9. OTHER INFORMATION

### 4.9.1. OWN SHARES

Not applicable. In the period covered by the report, the Issuer did not acquire or held own shares.

#### 4.9.2. SIGNIFICANT LITIGATIONS

No significant judicial, arbitration or administrative proceedings are pending in relation to liabilities or receivables of the Issuer.

## 4.9.3. INFORMATION ON THE ISSUER'S ORGANIZATIONAL OR CAPITAL CONNECTIONS

Information on organizational and capital connections between the Issuer and other entities and determination of its main domestic and foreign investments, in particular securities, financial instruments, intangible assets and real estate, including equity investments made outside its group of connected entities, and a description of their financing methods

As at 31 December 2018, the Issuer did not have any equity investments in other companies or organizational connections with other entities.

On 31 January 2019, XTPL S.A. acquired shares in a newly formed company XTPL INC, in which it held 100% as at the report date.

In the period until the publication of the report, XTPL INC. was financed from loans granted by XTPL S.A., whose source of financing are proceeds from the issue of series N and O shares.

### 4.9.4. KEY DOMESTIC AND FOREIGN INVESTMENTS

In 2018, the Company incurred capital expenditures of PLN 2,602.8 thousand. The outlays in the reporting period included the purchase of licenses for the software used in the process of designing XTPL printers (PLN 101.9 thousand); purchase of computer sets for R&D employees (PLN 54.2 thousand); purchase of a server for XTPL printer constructors (PLN 29.8 thousand); purchase of specialized laboratory equipment (PLN 62.0 thousand); purchase of computer sets for office employees (PLN 27.8 thousand) and construction of XTPL printers prototypes (PLN 222.1 thousand). In addition, the Company incurred capital expenditures of PLN 2,105.9 thousand towards in-process development related to the laboratory printer.

Furthermore, after the balance sheet date, on 31 January 2019, XTPL S.A. acquired shares in XTPL INC, a newly formed entity based in the state of Delaware, United States.

### 4.9.4.1. NON-ARMS LENGTH TRANSACTIONS WITH RELATED ENTITIES

Not applicable. The Issuer has not entered into any transactions with its related party on non-commercial terms.

# 4.9.5. AGREEMENTS BETWEEN THE ISSUER AND ITS EXECUTIVE DIRECTORS PROVIDING FOR PAYMENT OF COMPENSATION

Not applicable. No agreements were made between the Issuer and its executive directors that would provide for payment of compensation in the event of their resignation or removal without a valid reason or if their removal is due to acquisition of the Issuer by another entity.

Where a Member of the Management Board is removed, the provisions of the Labor Code may apply, specifically Article 10(1) of the Act of 13 March 2003 on special rules for terminating employment relationships with employees for reasons not attributable to employees (Journal of Laws 2018, item 1969).

## 4.9.6. REMUNERATION, BONUSES OR BENEFITS FOR MEMBERS OF THE COMPANY'S BODIES

Members of the Management Board are entitled to a fixed monthly remuneration determined by the Supervisory Board. Decisions on granting a bonus to the Management Board Members are taken by the Supervisory Board.

Members of the Management Board are covered by the share-based incentive scheme (as described in point 4.9.10) adopted by the General Meeting on 24 April 2019. The number of shares or subscription warrants that may be allocated to individual the Management Board Members is determined by the Supervisory Board in the form of a resolution.

By the date of publication of the report, Management Board Members did not acquire any shares of the Company as part of the incentive scheme.

Members of the Supervisory Board are entitled to a fixed monthly remuneration determined by the General Meeting.

NAME	ROLE	REMUNERATION IN 2018	REMUNERATION IN 2017
Filip Granek	CEO	PLN 512.5 thousand	PLN 360.5 thousand
Maciej Adamczyk	Management Board Member	PLN 224.8 thousand	PLN 17.5 thousand
Sebastian Młodziński	CEO, Management Board Management Board Member	Not applicable	PLN 275.6 thousand
Wiesław Rozłucki	Chairman of the Supervisory Board	PLN 62.5 thousand	Not applicable
Bartosz Wojciechowski	Deputy Chairman of the Supervisory Board	PLN 8.5 thousand	PLN 0.0 thousand
Konrad Pankiewicz	Supervisory Board Member	PLN 14.0 thousand	PLN 0.0 thousand
Sebastian Młodziński	Supervisory Board Member	PLN 8.5 thousand	PLN 0.0 thousand
Piotr Lembas	Supervisory Board Member	PLN 7.1 thousand	Not applicable
Piotr Janczewski	Supervisory Board Member	PLN 0.0 thousand	PLN 0.0 thousand
Agnieszka Młodzinska-Granek	Supervisory Board Member	PLN 1,4 thousand	PLN 0.0 thousand

# 4.9.7. OBLIGATIONS ARISING FROM PENSIONS AND SIMILAR BENEFITS

The Issuer has no obligations resulting from pensions or similar benefits towards former management personnel members and has no liabilities incurred in connection with any such pensions.

# 4.9.8. SHARES HELD BY MEMBERS OF MANAGEMENT AND SUPERVISORY BODIES

In the case of corporations – determine the total number and nominal value of all shares of the Issuer and shares in the Issuer's affiliates held by Members of the Issuer's Management and Supervisory Bodies, separately for each person;

NAME	ROLE	NUMBER OF SHARES AS OF 31 DECEMBER 2018	NUMBER OF SHARES AS OF PUBLICATION OF THE REPORT
Filip Granek	CEO	303,000	303,288
Maciej Adamczyk	Management Board Member	0	0
Wiesław Rozłucki	Chairman of the Supervisory Board	0	0
Bartosz Wojciechowski	Deputy Chairman of the Supervisory Board	170	170
Konrad Pankiewicz	Supervisory Board Member	2,223	2,573
Sebastian Młodziński	Supervisory Board Member	300,000	299,852
Piotr Lembas	Supervisory Board Member	0	0
Leonarto Sp. z o.o. *	Konrad Pankiewicz has 100% stake in the entity	298,000	298,015
Piotr Lembas	Supervisory Board Member	0	0
Leonarto Sp. z o.o. *	Konrad Pankiewicz has 100% stake in the entity	298,000	298,015

#### 4.9.9. AGREEMENTS THAT IN THE FUTURE MIGHT AFFECT THE PROPORTION OF SHAREHOLDINGS

The Issuer is not aware of any agreements (including those signed after the balance sheet date) that in the future might affect the proportion of shareholdings of the existing shareholders.

### 4.9.10. CONTROL OF EMPLOYEE SHARE PROGRAMS

On 29 November 2017, the Company's Extraordinary General Meeting adopted resolution No. 4/11/2017 on the introduction of an incentive scheme for Members of the Company's Management Board, employees and collaborators of the Company and on adoption of the scheme's rules ("Incentive Scheme Resolution"). The Incentive Scheme Resolution introduced an incentive program at the Company, providing for the possibility of purchasing the Company's shares by its Management Board Members, employees and collaborators (the "Incentive Scheme"). The Incentive Scheme will be carried out in 2019–2021.

The Incentive Scheme Rules ("**Rules**") adopted under the Incentive Scheme Resolution provide for the following objectives of the Incentive Scheme:

- to create mechanisms that will motivate the Management Board and personnel of the Company to undertake activities that will lead to a rapid increase in the Company's revenues and profits and ensure the Company's long-term development, consequently increasing the value of the Company's shares;
- ${\mathord{\text{--}}}$  to ensure a stable composition of the Management Board and personnel of the Company;
- to maintain a high level of motivation of the Management Board and personnel of the Company.

# ("Scheme Objectives").

The Incentive Scheme is based on 140,020 (one hundred and forty thousand twenty) series L shares of the Company and based on other shares that might be issued in the future ("Shares") subject to a relevant resolution of the General Meeting on the issue of new shares for the purpose of the Incentive Scheme. Any shares that will not be allocated or taken up as part of the Incentive Scheme will be cancelled by the Company (after they have been acquired by the Company for cancellation).

Eligible participants of the Incentive Scheme are:

- the persons designated by the Supervisory Board who are Members of the Management Board on the day of adopting the Rules;

- the persons designated by the Management Board from amongst employees and collaborators of the Company;

According to the Rules, even before the proper Incentive Scheme is launched, the Supervisory Board and then the Management Board, may designate persons of particular merit to the development of the Company, who will be allocated, subject to a relevant resolution of the Supervisory Board, Shares from the pool of 30,000 Shares ("Pool 0"). Any Pool 0 Shares that have not been acquired or allocated will be available for acquisition by the Eligible Persons subject to the procedure provided for in the Rules.

Execution of the Incentive Scheme has been divided into 3 (three) settlement periods:

- the period covering the financial year 2018, ("Settlement Period 1");
- the period covering the financial year 2019, ("Settlement Period 2");
- the period covering the financial year 2020, ("Settlement Period 3");

At the beginning of each Settlement Period, a preliminary list of Eligible Persons in the particular Settlement Period ("Initial List") is adopted by the Supervisory Board. At the end of the Settlement Period, the Supervisory Board will adopt a resolution with a final annual list, i.e. a list of Eligible Persons to be allocated a conditional right to acquire a specified number of Shares ("Final Annual List"). The number of conditional rights to the Shares allocated to individual Eligible Persons in the Final Annual List depends on the following criteria:

with regard to allocation of 50% of the number of conditional rights assigned to a particular Grade – achievement by the Company of the annual financial objective set by the Supervisory Board ("Financial Objective"); whether or not the Financial Objective has been met is decided by a resolution of the Supervisory Board;

with regard to allocation of 50% of the number of conditional rights assigned to a particular Grade – achievement by the Eligible Person of a non-financial objective set for each Eligible Person each year, individually by a competent body ("Non-Financial Objective"). Achievement of the Non-Financial Objective is determined as follows (i) in the case of an Eligible Person being a Member of the Management Board – the Supervisory Board by way of a resolution; (ii) in the case of other Eligible Persons – the Management Board by way of a resolution.

The rights to Shares will be allocated to the Eligible Persons included in the Final Annual List provided that:

- they are put on the Final List (as indicated below);
- they receive an appropriate notification in accordance with the Rules.

Once the Final Annual List for Settlement Period 3 is adopted, the Supervisory Board may adopt an additional list of Eligible Persons whereby the Eligible Persons who have made a particular contribution to the Company's development will gain additional conditional rights to purchase the Shares ("Additional List").

The very fact that an Eligible Person is put on the Final Annual List does not mean that he or she has the right to purchase the Shares or may claim that a Share sales agreement be signed with him or her. Subject to the exceptions provided for in the Rules, acquisition of Shares by the Eligible Persons included in the Final Annual Lists will take place only after the completion of the Incentive Scheme and adoption of the final list (the "Final List"). The Final List can not be adopted earlier than on 1 July 2021. Once the Final List is adopted, the Supervisory Board sends a notice to the Eligible Persons included in the Final List stating, inter alia, the number of rights to purchase Shares allocated to the Eligible Persons and the date and place of signing the Share sales agreement ("Final Notice"). If the share sales agreement is signed before 30 June 2021, the Company will enter into a lock-up agreement with the Eligible Person (buyer) for a period of 18 (eighteen) months, but expiring not later than on 30 June 2021.

Exceptionally, if any of the following conditions are met:

on 31 December 2020, the Company is a public company and its average capitalization is more than PLN 500,000,000.00 (five hundred million zlotys); or

in the period from 1 July 2018 to 30 June 2021, any shareholder of the Company, other than a shareholder holding at least 10% of all shares in the Company on the day of adopting the Rules, will start to hold more than 50% of all shares in the Company, and the capitalization condition specified in point 16.2 of the Rules is met;

all Financial Objectives and all Non-Financial Objectives in all the Settlement Periods will be considered met. In such a case, the Supervisory Board will immediately adopt/ modify all Final Annual Lists (or adopts an Additional List, if applicable) and will adopt the Final List.

In 2018, the Company did not launch any standard systems of control of Employee Share Programs.

On 24 April 2019, an Extraordinary General Meeting was held, which adopted resolutions on (among other things):

- repealing the previous incentive scheme (adopted on 29 November 2017 and described above) and authorizing the Supervisory Board in relation to the Management Board Members, and the Management Board with respect to other scheme participants, to settle the scheme for 2018 and establish the rules for concluding agreements with scheme participants limiting the transferability of shares;
- creating a new incentive scheme (based on shares and subscription warrants, and consequently the issuance of new series P shares, conditional capital increase and the issuance of new series R shares and the issuance of series A subscription warrants).

The scheme will be based on two financial instruments:

- a) Shares (series L and P) with an issue price equal to the nominal price;
- b) Series A subscription warrants (authorizing their holders to take up series R shares at an average price weighted by the trading volume for the last month of listing on the regulated market operated by the Warsaw Stock Exchange before the day of adoption of Resolution No. 06/04/2019 of the Extraordinary General Meeting of 24 April 2019).

The number of subscription shares or warrants that may be allocated to eligible persons will result from a resolution of the Supervisory Board (in the case of Management Board Members) or a resolution of the Management Board (in the case of other eligible persons). Details of the incentive scheme will result from its rules to be adopted by the Management Board. As at the date of publication of the report, the Management Board had not adopted the rules yet. The content of the resolutions adopted by the General Meeting on 24 April is included in the appendix to the ESPI current report published after the General Meeting described above.

# 4.9.11. INFORMATION ABOUT THE AUDITOR

An agreement with the auditor (4AUDYT sp. z o.o.) was concluded on 9 January 2018 and concerns the audit of the financial statements for the period from 01-01-2017 to 31-12-2017 and the audit of the financial statements for the period from 01-01-2018 to 31-12-2018.

Remuneration of the audit firm for the audit of the financial statements for the financial year 2017 is PLN 8.000 net.

Remuneration of the audit firm for the audit of the financial statements for the financial year 2018 is PLN 11.000 net.

#### 4.9.12. REMUNERATION POLICY

The Issuer adopted its remuneration policy in January 2019, i.e. after the period covered by the report. The policy has not been changed since its adoption.

The functioning of the remuneration policy in 2019 will be assessed in the annual report for 2019.

Members of the Management Board are entitled to a fixed monthly remuneration determined by the Supervisory Board. Decisions on granting a bonus to the Management Board Members are taken by the Supervisory Board. Members of the Management Board may be covered by the incentive scheme adopted by the General Meeting on 24 April 2019. The number of shares or subscription warrants that may be allocated to individual the Management Board Members is determined by the Supervisory Board in the form of a resolution – details are described in point 4.9.10.

Key managers (i.e. persons in a director or an equivalent or a more senior position within the meaning of the remuneration policy) receive remuneration determined by the Management Board. Decisions on granting a bonus to key managers are taken by the Management Board.

Key managers may be covered by the incentive scheme adopted by the General Meeting on 24 April 2019.

The number of shares or subscription warrants that may be allocated to individual key managers is determined by the Management Board in the form of a resolution – details are described in point 4.9.10.

# Corporate Governance

2010 ANNUAL RETURN

### 5. CORPORATE GOVERNANCE

#### 5.1. GENERAL INFORMATION

In the financial year 2018, the Issuer was a Company listed in the NewConnect alternative trading system and was subject to the corporate governance principles specified in the Annex to Resolution No. 293/2010 of the Management Board of the Warsaw Stock Exchange of 31 March 2010, which is the consolidated text of the document "Best Practice of NewConnect-Listed Companies" available at https://newconnect.pl/dobre-praktyki

Since 20 February 2019, the Issuer's shares have listed on the regulated (parallel) market operated by the Warsaw Stock Exchange (GPW), so the Issuer has been subject to the corporate governance principles set out in the annex to Resolution No. 26/1413/2015 of the Council of the Warsaw Stock Exchange of 13 October 2015 – "Best Practice for GPW Listed Companies 2016". The set of corporate governance principles is publicly available on the website of the Warsaw Stock Exchange at https://www.gpw.pl/dobre-praktyki

## 5.2. EXEMPTIONS FROM APPLICATION OF THE CORPORATE GOVERNANCE PRINCIPLES APPLICABLE TO THE NEWCONNECT MARKET

Within respect to the "Best Practice of NewConnect Listed Companies", in the financial year 2018 the Issuer adhered to the principles set out in this document, except the following ones:

Principle 1 – the Company should operate a transparent and effective information policy, both using traditional methods and modern technologies that ensure speed, security and wide access to information. While using these methods to the fullest extent, the Company should ensure adequate communication with investors and analysts, enable the online broadcasting of General Meetings, record the course of the meeting and publish it on its website.

**Issuer's comment:** All the necessary information was available on the Issuer's website. The Issuer decided that due to technical reasons it is not possible to ensure broadcasting or registration of proceedings of the General Meeting;

Principle 5 – the Company should operate an information policy with a particular focus on the needs of individual investors. To this end, the Company, in addition to its corporate website, should use the investor relations section, dedicated to the Company, at www.GPWInfoStrefa.pl. – The Company has a full investor relations section as part of its own website.

**Issuer's comment:** The Issuer had a full investor relations section as part of its own website.

## 5.3. EXEMPTIONS FROM APPLICATION OF THE CORPORATE GOVERNANCE PRINCIPLES APPLICABLE TO THE REGULATED MARKET

Within respect to the "Best Practice of GPW Listed Companies 2016", as at the report date, the Issuer adhered to the principles set out in this document, except the following ones:

I.R.2. Where a company pursues sponsorship, charity or other similar activities, it should publish information about the relevant policy in its annual activity report.

The principle does not apply to the Company.

**Company's comment:** At the moment, the Company does not pursue any sponsorship, charity or other similar activities.

I.Z.1.10. financial projections, if the Company has decided to publish them, published at least in the last 5 years, including information about the degree of their implementation;

The principle does not apply to the Company.

Company's comment: At the moment, the Company has not decided to publish financial projections.

I.Z.1.15. Information about the Company's diversity policy applicable to the Company's Governing Bodies and key managers; the description should cover the following elements of the diversity policy: gender, education, age, professional experience, and specify the goals of the diversity policy and its implementation in the reporting period; where the Company has not drawn up and implemented a diversity policy, it should publish the explanation of its decision on its website;

The principle is not followed.

Company's comment: The Company does not have a formalized diversity policy. The Company employs people with appropriate qualifications and professional experience, without differentiating them by age or gender. When selecting candidates for Members of the Supervisory and Management Bodies, the Company's competent bodies follow the best interest of the Company and its shareholders, taking into account the candidates' qualifications, skills and performance. Decisions regarding appointment to the Management Board or the Supervisory Board are not motivated by gender. Therefore, the Issuer cannot ensure a balanced participation of men and women in management and supervisory positions.

I.Z.1.16. Information about the planned broadcast of a General Meeting, not later than 7 days before the date of the General Meeting;

The principle is not followed.

**Company's comment:** The principle is not followed by the Company due to the high cost of ensuring appropriate equipment and the technical resources needed to meet the obligations implied by this principle – such cost would be out of proportion to the potential benefits that might flow to shareholders. In this regard, the Company compiles with the applicable provisions of its Articles of Association and law, and operates an appropriate information policy.

I.Z.1.20. An audio or video recording of a General Meeting;

The principle is not followed.

**Company's comment:** The Issuer does not publish any audio or video recording of its General Meetings. In the opinion of the Issuer, proper performance of information obligations related to General Meetings, i.e. in particular the publication of current reports via the ESPI system and providing relevant information on the

Company's website, provides shareholders with full access to information on General Meetings. The decision not to follow the above rule is a cost avoidance measure. However, the Issuer declares that it will abide by this corporate governance principle in that it will publish on its website an audio record of its General Meetings provided that the Company's shareholders, including minority shareholders, (stock investors) so desire;

II.R.2. Decisions to elect Members of the Management Board or the Supervisory Board of a Company should ensure that the composition of these bodies is comprehensive and diverse among others in terms of gender, education, age and professional experience.

#### The principle is not followed.

Company's comment: The Company does not have a formalized diversity policy. The Company employs people with appropriate qualifications and professional experience, without differentiating them by age or gender. At present, only the men are Members of the Issuer's Bodies, but historically women also had functions on the Supervisory Board. When selecting candidates for Members of the Supervisory and Management Bodies, the Company's competent bodies follow the best interest of the Company and its shareholders, taking into account the candidates' qualifications, skills and performance. Decisions regarding appointment to the Management Board or the Supervisory Board are not motivated by gender. Therefore, the Issuer cannot ensure a balanced participation of men and women in Management and Supervisory positions.

II.Z.2. A Company's Management Board Members may sit on the Management Board or Supervisory Board of companies other than Members of its group subject to the approval of the Supervisory Board.

#### The principle is not followed.

Company's comment: The Articles of Association and the Company's internal documents do not impose information obligations on Management Board Members in this regard. Nevertheless, pursuant to Article 18 of the Issuer's Articles of Association, the Supervisory Board may remove or suspend a Management Board Member only for important reasons. An important reason is, inter alia, engaging – without the Supervisory Board's prior consent – in a business that is in competition against the Company, in particular by holding or purchasing shares in or joining a competitor as a partner or a member of its executive or non-executive bodies, or representing a competitor as its attorney (excluding subsidiaries as defined in the Code of Commercial Companies);

III.R.1. The Company's structure should include separate units responsible for the performance of tasks in individual systems or functions, unless the separation of such units is not justified by the size or type of the Company's activity.

#### The principle is not followed.

Company's comment: The Company's structure does not include a separate unit that would be responsible for risk management, internal audit and compliance. All tasks resulting related to those areas are performed directly by the Management Board. The existing structure ensures proper control in this respect. However, in the future the Company might consider setting up relevant separate organizational units, if it is justified by the size or type of business carried on by the Company.

III.Z.3. The independence rules defined in generally accepted international standards of the professional internal audit practice apply to the person heading the internal audit function and other persons responsible for such tasks.

#### The principle is not followed.

**Company's comment:** There is no person at the Company to manage the internal audit function as the Company has no formal unit responsible for internal audit.

IV.R.2. If justified by the structure of shareholders or expectations of shareholders notified to the Company, and if the Company is in a position to provide the technical infrastructure necessary for a General Meeting to proceed efficiently using electronic communication means, the Company should enable its shareholders to participate in a General Meeting using such means, in particular through:

- 1) real-life broadcast of the General Meeting;
- 2) real-time bilateral communication where shareholders may take the floor during a General Meeting from a location other than the General Meeting;
- 3) exercise of the right to vote during a General Meeting either in person or through a proxy.

#### The principle is not followed.

Company's comment: Application of the above recommendation may involve organizational, technical and legal risks that might lead to an attempt to challenge validity of the General Meetings held. In addition, adoption of this principle would expose the Company to additional costs connected with ensuring technical conditions for participation in the General Meeting. The rules for convening and holding General Meetings that arise from law and the Terms of Reference of the General Meeting create sufficient possibilities for shareholders to participate in the General Meeting in person and use their rights in this respect, and the Company calls General Meetings by setting such days and times as to allow broad participation by shareholders. At the same time, shareholders may participate in the General Meeting by a proxy.

IV.Z.2. If justified by the structure of shareholders, companies should ensure publicly available real-time broadcasts of General Meetings.

#### The principle is not followed.

Company's comment: The current ownership structure of the Company does not justify the need to ensure publicly available real-time broadcasts of General Meetings. The principle is not followed by the Company also due to the high cost of ensuring appropriate equipment and the technical resources needed to meet the obligations implied by this principle – such cost would be out of proportion to the potential benefits that might flow to shareholders. In this regard, the Company compiles with the applicable provisions of its Articles of Association and law, and operates an appropriate information policy. This ensures proper and effective exercise of rights from shares, and sufficiently safeguards the interests of all shareholders, including minority shareholders.

IV.Z.3. Presence of representatives of the media should be allowed at General Meetings.

#### The principle is not followed.

Company's comment: The Company might allow presence of media representatives at General Meetings subject to prior authorisation. Irrespective of the above, in the case of any questions regarding General Meetings addressed to the Company by media representatives, the Company immediately provides relevant answers. The Company fulfils the information obligations imposed on listed companies in accordance with the applicable laws, comprehensively and reliably, and operates an intensive communication policy;.

IV.Z.12. The Management Board should present to participants of an ordinary general meeting the financial results of the Company and other relevant information contained in the financial statements to be approved by the General Meeting.

#### The principle is not followed.

Company's comment: Due to the fact that the Company's financial results and other key details contained in the financial statements, subject to approval by the General Meeting, are available on the Issuer's website from the day of their publication through the ESPI system, the Management Board will not present those data in detail during General Meetings. Instead, the Management Board will answer shareholders' questions;

VI.Z.2. To tie the remuneration of Members of the Management Board and key managers to the Company's long-term business and financial goals, the period between the allocation of options or other instruments linked to the Company's shares under the incentive scheme and their exercisability should be no less than two years.

The principle is not followed.

Company's comment: The incentive scheme currently in force at the Company is not based on options or other financial instruments linked to the Company's shares. In the Company's situation, achieving long-term business, economic and financial objectives of the Company by implementing incentive schemes based on options or other financial instruments linked to the Company's shares does not require the Company prior introduction of a fixed period between the allocation of such instruments and their exercisability. Accordingly, if an incentive scheme based on options or other financial instruments is introduced at the Company, the above principle will not be followed.

#### 5.4. INTERNAL CONTROL AND RISK MANAGEMENT

Due to its size, the Company does not have a separate internal audit unit. Internal audit tasks have been divided and allocated to the bodies and functions indicated below. Effective functioning of the system of internal control over financial reporting is the direct responsibility of the Company's Management Board. In 2018, the Company had a financial department and a legal department whose respective roles was to support the internal control process, among other things. In addition, some internal control tasks (testing the Company's operations for compliance with law) are performed by the Head of the Project Management Office. Keeping the books of account was entrusted to a third party which has appropriate qualifications, knowledge and experience. Responsibility for performance of duties relating to accounting rests on Members of the Management Board of the Company (they are also responsible for exercising oversight over delegation of the account-keeping to a third party). In addition, Members of the Management Board and Members of the Supervisory Board are obliged to ensure that the financial statements meet the requirements of the Accounting Act. Members of the Management Board and Members of the Supervisory Board are jointly and severally liable to the Company for any damage caused by their acts and omissions in relation to the above responsibilities.

The Company's internal control system mainly includes the following areas:

- controlling and management accounting
- accounting, including financial reporting
- forecasting and financial analyses.

As part of the internal control and risk management system there are organizational solutions and corporate standards/ procedures in place that support effectiveness of the control over financial reporting and identification/ elimination of risk factors in this area. The following measures should be noted:

- harmonized accounting policies, financial reporting and accounting procedures;
- application of a standardized financial reporting model for external and internal purposes operational management;
- division of roles and responsibilities of individual departments (including the external accounting function), and the middle and upper management;
- regular and formalized process of reviewing and updating the budget assumptions and financial projections;
- having the financial accounts reviewed and audited by an independent auditor.

The Company keeps abreast of the legal developments relating to the stock exchange reporting and makes sure it is prepared for their implementation comfortably in advance.

Vertical functional control is performed daily by the managers of individual departments in relation to the employees and processes within their areas of responsibility. All the Company's cost-related documents are confirmed by the person responsible for the purchase (expert approval) and verified by the Financial Manager (horizontal check, including the check for compliance of the expenditure with the budget). If the costs are related to a public grant to a project, the documents are additionally verified by the Head of the Project Management Office. Once verified, the documents are subject to final approval by the Management Board. Any documents not approved according to the above procedure can not be booked or sent for payment. The final (additional) stage of the ongoing verification is the formal check of accounting documents carried out by third party responsible for account-keeping. This is carried out using Standard ERP IT system, which guarantees high efficiency of the process both in terms of internal control and work organization. This system prevents, for example, the posting and payment of documents not approved in the above procedure.

Each month, upon closing on the books of account, a management report is put together with details on the key financials. Each month, the Management Board and unit managers analyze and discuss the Company's performance.

Each quarter, an interim financial report is drawn up in cooperation with the third party responsible for account-keeping. Next, the report is verified by the financial manager of the Company (at the first stage) and by the Management Board Member responsible for finance (at the second stage). Furthermore, each quarter, the Company's Management Board verifies the reliability and currency of the annual budgets and short-term projections. Where appropriate, the Management Board liaises with the management of individual departments to review and update the budget assumptions.

As required by law, the Company has its financial accounts audited (reviewed) by an independent auditor selected by the Supervisory Board. In its audit of the Company's financial statements for 2018, the independent auditor assessed the risk of material misstatement of the financial statements. When assessing this risk, the auditor took into account the Company's internal control over preparation and reliable presentation of the financial statements by the Company.

#### 5.5. SHAREHOLDING STRUCTURE

As at 31 December 2018, the shareholding structure was as follows:

REF.	SHAREHOLDER	NUMBER OF SHARES HELD	% OF ALL SHARES	NUMBER OF VOTES	% OF ALL VOTES
1.	Filip Granek	303,000	16.99%	303,000	16.99%
2.	Sebastian Młodziński	300,000	16.82%	300,000	16.82%
3.	Leonarto Sp. z o.o. *	298,000	16.71%	298,000	16.71%
4.	Heidelberger Beteiligungsholding AG	192,371	10.79%	192,371	10.79%
5.	TPL Sp. z o.o. **	140,020	7.85%	140,020	7.85%
6.	ACATIS Investment Kapitalverwaltungsgesellschaft mbH on behalf of ACATIS Datini Valueflex Fonds	127,000	7.12%	127,000	7.12%
7.	Stefan Twardak	103,081	5.78%	103,081	5.78%
8.	Konrad Pankiewicz*	2,223	0.12%	2,223	0.12%
9.	Others	317,925	17.82%	317,925	17.82%
	TOTAL	1,783,620	100.00%	1,783,620	100.00%

 $<sup>^{*}</sup>$  Konrad Pankiewicz, Member of the Issuer's Supervisory Board, is the sole shareholder and CEO of Leonarto Sp. z o.o. Konrad Pankiewicz, together with a related entity, owns 300,223 shares of the Company, constituting 16.83% of its share capital

As at the date of publication of the report, shareholding structure was as follows:

REF.	SHAREHOLDER	NUMBER OF SHARES HELD	% OF ALL SHARES	NUMBER OF VOTES	% OF ALL VOTES
1.	Filip Granek	303,288	17.00%	303,288	17.00%
2.	Sebastian Młodziński	299,852	16.81%	299,852	16.81%
3.	Leonarto Sp. z o.o. *	298,015	16.71%	298,015	16.71%
4.	Heidelberger Beteiligungsholding AG	192,371	10.79%	192,371	10.79%
5.	TPL Sp. z o.o. **	140,020	7.85%	140,020	7.85%
6.	ACATIS Investment Kapitalverwaltungsgesellschaft mbH on behalf of ACATIS Datini Valueflex Fonds	127,000	7.12%	127,000	7.12%
7.	Stefan Twardak	103,081	5.78%	103,081	5.78%
8.	Konrad Pankiewicz*	2,573	0.14%	2,573	0.14%
9.	Others	317,420	17.80%	317,420	17.80%
	TOTAL	1,783,620	100.00%	1,783,620	100.00%

<sup>\*</sup> Konrad Pankiewicz, Member of the Issuer's Supervisory Board, is the sole shareholder and CEO of Leonarto Sp. z o.o. Konrad Pankiewicz, together with a related entity, owns 300,588 shares of the Company, constituting 16.85% of its share capital

<sup>\*\*</sup> TPL Sp. z o.o. holds series L shares issued for the purpose of an employee share program. The shareholders of TPL Sp. z o.o. are Filip Granek, the Issuer's CEO (34% of shares), Sebastian Młodziński, Member of the Issuer's Supervisory Board (33%) and Adriana Pankiewicz, wife of Konrad Pankiewicz, Mmember of the Issuer's Supervisory Board (33%).

<sup>\*\*</sup> TPL Sp. z o.o. holds series L shares issued for the purpose of an employee share program. The shareholders of TPL Sp. z o.o. are Filip Granek, the Issuer's CEO (34% of shares), Sebastian Młodziński, Member of the Issuer's Management Board (33%) and Adriana Pankiewicz, wife of Konrad Pankiewicz, Member of the Issuer's Supervisory Board (33%).

#### 5.6. SPECIAL CONTROL RIGHTS

Not applicable. The Issuer has not any issued securities that would give special control rights.

#### 5.7. RESTRICTIONS OF VOTING RIGHTS

The Issuer's Articles of Association do not provide for any restrictions on the exercise of voting rights attached to shares.

#### 5.8. RESTRICTIONS AS TO THE TRANSFER OF DEBT SECURITIES

The Issuer's Articles of Association do not provide for any restrictions as to the transfer of ownership of the rights attached to shares or other securities of the Issuer.

#### 5.9. APPOINTMENT OF MEMBERS OF MANAGEMENT BODIES

The Management Board Members are appointed and removed by the Supervisory Board (§ 20 of the Articles of Association).

The Management Board runs the Issuer's affairs and represents the Issuer.

The powers the Management Board result from applicable law (including the Polish Commercial Companies Code) and the Issuer's Articles of Association. The powers of the Management Board include all matters not reserved for the General Meeting or the Supervisory Board (§ 21(1) of the Articles of Association).

#### 5.10. AMENDMENTS TO THE ARTICLES OF ASSOCIATION

Any amendments to the Issuer's Articles of Association require a resolution by the General Meeting adopted by a majority of three quarters of votes, and need to be recorded in the register of entrepreneurs of the National Court Register.

According to Article 446 § 1 of the Commercial Companies Code, the Management Board may decide to amend the Articles of Association in connection with an increase in the Issuer's share capital, within the authorized capital.

In the financial year of 2018, three amendments to the Issuer's Articles of Association were made. The amendments were registered as follows:

- on 29 May 2018 in connection with the planned transition from ASO NewConnect to the regulated market;
- on 18 October 2018 in connection with the issue of series N shares;
- on 8 November 2018 in connection with the issue of series O shares.

#### 5.11. BRIEF OF THE GENERAL MEETING

The brief of the General Meeting of Shareholders and the basic rights and obligations of shareholders in terms of participation in the General Meeting are set out in the Commercial Companies Code, the Articles of Association and the Terms of Reference of the General Meeting available at: https://ir.xtpl.com/pl/materialy/korporacyjne/

Detailed powers of the General Meeting are indicated in Chapter III of the Articles of Association in the part relating to the General Meeting and in Article 393 et seg. of the Commercial Companies Code.

#### 5.12. SUPERVISORY BOARD AND COMMITTEES

#### **Supervisory Board**

The Supervisory Board consists of 5 to 7 Members. Members of the Supervisory Board are appointed and removed by the General Meeting. Members of the Supervisory Board are appointed for a joint, three-year term of office.

The Supervisory Board of the current term of office was appointed by resolution of the Annual General Meeting of Shareholders of XTPL S.A. of 30 June 2017.

As of 31 December 2018 and as of the date of the report, the Supervisory Board performed its duties in the following composition:

- Wiesław Rozłucki Chairman of the Supervisory Board an independent SB Member
- Bartosz Wojciechowski Deputy Chairman of the Supervisory Board
- Konrad Pankiewicz
- Sebastian Młodziński
- Piotr Lembas an independent SB Member

Changes in the Supervisory Board in 2018:

- on 16 April 2018, Wiesław Rozłucki was appointed to the Supervisory Board (following resignation of Piotr Janczewski);
- on 28 May 2018, Piotr Lembas was appointed to the Supervisory Board (following resignation of Agnieszka Młodzińska-Granek).

The brief of the Supervisory Board is determined by Polish Commercial Companies Code, the Articles of Association and the Terms of Reference of the Supervisory Board available at the Issuer's website at: https://ir.xtpl.com/pl/materialy/korporacyjne/

Detailed powers of the Supervisory Board are indicated in Chapter III of the Articles of Association in the part relating to the Supervisory Board and in Article 381 et seq. of the Commercial Companies Code.

#### Committees:

In addition to the audit committee described in point 5.14, no committees have been set up within the Issuer's Supervisory Board.

#### 5.13. MANAGEMENT BOARD

The Management Board consists of 1 to 5 Members. Members of the Management Board are appointed and removed by the Supervisory Board. Members of the Management Board are appointed for a joint, three-year term of office.

The Management Board of the current term of office was appointed by a resolution of the Supervisory Board of 24 April 2017.

As of 31 December 2018 and as of the date of the report, the Management Board performed its duties in the following composition:

- Filip Granek Management Board President
- Maciej Adamczyk Management Board Member

No changes in the Management Board took place in the financial year of 2018.

The brief of the Management Board is determined by Polish Commercial Companies Code and the Articles of Association available at the Issuer's website at: https://ir.xtpl.com/pl/materialy/korporacyjne/

Detailed powers of the Management Board are indicated in Chapter III of the Articles of Association in the part relating to the Management Board and in Article 368 et seq. of the Commercial Companies Code.

#### 5.14. AUDIT COMMITTEE

By resolution No. 1/06/2018 of 5 June 2018, pursuant to Article 128(1) of the Act on statutory auditors, audit firms and public oversight of 11 May 2017 ("Statutory Auditors Act"), Journal of Laws 2017, item 1089, the Supervisory Board set up an Audit Committee at the Company.

The brief of the Audit Committee is set out in the "Terms of Reference of the Audit Committee of XTPL S.A." adopted by the Supervisory Board by Resolution No. 5/06/2018 of 5 June 2018.

The Audit Committee consists of three Members. As of 31 December 2018 and as of the date of the report, the Audit Committee performed its duties in the following composition:

- Wiesław Rozłucki Chairman of the Audit Committee, independent Member of the Audit Committee of the Supervisory Board – independent SB Member.
- Sebastian Młodziński who has knowledge and skills in the Issuer's sector, gained in 2015–2017 when he was the President of the Issuer's Management Board and Member of the Issuer's Management Board.
- Piotr Lembas an independent Member of the Audit Committee, who has knowledge and skills in
  accounting; he holds a BA degree in Finance and Accounting at the Faculty of Management, Computer
  Science and Finance of the University of Economics in Wrocław; he also holds a master's degree in Master
  Studies in Finance CFA affiliate program. He holds the Chartered Financial Analyst (CFA) certificate. For
  nearly two years, he worked in the financial department of the Adiuvo Investments S.A. Group, where he
  supported the financial director in the preparation of financial statements for the purpose of fulfilment of
  the obligations of WSE listed entities.

In the financial year 2018, the auditor of the Issuer's financial statements provided the Issuer with permitted non-audit services:

• examination of historical financial information appended to the share prospectus.

The Audit Committee adopted the policy and procedure on selection of an audit firm to audit unconsolidated and consolidated financial statements, which is available on the Issuer's website at https://ir.xtpl.com/pl/materialy/korporacyjne/

When selecting an audit firm, the Supervisory Board acts on the basis of the below criteria and recommendations from the Audit Committee. In the case of selection of an audit firm to conduct a statutory audit for the Issuer, except in the situation when the audit engagement is extended, the Audit Committee presents a recommendation to the Supervisory Board containing in particular:

- at least two possible choices for the audit engagement and a duly justified preference for one of them indicated to the Audit Committee;
- a statement that the recommendation is free from any undue influence by third parties;
- a statement that the Company has not entered into any agreements containing clauses referred to in Article 66(5a) of the Accounting Act.

The recommendation of the Audit Committee is made following a tender procedure, using the procedure described in detail in the said policy.

The Issuer's Supervisory Board selected an auditor to audit the Company's 2018 financial statements by resolution of 22 December 2017, i.e. before the Issuer's shares were admitted to trading on the regulated market and before the Issuer obtained the status of a public interest entity.

The Audit Committee adopted the policy on provision by the audit firm which conducts an audit, by its affiliates and by Members of its network, of permitted non-audit services. The policy is available on the Issuer's website at https://ir.xtpl.com/pl/materialy/korporacyjne/

The policy takes into account provisions of Regulation (EU) No 537/2014 of the European Parliament and of the Council of 16 April 2014 on specific requirements regarding statutory audit of public-interest entities and repealing Commission Decision 2005/909/EC, and the Act of 11 May 2017 on statutory auditors, audit firms and public oversight.

The powers and duties of the Audit Committee provided for by law are performed by the Issuer's Audit Committee as of 20 February 2019 – i.e. from the date when the Issuer's shares were admitted to trading on the regulated market and when the Issuer obtained the status of a public interest entity.

In the financial year 2018, the Audit Committee held one meeting (on 5 June 2018), at which the Audit Committee's policies and procedures described below were adopted.

Main assumptions of the policies adopted by the Audit Committee

The Audit Committee adopted the policy and procedure on selection of an audit firm to audit unconsolidated and consolidated, which is available at https://ir.xtpl.com/pl/materialy/korporacyjne/

The purpose of the auditor selection policy and procedure is to define transparent and non-discriminatory rules rules for the process leading to submission by the Audit Committee, free from any influence by third parties, recommendations regarding the audit firm, and the selection by the Supervisory Board of an independent and competent audit firm to conduct the audit.

When selecting an audit firm, the Supervisory Board acts on the basis of the below criteria and recommendations from the Audit Committee.

In the case of selection of an audit firm to conduct a statutory audit for the Company, except in the situation when the audit engagement is extended, the Audit Committee presents a recommendation to the Supervisory Board containing in particular:

- containing at least two possible choices for the audit engagement and a duly justified preference for one of them indicated to the Audit Committee;
- a statement that the recommendation is free from any undue influence by third parties;
- a statement that the Company has not entered into any agreements containing clauses referred to in Article 66(5a) of the Accounting Act;

The Audit Committee's recommendation is prepared following completion of the selection procedure referred to in Section 4 of the policy.

The Supervisory Board, when selecting an audit firm, and the Audit Committee, when drawing up the recommendation, may take into account the following criteria in particular (details shall be determined in the tender documentation): the audit firm's prior experience in conducting audits of financial statements and consolidated financial statements of companies, including public companies; the audit firm's capacity, including in terms of HR and organisation, to ensure full range of services specified by the Company in the request for proposal, taking into account the professional nature of this activity; the fee proposed by the audit firm; a possibility to conduct the audit within the time limit specified by the Company in the request for proposal; the audit firm's impartiality and independence in relation to the Company and the Group, within the meaning of the Act, in particular Article 69–73 of the Statutory Auditors Act; having the rights and authority to carry out the audit in accordance with the Statutory Auditors Act; satisfying the conditions to be able to issue an unbiased opinion in accordance with the Statutory Auditors Act; compliance with the conditions for the rotation of the audit firm and the key statutory auditor in accordance with the Statutory Auditors Act and Regulation (EU) No 537/2014 of the European Parliament and of the Council of 16 April



2014 on specific requirements regarding statutory audit of public-interest entities and repealing Commission Decision 2005/909/EC, and the Act of 11 May 2017 on statutory auditors, audit firms and public oversight ("Regulation"); compliance by the audit firm with the standards pertaining to the audit of financial statements; other justified criteria, indicated at the discretion of the Audit Committee and the Supervisory Board.

When selecting an audit firm, the Supervisory Board uses the following rules: the rule of rotating the audit firm, based on which the maximum duration of uninterrupted statutory audit engagements with the same audit firm or an audit firm connected with such audit firm or any Member of its network in the EU to which these audit firms belong, may not exceed 5 years; the rule of a cooling off period, based on which after the maximum period of uninterrupted duration of the audit engagement rthe current audit firm shall not carry out any statutory audit for the Company over the following four years; the rule of rotating the key statutory auditor, based on which the key statutory auditor may not carry out statutory audits at the Company for a period longer than 5 years. The key statutory auditor may again conduct statutory audit of the Company after at least 3 years from the end of the last statutory audit, subject to the rule of selecting an audit firm for a minimum period of two years.

Furthermore, the Company may invite any audit firms to submit their proposals for a statutory audit provided that this is not in breach of Article 17(3) of the Regulation, which applies to the maximum duration of an audit engagement with a particular audit firm; organisation of the tender procedure does not preclude the participation in the selection procedure of firms which received less than 15% of the total audit fees from public interest entities in the Member State concerned in the previous calendar year, as specified in the list of audit firms referred to in Article 91 of the Statutory Auditors Act; 4.3.1.3 this is not in breach of the provisions which are the basis for provision of non-audit services by the audit firm, including Article 5 of the Regulation and Article 136 of the Statutory Auditors Act, which relate to prohibited services.

The Audit Committee adopted the policy on provision by the audit firm which conducts an audit, by its affiliates and by Members of its network, of permitted non-audit services. The policy is available at https://ir.xtpl.com/pl/materialy/korporacyjne/

The policy reflects the provisions of the Regulation.

The policy on provision by the audit firm which conducts an audit, by its affiliates and by Members of its network, of permitted non-audit services provides that the Audit Committee issues a decision on provision of non-audit services after assessing whether the service is permitted, whether the service is not prohibited and whether there are any threats to the independence of the audit firm. The Audit Committee communicates its decision immediately to the Supervisory Board and the Management Board of the Company. Permissible services may be provided to the extent not related to the tax policy of the Company and after the Audit Committee has carried out an assessment of risks and independence safeguards.

The statutory auditor or audit firm carrying out the statutory audit of the Company and Members of their networks, or entities connected with the statutory auditor or audit firm, may not provide the Company, its parent company or entities controlled by it with any prohibited services other than financial audit in the following periods: from the beginning of the audited period to the issuance of an audit report and in the financial year immediately preceding the above period, with respect to services related to development and implementation of internal control procedures and risk management procedures connected with preparation or control of financial information or development and implementation of technological systems related to financial information.

The powers and duties of the Audit Committee provided for by law are fully performed by the Audit Committee as of 20 February 2019 – i.e. from the date when the Issuer's shares were admitted to trading on the regulated market and when the Issuer obtained the status of a public interest entity.



#### Auditor selection

The Supervisory Board selected the audit firm 4AUDYT sp. o.o. with its registered office in Poznań, based on the resolution of 22 December 2017. At that time the Company was not a public interest entity and was not obliged to conduct a formal selection procedure in accordance with the requirements of the Statutory Auditors Act, i.e. selection of the audit firm did not have to take place based on a recommendation drawn up following a selection procedure organized by the Company in compliance with the applicable criteria under the Statutory Auditors Act.

Remuneration of the audit firm is described in point 4.9.11

## Other

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# 6. REPORT ON NON-FINANCIAL INFORMATION FOR 2018

Not applicable. XTPL S.A. does not meet the criteria set out in Article 49b(1) of the Accounting Act.

## 7. MANAGEMENT BOARD'S STATEMENT

The Management Board of XTPL S.A. declares that to the best of its knowledge the annual financial statements for 2018 and the comparable data have been prepared in accordance with the applicable accounting policies and give a true, fair and clear view of the assets, financial position and profit or loss of XTPL S.A.

The Management Board of XTPL S.A. declares that the Management Board's report on the activities of XTPL S.A. gives a true view of development, achievements and the situation of the Company (including a description of key threats and risks) in the financial year 2018.

CEO

Filip Granek

Management Board Member

Maciej Adamczyk

Fito force

## 8. INFORMATION OF THE MANAGEMENT BOARD

On the basis of the Supervisory Board's statement and the Supervisory Board's resolution on auditor selection for audit of the Company's annual financial statements of 22 December 2017, the Management Board of XTPL S.A. advises that the auditor for the 2018 annual financial statements was selected in accordance with the applicable law, including the legal provisions governing the selection of an audit firm.

In addition, the Management Board advises that:

- a) the audit firm and Members of the auditing team responsible for audit of the 2018 annual financial statements met the conditions for preparing an impartial and independent audit report on the annual financial statements in accordance with applicable laws, professional standards and professional ethics;
- b) the applicable laws related to the rotation of the audit firm and the key statutory auditor and the mandatory cooling off period are complied with by the Company;
- c) The Company has an auditor selection policy in place as well as a policy on the provision for the Issuer of non-audit services by the audit firm, including services conditionally excluded from the range of prohibited services.

CEO

Filip Granek

Management Board Member

Maciej Adamczyk

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### 9. STATEMENT OF THE SUPERVISORY BOARD

Pursuant to § 70(1)(8) of the Finance Minister's Ordinance of 29 March 2018 on current and financial information provided by issuers of securities and the conditions for equivalent treatment of the information required by the laws of non-member states, the Supervisory Board of XTPL S.A. declares that XTPL S.A.:

- a) complies with the legal provisions regarding appointment, composition and functioning of the Audit Committee of XTPL S.A., including those relating to fulfillment by its Members of the independence criteria and the requirements re knowledge and skills in the industry in which XTPL S.A. operates as well as in the area of accounting or audit of financial statements;
- b) The Audit Committee of XTPL S.A. performed the tasks of the audit committee provided for in the applicable laws; this role has been performed in the full scope since 20 February 2019, i.e. since the date of admission of XTPL S.A. to trading on the regulated market as on that date XTPL S.A obtained the status of a public interest entity and thus began to be fully subject to the legal provisions pertaining to the audit committee.

Wiesław Rozłucki - Supervisory Board Chairman

Bartosz Wojciechowski - Deputy Chairman of the Supervisory Board

Konrad Pankiewicz - Supervisory Board Member

Sebastian Młodziński – Supervisory Board Member

Piotr Lembas - Supervisory Board Member.

## 10. MANAGEMENT BOARD'S OPINION

Following its audit of the financial statements of XTPL S.A. for the financial year 2018, the audit firm did not issue any qualified or adverse opinion.

CEO

Filip Granek

Management Board Member

Maciej Adamczyk

### 11. ASSESSMENT BY THE SUPERVISORY BOARD

The Supervisory Board of XTPL S.A. declares that it has assessed the Management Board's report on the Company's activities in the financial year 2018 and financial statements for the financial year 2018 in terms of their compliance with the books of account, evidence and the facts, and as a result of the assessment it confirms that these documents have been prepared in accordance with the Company's books of account, evidence and the facts.

Wiesław Rozłucki - Supervisory Board Chairman

Bartosz Wojciechowski - Deputy Chairman of the Supervisory Board

Konrad Pankiewicz - Supervisory Board Member

Sebastian Młodziński - Supervisory Board Member

Piotr Lembas - Supervisory Board Member.

## 12. APPROVAL FOR PUBLICATION

The annual report for 2018 was approved for publication by the Company's Management Board on 30 April 2019.

CEO

Filip Granek

Management Board Member

Maciej Adamczyk