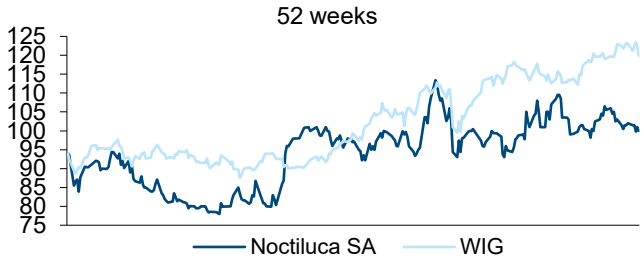
COMPANY REPORT

Noctiluca SA

Initiated with Buy

PLN mn	2025e	2026e	2027e	2028e
Net sales	4.0	7.0	12.0	37.4
EBITDA	-3.2	-1.4	1.8	13.8
EBIT	-4.1	-2.3	0.7	12.6
Net result after min.	-4.2	-2.3	0.5	11.3
EPS (PLN)	-2.43	-1.35	0.31	6.54
CEPS (PLN)	-1.91	-0.78	0.94	7.23
BVPS (PLN)	5.39	4.03	4.35	10.89
Div./share (PLN)	0.00	0.00	0.00	0.00
EV/EBITDA (x)				
P/E (x)	nm	nm	nm	15.3
P/CE (x)	-52.3	-127.8	106.3	13.8
Dividend Yield	0.0%	0.0%	0.0%	0.0%



Performance	12M	6M	3M	1M
in PLN	6.4%	2.9%	0.6%	1.8%

Share price (PLN)	101.00	Reuters	NCLP.WA	Free float		68.4%
Number of shares (mn)	1.7	Bloomberg	NCL.PW	Shareholders		Synthex Tech.
Market capitalization (PLN mn)	175	Div. Ex-date				Mariusz Bosiak
Enterprise value (PLN mn)	167	**Target price**	**154.84**	Strona internetowa		noctiluca.eu

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European OLED hub on horizon

We are initiating coverage of Noctiluca, setting a target price of PLN 154.84 per share and a Buy recommendation based on forecasts.

Noctiluca is a rapidly growing producer of specialty organic chemicals. These are primarily emitters and functional materials in OLED technology in displays that will dominate for the next two decades. Noctiluca has already managed to register its first patent families and achieve its first sales in its fifth year of operation, while industry competitors (UDC, Kyulux, Cynora) took at least 8-9 years.

Noctiluca is building Europe's first technology hub dedicated to OLED materials, actively developing cooperation with more than 20 research teams from universities and institutes at home and abroad. The goal of this is to significantly accelerate commercialization processes and increase the number of deployments of innovative OLED materials. In our opinion, with talks already advanced with 10 smaller electronics manufacturers and 11 world-sized corporations, Noctiluca can count on strong sales revenue growth in the coming years. Currently, Noctiluca has solutions that could be used in industries with a total estimated value of more than USD 340bn.

At a time of acquisitions of similar companies in the industry, the valuation took place at a ratio of 11.89x the value of sales and 2.98x the number of patent families filed. According to our calculations, taking into account the Board's strategic goals and our forecasts, Noctiluca could be worth as much as PLN 699mn in 2029 (PLN 400/share - at current share count).

Erste Group Research – Company Report finalized and released August 5, 2025, 07:30, CET, reviewed by Henning Eßkuchen (supervising analyst)

Investment story

Risk factors

1. **Risk of technological change**. OLED technology, while currently recognized as the leading modern display solution, is not free from the risk of the emergence of new competing solutions. OLED is dynamically increasing its market share, and global industry leaders are constantly investing in acquiring innovations that can provide a market advantage in future generations of devices. Therefore, it cannot be ruled out that, in the medium to long term, display technologies with higher brightness, durability or energy efficiency will emerge that could threaten OLED's position as a market standard.

   At the same time, it is worth emphasizing that in many key segments - such as transparent, curved, bendable or rollable displays - OLED currently remains a technology with no real competition. Its unique physical properties, such as flexibility, low thickness, the ability to emit light without the need for backlighting, and high color reproduction quality, make it indispensable in applications requiring unusual forms and integration with non-standard surfaces. This includes wearable electronics (wearables), smart labels, packaging, head-up displays (HUDs) in automotive and many IoT solutions where alternative display technologies do not offer comparable functionality.

   Impact: Medium **Likelihood:** Low

2. **Risk of lack of interest in the solution by contractors**. Even the signing of an MTA does not guarantee that a concern will choose to use the supplied technology in its displays. To minimize this risk, Noctiluca is diversifying its customer portfolio. A large stock of contracts with contractors could be a rationale for trying to lock up the technology for other players in the future by acquiring the entire company.

   Impact: Medium **Probability:** Medium

3. **Risk of economic decline**. Increased tariff barriers negatively translate into global trade turnover and hinder growth in consumer spending. An economic downturn could prompt large corporations to seek cost savings and hold back on R&D spending and acquisition of new patents. Such a situation could delay the potential commercialization process for materials companies. In the case of Noctiluca Materials, the commercialization process is based on multi-year technology development plans by leading global players (e.g. Samsung has an R&D budget larger than the whole of Poland), which use technological superiority as a key market differentiator, so reducing R&D investment in this episode is unlikely. In addition, since NCL's customers are mostly outside Poland, it invoices in USD or EUR; in the event of a downturn, a change in the PLN/USD exchange rate would work in NCL's favor, even with a periodic reduction in sales volume.

   Impact: Low **Probability:** Medium

4. **Loss of top employees**. Noctiluca's business is based on the work of an interdisciplinary team of more than 20 highly qualified scientists and technology experts employed directly within the company's structures. Their departure or employment by other competitors could be a challenge to the continued pace of research

activities. To mitigate this risk, Noctiluca is providing an opportunity for key personnel to take advantage of an incentive program, where 250,000 F shares can be subscribed for at PLN 0.15/share (retaining a 4-year lock-up + reverse vesting), as well as offering a wide range of other measures aimed at long-term retention, including offering to pursue implementation PhDs at the company.

Impact: Low **Likelihood:** Low

5. **Risk of shareholder dilution.** The history of companies similar to Noctiluca shows that, in the past, as companies grew, they needed additional funds to increase their operations, which involved the need to raise additional financing. In the case of Noctiluca, such a risk cannot be ruled out in the future. The company had a passed authorization from the Board of Directors to increase its share capital by 173,000. It was used in full - 24,000 subscribed in September 2024, by Rubicon Partners at PLN 96/share and 149,000 issued and subscribed in June 2025, at PLN 90/share. Currently, there are no more free shares in the target capital.

   Impact: Medium **Likelihood:** Low

6. **Risk of Chinese attack on Taiwan.** The conflict between China and Taiwan has been gaining momentum in recent years. In the event of an attack on Taiwan, one can expect problems with the availability of semiconductors, and thus problems in the production of electronics in the broadest sense. The imposition of sanctions on China by Western countries is possible in such a scenario. Then we could expect a decline in display production and a slowdown in technology development by corporations. In the event of such a scenario, it will be necessary to restore production capacity in electronics, including displays in Europe and the US (by expanding the current potential of these countries), and consequently build new value chains of which Noctiluca is a part. It is worth noting that the chemical compounds developed and produced by Noctiluca do not contain rare earth metals, more than 90% of whose global production is under the control of China and Russia.

   Impact: High **Likelihood:** Low

Display technologies

In the past, the display market was dominated by **CRT technology**, whose main drawback was its large size. The answer to this was **plasma technology**, which over time lost out to **LCD technology** due to high production costs. Despite the high level of technology, LCD matrices still require image enhancement mechanisms and still offer relatively low contrast and poor black reproduction. Once LCD technology reached its maximum possible performance, with an answer to its limitations came OLED (organic light-emitting diode) technology, made from organic compounds and used as a self-emitting light source. Displays produced using OLED technology are extremely thin due to the lack of need for backlighting, as the diodes generate light on their own. This causes the latest OLED displays to be 1mm thick, compared to 2-2.5mm for LCD screens, which in turn is of great importance in, for example, smartphones, whose designers aim to make them as thin as possible. In addition to standard glass-based displays, OLEDs are also being used with plastic substrates to build transparent and/or flexible displays, televisions or other mobile devices, which are the future of consumer electronics (CE) and IoT.

Evolution of display technology

Source: Noctiluca

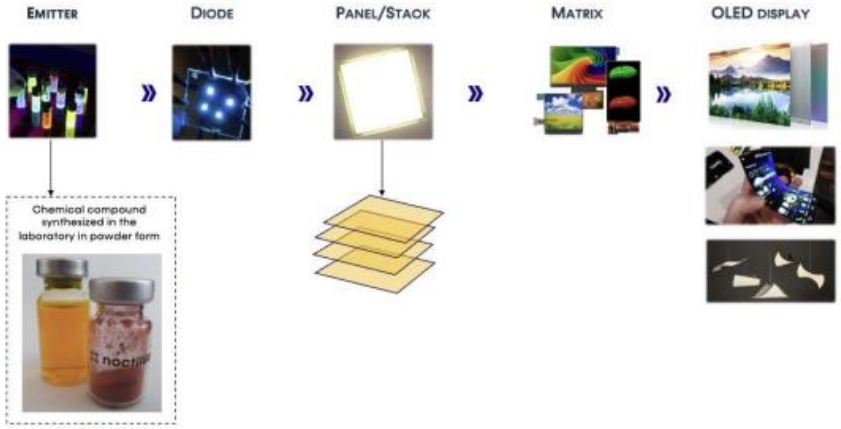
The history of OLEDs as we know them today dates back to the end of the 20th century. In the 1980s, scientists, after nearly 20 years of academic research, discovered organic materials that were capable of emitting light when excited by an electric current. This observation spurred further research and development of OLED technology. As early as 1987, chemists working for Kodak developed the first OLED device, demonstrating the technical and practical potential of this type of display.

The first commercial receiver using OLED technology was unveiled in October 2007 by Sony. The XEL-1 TV made with OLED technology had a diagonal of 11 inches and a resolution of 960 × 540 pixels, high contrasts and an unprecedented thickness of only 3mm. The next technology giant on the market was Samsung, which in April 2008 unveiled the first two OLED computer monitors measuring 15 and 30 inches. The main advantages of the prototypes were 30% lower power consumption compared to LCD, as well as 97% coverage of the Adobe RGB color palette.

Meanwhile, the first OLED TV to go into mass production was the LG 55EM9600. The device was made with WOLED technology, which includes one additional color - white - in addition to the standard RGB pixel colors. The model measured 55 inches and was about 4mm thick. Its advantage over LCD displays on the market at the time was a much higher contrast ratio and 100 times faster response time.

OLED technology, thanks to its advantages such as flexibility, high contrast and energy efficiency, is gaining a dominant position in the global display market. Ongoing technological advances are making it possible not only to optimize production costs, but also to expand OLED applications into new industries, far beyond the traditional segments of consumer electronics, smartphones and consumer electronics. According to the technological life cycle, **we can conclude that there are at least three more decades of OLED technology dominance ahead.**

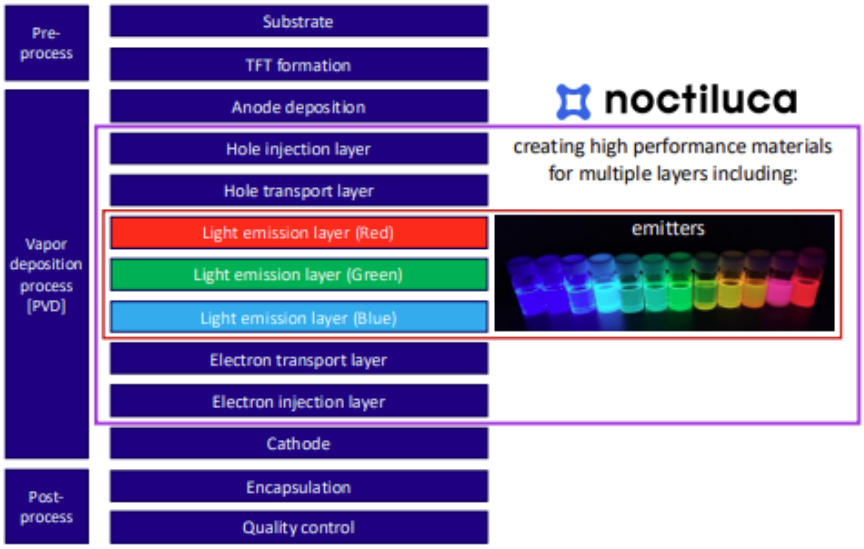
Elements of an OLED display



Source: Noctiluca

OLEDs consist of an emission layer, electric charge transport and blocking layers, a substrate, and an anode and cathode. The layers are composed of organic compounds whose conductivity level is in the range between insulators and conductors - for this reason they are called organic semiconductors. An OLED is made up of several very thin layers (nanometres) of materials layered on top of each other. **Noctiluca develops specialized chemical materials applied to the layers of the OLED panel, such as emitters and materials that inject and transport electrons and electron holes (functional materials), among others.**

Components of an OLED display



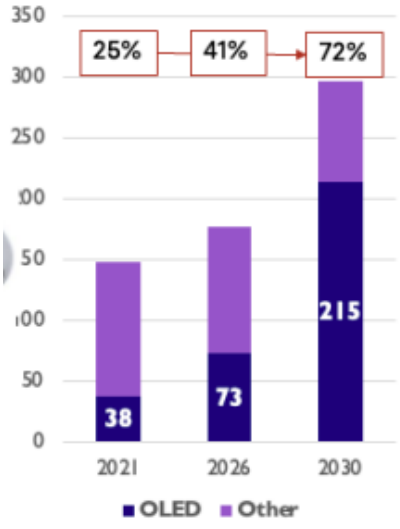
Source: Canon

OLED advantages: **Highest contrast** among current display technologies. Color reproduction to achieve **WIDE Gamut RGB**. **Ability to curve the screen surface**. Can be applied to flexible and lightweight substrates (roll-up displays, screens sewn into clothing, and lighter mobile computers). **Does not require backlighting**. **Lower production and operating cost**. The image remains correct even when the viewing angle is close to 90°. The display can show the image from both sides. Much **shorter response time** compared to LCD monitor. **No mercury is used in the production** process. Mass production costs are much lower than the production of LCD displays and plasma panels. The ability to produce transparent/transparent displays and the ability to control each pixel individually (energy savings). OLED emits much less blue light.

Disadvantages of OLED: **Short lifespan of blue OLEDs** - about 5-14tsd hours of operation, where red and green OLEDs can last as long as 46-230tsd hours of operation (depending on the level of illumination). **Organic materials are particularly sensitive** to environmental factors. Water or moisture can easily destroy organic material. **Higher power consumption than LCD screens when displaying white and bright elements.** Susceptibility to pixel "burn-in" when static images are displayed for long periods of time. Visibility of screens in sun exposure is worse than LCD.

As recently as 2021, 25% of the display market was OLED, while in 2026 it will be ~41%, and in 2030 it will be, over 70%. In addition, as of 2017, investment by just five key players in OLED display production capacity (factories) exceeded USD 64bn.

OLED share in displays (%; left chart) and capital investment in OLED production capacity (right chart)



Mass market technology with steadily growing market share

Year	Expenditure	Entities
2017	7 billion USD	LG
	2,7 billion USD	Apple
2019	2,5 billion USD	LG
2020	6,8 billion USD	TCL
2021	2,8 billion USD	LG
	1,4 billion USD	LG
	2,7 billion USD	SAMSUNG
2022	1 billion USD	LG
	11 billion USD	SAMSUNG
2023	9,2 billion USD	BOE
	2,47 billion USD	LG
	3,14 billion USD	SAMSUNG
2024	0,78 billion USD	LG
	3 billion USD	SAMSUNG
	8,4 billion USD	BOE

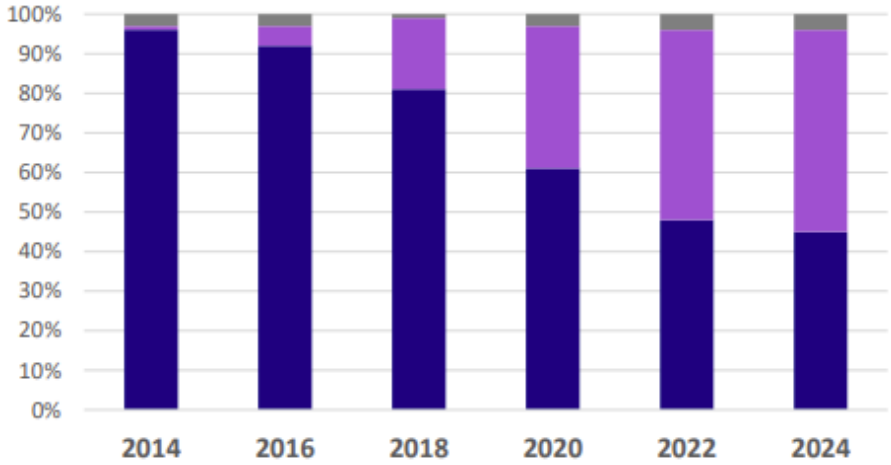
More than USD 64 bn of CAPEX at least 25+ years of OLED domination (depreciation of expenditure, as it was with LCD)

Source: Noctiluca

The Koreans, who are the leaders of innovation in the area of displays, have sold all their LCD factories to China and India. It is noteworthy that in the case of TVs, OLED technology is close to dominance (by value, it may already be half of the market), while the revolution in the next few years is expected to happen in IT (Noctiluca is leading a development project with Guangdong Juhua Printing Display Technology [TCL] on a flagship OLED product for the IT segment). A challenge for OLED use in IT is the low variability of the image in monitors, which can lead to burn-in of some of the emitters after some use. Global companies are looking for technologies to increase pixel life, which would pave the way for increased OLED in IT (currently still a low-penetrated market by OLED; high growth potential). The highest growth rate for OLED displays in the coming years is expected to be in **smartwatches** (CAGR 11%), **OLED TV** (CAGR 13%), **Automobile Monitor** (CAGR 11%) and **public display** (CAGR 5%). The latter market segment has huge growth potential, but there would have to be factories for large-format OLED production worldwide, which in turn would revolutionize the **outdoor advertising** market (potential use of OLEDs on banners, billboards, building walls, market communications). Another interesting market is the use of **OLEDs in printed clothing** (within a few years, standards will come into effect in Europe requiring all construction workers to wear permanently luminous (self-emitting, not just reflective) clothing;

strong interest in solutions from the public services. The US Department of Defense (DoD) views display technology, including **OLED, as strategic** - especially in the context of national security, technological autonomy and military applications.

Share of OLED display production by country (dark blue South Korea; purple China; gray others)



Source: Noctiluca

Recent years have seen **increasing activity from Chinese players**. Today, the country's manufacturers already account for 51% of OLED shipments, while as recently as 2014 they were responsible for only 1%. China also has more than 50% of all AMOLED panel production for smartphones and a 53% share of the global Automotive display market. OLED is a strategic technology in China's industrial development plans, and the industry can count on subsidies and concessions. Manufacturers are attracting specialists from abroad and investing in R&D. **China is expected to account for 77% of global OLED investment between 2020 and 2027.**

As a result of the increased expansion of Chinese brands, in the premium TV segment, the share of Chinese brands increased from 22% to 36% y/y in 4Q24. The upward trend for Chinese brands also continues in 1Q25, with analysis showing record shares for TCL and Hisense.

Chinese manufacturers appear to be following the growth path set by the leaders of a decade ago - Korea's LG and Samsung, who cemented their advantage through strategic M&A and vertical integration of the display value chain. The market expects a strong intensification of activity by Chinese players in this field due to their pursuit of globally secured IP portfolios and material (chemical) competence. It is worth noting that the **advantage of Chinese corporations is production capacity and access to labor. The challenge is access to chemical technology, which they can only acquire through partnerships or acquisitions of R&D companies** (e.g. Noctiluca).

Alternative technologies from OLED

In the display market, despite the strong dominance of OLED, there are also alternative technologies:

Micro LED: Micro LED is a modern panel technology that should be seen as a third category, alongside LCD and OLED. For all intents and purposes, it offers the advantages of one and the other, while eliminating their disadvantages. In micro LED panels, too, each pixel glows individually. However, there are two important differences. First, the diodes are not organic (unlike OLEDs), which allows for much higher brightness and

longer life. The disadvantage is the price. For example, a Samsung TV debuting in 2022 with a 110-inch micro LED panel costs PLN 675tsd. One of the biggest challenges of micro LED technology is the difficulty of miniaturization. It is very expensive and time-consuming to produce small displays, and the cost only drops noticeably above about 55-60 inches. Another disadvantage is also the difficulty of using transparent and flexible displays.

Mini LED: This is a new display technology that, by reducing the size of LEDs, is expected to significantly improve image quality - including black depth and contrast. Reducing the size of LEDs allows for a significant increase in the number of zones that can be blanked out. Mini LED TVs are more affordable than micro LEDs. They are currently offered by Samsung, Hisense, TCL, HKC and Panasonic. The market does not expect widespread adoption of this technology within the next decade or even two, although niche specialized use cases may take place at that time.

QD-LED: This is a hybrid display technology that aims to leverage the already impressive features of OLED TV and improve brightness and color through the use of quantum dots. The technology is being promoted by Samsung, but its cost is so high that the company is considering the economics of developing it further.

Quantum dot: Quantum dots are microscopic particles tens of thousands of times smaller in diameter than the thickness of a human hair. Quantum dots are placed between a TV's backlight and colour filters. Light from LEDs or OLEDs falls on the quantum dots, and the dots convert some of this light to a different wavelength and let some pass through virtually unchanged. After passing through the layer of quantum dots, we get blue, green and red light with better colour purity parameters, and it is from these that the TV creates a wide color palette. The scalability of quantum dot technology is limited, making it mainly applicable to the premium TV segment, hampering its large-scale expansion.

Industry leaders in chemical materials for OLED

UDC began operations in 1994 and has been listed on NASDAQ (ticker: OLED) since 1996. The company is the **undisputed leader in the OLED emissive materials market**, specializing primarily in iridium-based phosphorescent materials (PHOLED), the so-called Second Generation. The company holds more than 6,500 patent applications, holding a near-monopoly position in the iridium PHOLED materials market, which has been secured by their successful path in the acquisition market. The company has acquired patent portfolios for iridium and platinum second generation emitters from companies such as Fujifilm (2012 - about 1,200 patents), BASF (2016 - 500 patents in 86 families) and Merck KGaA (2023 - 550 in 172 families). In addition, licensing their products provides them with almost half of their revenues.

The company has supplied technology giants such as **Samsung, BOE, LG Display, TCL, Tianma, CSOT, Visionox, and AU Optronics** with its products in the past.

The company operates on a fabless model and since 2000 has worked closely with PPG Industries, which is their main supplier of materials, which also makes the company significantly dependent on them (contract renewed automatically every year, UDC can discontinue with one year's notice, PPG with two years).

The company is currently **entering the IT and automotive markets with its products, and has expressed a desire to expand into AR and VR** technologies. They are conducting their R&D in cooperation with American universities Princeton and USC. Currently, the main topics of their research are the production of a second-generation blue emitter and the development of hosts. According to their estimation, the introduction of a phosphorescent (second-generation) blue emitter will provide both a longer lifetime for displays and reduce power consumption by another 25%. It should be noted, however, that second-generation emitters are still being constructed using precious metals and rare earth metals, which strongly affects their price and availability.

In addition to the development of emitters and hosts, UDC **is focusing on the development of printing techniques**. Their flagship technology is OVJP (Organic Vapor Jet Printing), which is a dry sputtering (dry printing) technique. The company believes that this solution is superior to IJP (Ink Jet Printing), due to the technology's ability to cover much larger OLED areas and the lack of liquid waste that is inevitable with the IJP technique. The problem is, **OVJP technology is not proven in any production line**, while IJP is used by both TCL and smaller players.

UDC mentions in its annual report in the risks to the business model section that it has **no plans to work on the development of TADF** (third gen) **and PSF** (fifth gen) emitters, focusing instead on the current second-generation OLED emitter technology. UDC's products require the consumption of a considerable amount of materials per square meter, being much less economical and environmentally friendly compared to newer generation OLEDs. In our opinion, UDC is thinking and has plans to develop newer-generation emitters, while it does not communicate this to sustain the narrative holding the current business model in check. The company operates fabless, does not produce its materials itself, and owes much of its success to a successful series of acquisitions in recent years. **The company has lagged its competitors in entering the market for newer generation emitters, and is trying to protect its array of IP from being displaced by the market**. Their approach to R&D also remains quite distinctive, as evidenced by recent acquisitions of companies that can produce chemical materials for OLEDs, or have them patented. In UDC's case, we are talking about Merck, whose IP portfolio UDC acquired in 2023, or Adesis, which offers CRO chemical services. UDC has a solid market position for iridium red and green second-gen emitters (a precious metal, expensive to produce), while commercialization of the blue second gen emitter is going slowly, which will require further IP acquisitions to expand in this market segment.

Solus Advanced Materials

Solus began operations in 2019 as a spin-off from Doosan Co. Ltd., which still specializes in manufacturing three products today:

- Lithium-ion batteries
- Copper foils and electronic materials
- OLED display materials

The **OLED materials segment accounts for only about 20% of the company's sales**, which is its smallest revenue driver. The company has built locations responsible for the OLED segment on the territory of China and South Korea - leaders in the industry. It has even established a direct materials manufacturing subsidiary, Solus iTech Co., Ltd. In its business in this segment, Solus **focuses primarily on the production of hole blocking layers** (HBLs), which has given them a clear leadership position in this segment, with about **740 patent applications for the HBL layer** alone. The main materials the company supplies to the market are:

- HBL (Hole Blocking Layer)
- HTL (Hole Transporting Layer)
- ETL (Electron Transporting Layer)
- Green host (second-gen)
- Fillers for stacks

The company divides its R&D activities into two sub-components: the Research Center seeks to improve the quality of current products, and the Manufacturing Technology Center works in newer technologies, mainly centered around iLed technology, supported by the development of quantum dots to make displays more resistant to heat and humidity, optimizing their performance.

Solus is testing its materials through AI simulations, ensuring even greater cost optimization. As for their distinguishing materials, in the context of Noctiluca, it is worth mentioning their **development of a blue PSF emitter** (fifth-gen), which would give them the biggest advantage in terms of performance and lifetime, very much threatening Noctiluca's position, should they patent the technology.

It is worth mentioning that Solus **is also developing polymer materials for Ink Jet Printing (IJP) technology**, that is, like Noctiluca, recognizing the development potential in this segment of OLED display production.

DS Neolux DUKSAN Neolux Co.,Ltd.

A South Korean company that manufactures OLED materials, including emission layer components such as **RGB emitters** (red and green second-gen and blue first-gen), **HTL, ETL, CPL and EIL**, in addition to producing encapsulation and active matrix materials.

The company operates globally - **in Korea, China, Japan, the US and Europe** - and is considered one of the key suppliers of OLED materials for AMOLED panel manufacturers (thinner matrix, pixels and light intensity can be controlled, extinguished diodes do not consume power).

The company commercialized the sale of **Black PDL** (Pixel Defining Layer) in 2021. This is a layer that separates individual sub-pixels in the emission layer (EML) of an OLED panel. Traditionally, the PDL is yellow-brown in color, which can reflect ambient light and reduce the visibility of the display, especially outdoors. Changing the PDL color to black is intended to improve the performance and visibility of OLED displays. The black PDL prevents organic materials from mixing between subpixels and protects against electrical shorts. As a result, OLED displays can offer better image quality and higher light emission efficiency, plus they will be more visible in full light and, thanks to the removal of the polarizer, much thinner.

In February 2025, Duksan Neolux **acquired a 59.7% stake in Hyundai Heavy Industries Turbomachinery** - a move that signals a diversification of its business and potential entry into high-tech industrial segments. This could mean an attempt to leverage materials competence in other industries, such as energy and aerospace.

The company itself **develops and manufactures its OLED materials and conducts its own R&D**. Currently, its main focus is on the development and improvement of HIL, HTL materials, the development of hosts for green and blue emitting materials, and the creation of plastic OLED materials. In addition, like Solus, it is doing research on quantum dots (QDs) and materials for QLED technology, which is unlikely to be as forward-looking.

Duksan also supplies HTL materials and works closely with Samsung under the JDA agreement. The company believes that HTL will ensure their products maximize lifespan, performance, maintaining price competitiveness.

The company also produces special conductive/particle (CP) beads that connect the display panel and ACF circuit board. This is part of ACF technology, which is becoming increasingly important in the production of thin and precise displays. The market is growing because there is increasing demand for larger and more detailed displays, with higher resolution.

The company's **main contractors are IDK, Samsung and H&S Hi-Tech**, with which the contract is renewed automatically every year.

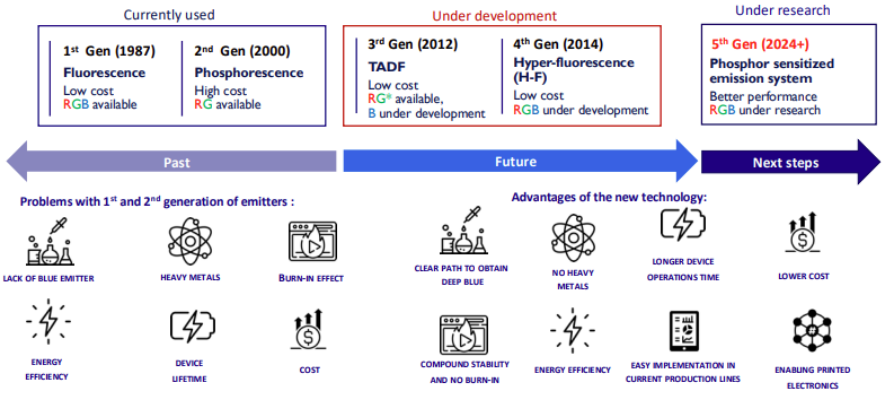
The leading competitive advantage cited by the company is its production capacity - **counted in tons for synthesis and refining, up to 30 tons for the Black PDL layer**.

OLED generations

The evolution of OLED technology can be divided into generations, depending on the characteristics of the emitter. In **Generation I**, fluorescent diodes still had poor energy efficiency but good color quality. **Generation II** with phosphorescent diodes clearly improved energy efficiency but emitted poor color quality with a burn-in effect and no blue emitter. **Generation III** is based on the thermal activation of delayed fluorescence and achieves good efficiency and similar color quality to Gen II. **Generation IV** is a combination of I and III in which energy efficiency and color quality were improved, while increasing emitter lifetime. **Generation V** further improves emitter life and performance.

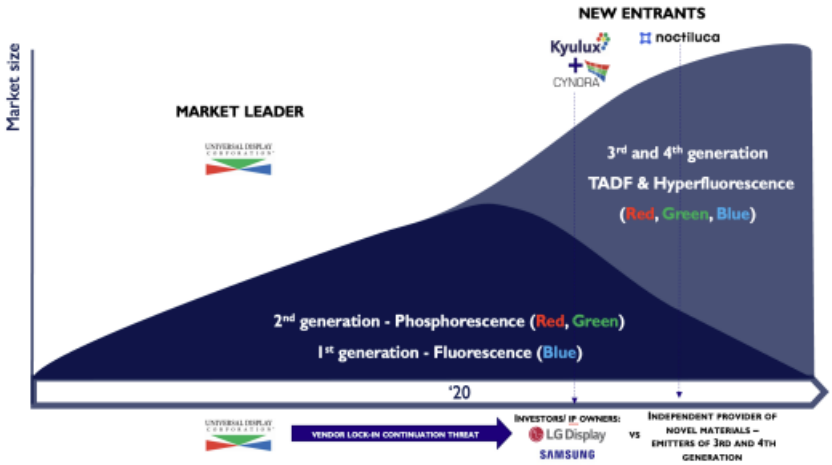
It is worth noting that no one in the world has yet succeeded in commercial implementation in a mass-produced end device of materials other than Generation I and II. Subsequent generations bring increased device operating life and improved energy efficiency. The industry's ambition is to increase the life of the blue pixel and reduce the cost of OLED production.

Generations of compounds for OLEDs



Source: Noctiluca

OLED revolution against market size



Source: Noctiluca

Noctiluca filed the first patent application for its proprietary fifth-generation OLED emitters in 2024. In addition, Noctiluca has developed a solution of high-performance functional material (HPM) affecting more efficient conduction of electrons, which improves the conversion of electric current to light, increases image quality and color saturation. Most importantly, the solution increases the life of a blue pixel by up to 15 times with reduced power consumption.

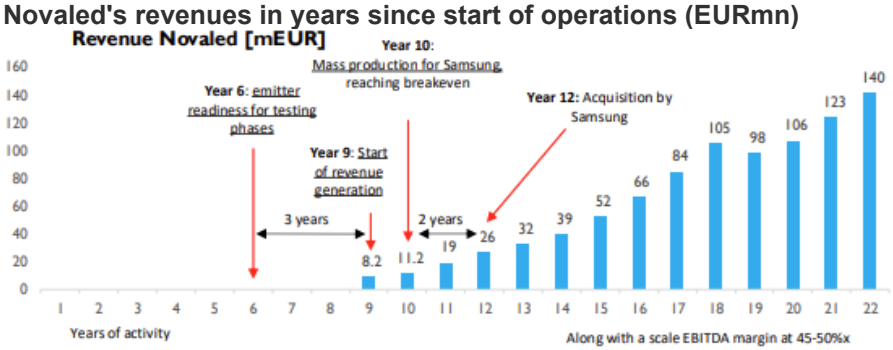
Transactional market for OLED chemical materials

In 2009, LG acquired OLED-related IP from **Kodak** for USD 100mn, which represented some 20 years of R&D.

In 2012, Universal Display Corporation bought a portfolio of OLED IP from **Fujifilm** for USD 105mn.

In 2013, Samsung acquired Germany's **Novaled** (~10x revenue) for USD 347mn, which had previously been fulfilling orders for the Korean company (95% of Novaled's revenue came from Samsung). The acquisition allowed Samsung to maintain its competitive edge and cut off other manufacturers from acquiring Novaled's technology.

Novaled's revenues in years since start of operations (EURmn)

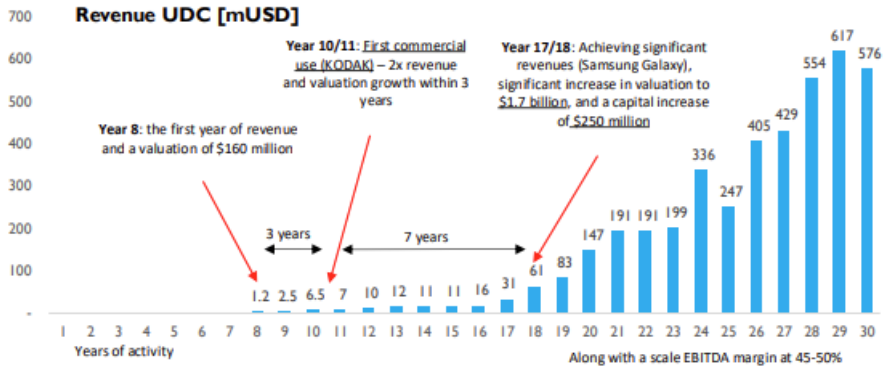


Source: Noctiluca

In 2016, Japan's **Kyulux** raised USD 13mn in financing from Samsung, Japan Display and JLED, with another USD 34mn in 2019 and USD 29mn in 2023. Kyulux specializes in OLEDIII and IV generation materials. The company's annual revenue is about USD 20mn from R&D work for major players, not from commercialization of third- and fourth-generation materials.

Universal Display Corporation in 2016 acquired **Adesis** (~12x revenue), which specialized in organic synthesis research, for USD ~36mn. At the time of the acquisition, Adesis employed ~40 people.

Universal Display Corporation's revenues in years since start of operations (USD mn)



Source: Noctiluca

In 2016, Universal Display Corporation bought an OLED IP portfolio from **BASF** for USD 96mn.

In 2019, LG acquired **DuPont soluble OLED technologies** assets, in a deal estimated at USD 175mn.

In June 2022, **Cynora GmbH** was bought out by Samsung to acquire its patent portfolio (for about USD 300mn with zero revenue). This was a so-called "rescue exit" for an amount in the hundreds of millions of USD. As a result, smaller players faced a so-called supplier lockout and began to look for opportunities to start working with alternative R&D entities working on new generations of emitters and auxiliary materials, thus strengthening the position of independent companies like Noctiluca. The acquisition increased the stock of blue emitter patents held by Samsung. After the acquisition, the company was liquidated, and the entire team was dismissed (only the patents were acquired).

In 2023, Samsung fully acquired **eMagin** for USD 218mn. The company was founded in 2000 and is a leading manufacturer of AM-OLED (Organic LED) active-matrix micro displays.

In 2023, Universal Display Corporation acquired a portfolio of 550 patents with 172 families from **Merck** and enters into a collaboration to further develop the technology. The price is not known.

It is noteworthy that **Noctiluca generated its first revenue from proprietary OLED materials in just its fifth year of operation** - UDC, Kyulux and Novaled took between seven and nine years to do so, while Cynora never generated revenue. Noctiluca began patent expansion from its fifth year of operation - faster than Cynora or UDC, which took eight and nine years, respectively. In its first year of revenue generation, UDC was valued at USD 160mn, while Kyulux was valued at USD 50mn four years before its first revenue. It is noteworthy that **roughly three years after entering into JDPs (Joint Development Projects) with OLED display manufacturers, the industry leaders achieved a jump in revenue generation.**

Comparison of Noctiluca's growth rate with other companies in industry

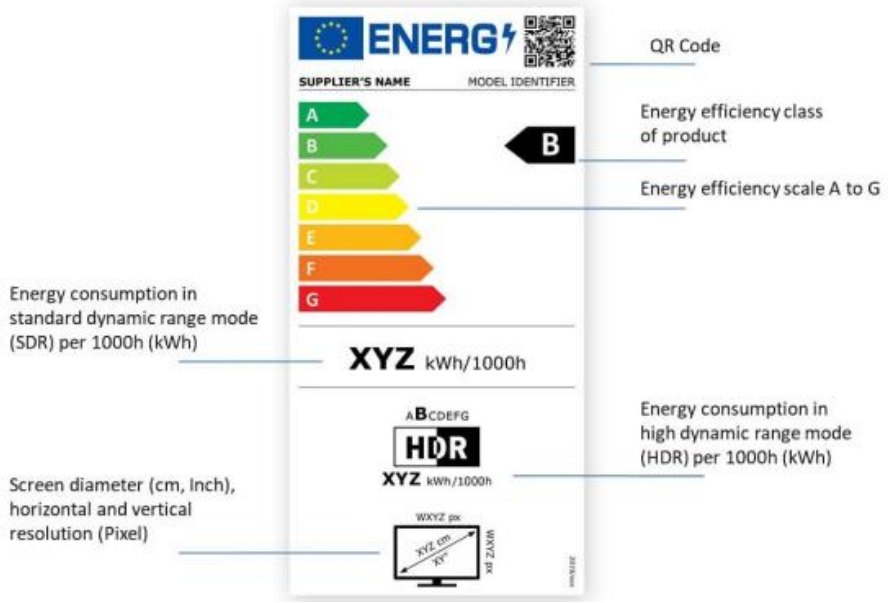
	revenue					patent families				
Years of operation	UDC	Novaled (EUR)	Kyulux	Cynora	Noctiluca	UDC	Novaled	Kyulux	Cynora	Noctiluca
establishment	1994	2001	2012 / 2015	2003	2019	1994	2001	2012 / 2015	2003	2019
1	-	-	-	-	-	-	-	1	-	-
2	-	-	-	-	-	-	-	2	-	1
3	-	-	-	-	-	-	6	10	-	1
4	-	-	-	-	-	-	8	21	-	1
5	-	-	-	-	0,2	-	15	26	-	4
6	-	-	-	-		-	36	46		10*
7	-	-	-	-		-	61	61	-	
8	1,2	-	-	-		-	78	91	1	
9	2,5	8,2	5,0	-		3	88	108	6	
10	6,5	11,2	12,5*	-		5	105	122	9	
11	7,0	18,6*	20,0	-		13	124	149	14	60*
12	10,0	26,0	-	-		28	139	185	18	

Source: Noctiluca

Legislative changes favor OLED

On March 1, 2023, the **EC set a regulation establishing eco-design requirements for displays**. It set a maximum energy consumption for TVs that can be sold in the EU - limiting, even closing, the market for LCD and micro-LED (most HD and virtually all 8k displays) from 2023 and **promoting low-carbon technologies like OLED**.

New designations for displays sold in EU



Source: Noctiluca

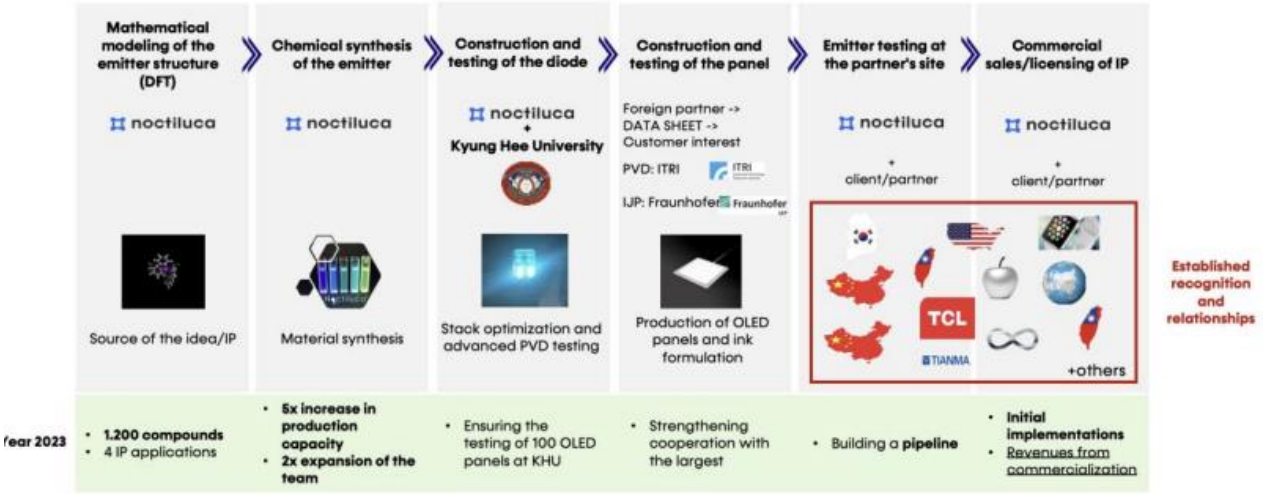
In addition, on February 7, 2023, the **European Chemicals Agency (ECHA) published a comprehensive dossier to ban some 10,000 per- and polyfluoroalkyl substances**. The anticipated restrictions are likely to take effect in 2026 or 2027. PFASs are chemicals that have been used in industry and consumer products since the 1940s. Due to their widespread use and persistence in the environment, many PFASs have already made their way into the blood of humans and animals around the world. Replacing PFAS materials in displays will require a great deal of innovation and will affect the acceleration of technological change in OLEDs. **This necessitates a change in display architecture (stack) caused by the inability to replace some PFAS materials with fluorine-free counterparts. Noctiluca declares that it does not use PFAS in any of its products. The outdated, off-the-shelf stacks commonly used by smaller engineering companies (e.g. from Kodak) will have to be replaced with new ones** - companies without their own chemical resources will have to enter into partnerships to develop new-generation stacks. This **also necessitates innovation in HPM** - the latest generation materials do not contain PFAS.

Noctiluca's strategy

Noctiluca's management emphasizes that the **key value in the valuation at the time of the transaction is the commercialized patent families** (not the sheer number of applications) and t**he revenue generated from its own IP** from multiple customers. The company is focusing on increasing material volumes and shortening product development cycles. Management is working on complex problem solving, preparing ready-made solutions like material setups (in powder form) dedicated to the leading production technology - vapor deposition (PVD) and inks dedicated to the pioneering production method - IJP. It is developing the technologies and systematically filing patent applications for new families covering innovative groups of compounds. In 2023, in addition to the development of emitters, Noctiluca has become a company that develops and produces chemical compounds for non-emissive OLED layers and for applications outside the OLED market. From 2024 to 2025, the company focused on strategic development: from providing material for a single device layer to creating innovative device architecture (stack) with higher current efficiency and longer lifetimes, along with a full set of materials for their production.

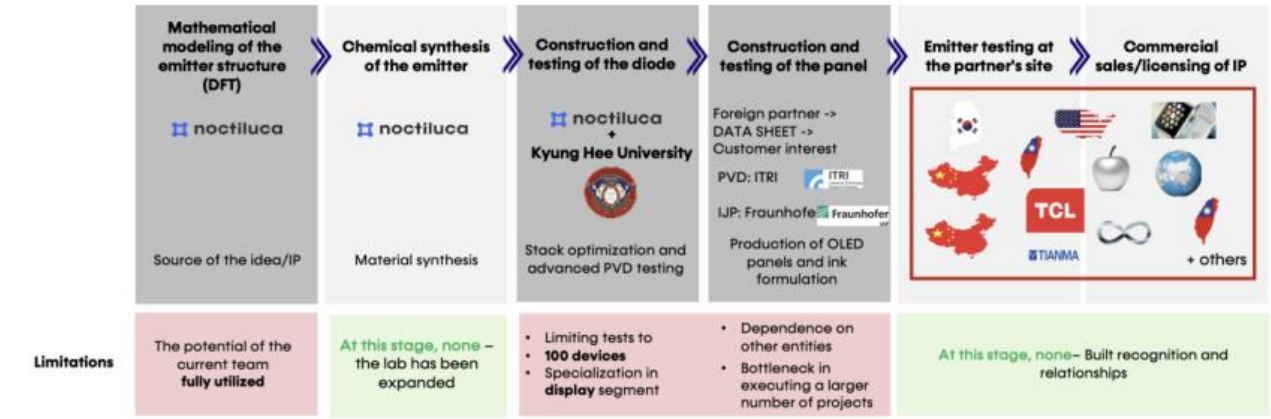
Priority is given to solving chemical (material) challenges in devices and a comprehensive approach to optimizing entire systems.

Product development diagram



Source: Noctiluca

Noctiluca's scheme of operations



Source: Noctiluca

Noctiluca's strategy from 2025 is to **establish an OLED Hub in Europe and Poland**. In 2024/2025, relationships were opened with nearly 50 research teams, and the company is already in advanced talks with 22 of them, and is reviewing areas for cooperation with more than 10 on the basis of various agreements.

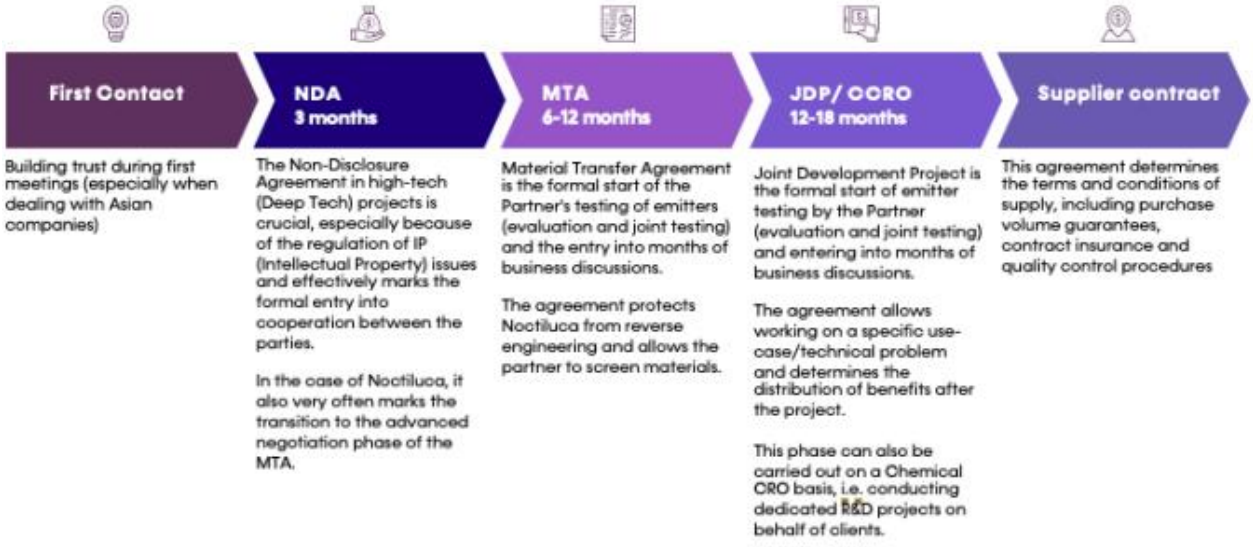
Advance discussions with various scientific entities:

	Country	Interest from the entity	Meeting	Willingness to cooperate	NDA/MTA	Selecting a topic of cooperation	Scheduled joint project	Further work on the project
1	Taiwan						done	wip
2	Korea					PVD devices	done	wip
3	Korea					PVD devices	done	wip
4	Poland			done				
5	Poland				done			
6	Poland				done	Printed lighting		
7	UK				wip			
8	UK				wip	VLC		
9	France					Wip		
10	France		wip			VLC		
11	France				wip	Wip	HyperCPL OLED	
12	Switzerland				wip	Wip		
13	Austria				done			
14	Germany		wip					
15	Germany			wip				
16	Germany				wip	Printed OLEDs	wip	
17	USA	done						
18	USA	wip						
19	USA			Yes, but no immediate area				
20	USA		wip					
21	USA			wip				
22	China		wip					

Source: Noctiluca

Noctiluca enters R&D monetization phase and IP portfolio

Schematic of commercialization of OLED chemical materials



Source: Noctiluca

The company's strategy is to simultaneously implement large-scale, long-term SPD projects with global partners and **smaller but faster-to-implement commercial projects**, which are expected to take the company step-by-step to operating break-even point (BEP).

Landmark projects currently underway by the company are:

1. **JDP with a Chinese giant on the use of EIL material in OLED displays**,
2. **MTA+ (along with material sales)** and **test sales of Noctiluca materials** to the world's **largest telecommunications equipment manufacturer from China**
3. **MTA** with a Chinese manufacturer of OLED panels for use in automotive applications
4. **MTA** with a Chinese manufacturer of advanced micro-OLED arrays
5. **NDA and MTA+ negotiations** with one of the world's largest display manufacturers from China
6. **MTA** with a leading OLED panel manufacturer from Korea -> **expansion**
7. **MTA** with a leading global OLED manufacturer

8. **MTA** with one of the largest display manufacturers in Taiwan
9. **MTA and JDP negotiations with a leading OEM from Taiwan** - using NCL's TADF and partner's stack to build a comprehensive PVD offering
10. **MTA** with the world's largest consumer electronics manufacturer

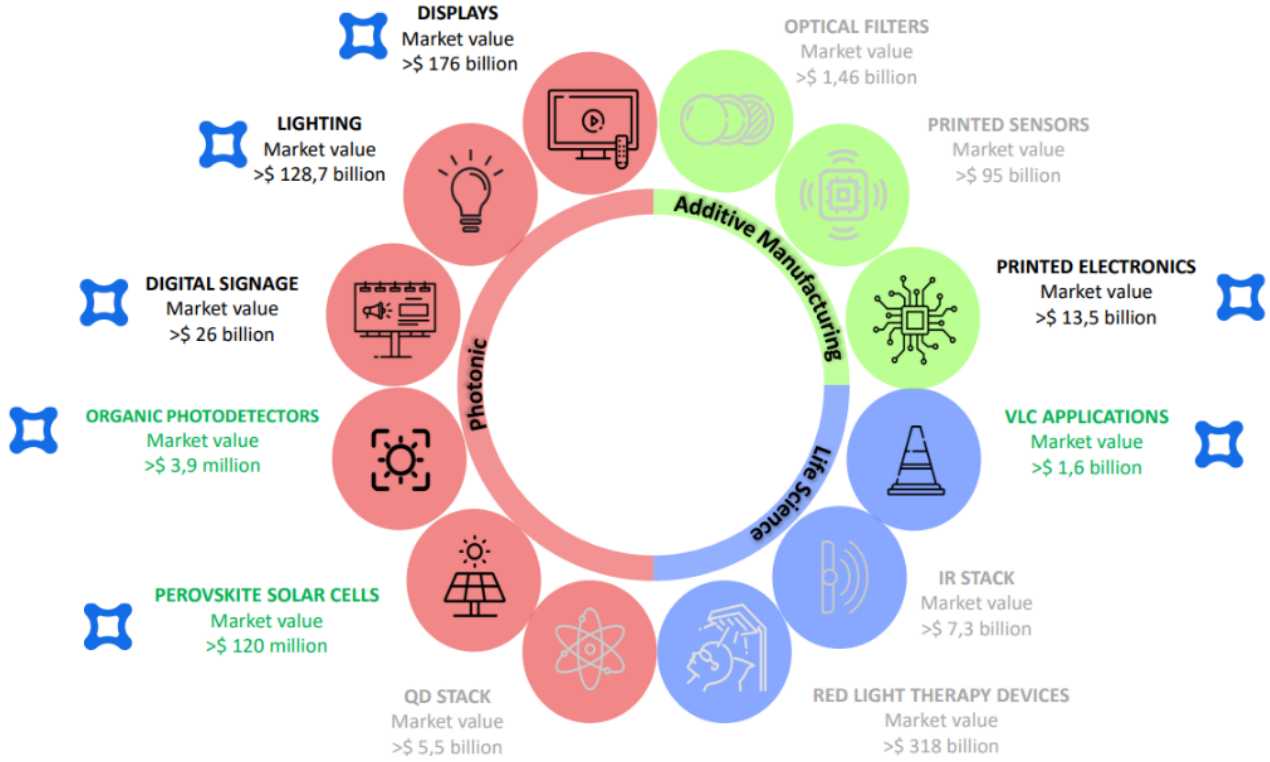
Smaller but significant projects/implementations that will generate revenue faster and co-finance technology and team development:
1. **European manufacturer of document security systems** - framework agreement for joint development, implementation of OLED device technology and material supply
2. first order for a **German customer in the Organic PV industry** - assumed conversion to recurring revenue from this customer starting in 2H25
3. **chemical CRO for a chemical raw material manufacturer**
4. **partner in Germany** - testing and development of IJP materials, some of which have already made their way into commercial portfolios
5. **collaboration with a watch manufacturer from Switzerland**, including qualification of OLED ink and planned entry into the production line in 2025
6. US advertising and marketing partner - materials testing in the context of visual applications for commercial displays and POS materials,
7. **chemical CRO for US company Inkbit** (spin-off from MIT)
8. **supply of materials** to an implementation partner for a European manufacturer
9. supplies for a Korean intermediary
10. **distribution agreement** with Japanese Filgen
11. **distribution agreement** with US-based ACS Materials

Noteworthy is Noctiluca's growing **activity in China**: Joint Development Project with subsidiary dedicated to the industrialization of printed OLED technology **TCL** (66%) and **Tianma** (33%). MTA with China-based world's largest telecommunications equipment manufacturer, MTA with a leading manufacturer of "OLED tail lights" NDA and MTA+ negotiations with a major display manufacturer, and MTA with a Chinese manufacturer of advanced micro-OLED arrays. Five new players have declared their willingness to test EIL material, including an OLED panel supplier to global brands and a leading Chinese smartphone manufacturer. Talks have also begun with OEMs about the possibility of mass-producing the material for the market

In Taiwan, Noctiluca has signed an MTA with a major display manufacturer, as well as an MTA and JDP negotiations to use TADF NCL and a partner stack to build a comprehensive PVD offering. Management is considering setting up a sales office in Taiwan to manage Noctiluca's relationships in Asia.

Currently, Noctiluca has solutions that could be applied to the display, lighting, digital signage and printed electronics industries with a combined estimated value of more than USD 340bn in these industries. In the future, management also plans to enter the organic photodetector, organic photovoltaic (perovskite) and visible light communication (VLC) applications industries.

Possible applications for Noctiluca's solutions



Source: Noctiluca

Changes in equity

Series E: The shares were taken up by holders of series E subscription warrants, the issue price was PLN 84, and they were taken up by those entitled from series E subscription warrants.

Series I: On September 30, 2024, a private subscription of 24,000 series I ordinary bearer shares was completed. The issue price was PLN 96. The issue was fully subscribed by Rubicon Partners.

Incentive program: In 2020, an incentive program was provided for key employees of Noctiluca. **Up to 250,000 Series F subscription warrants** were allocated for the incentive program, entitling them to subscribe for up to 250,000 Series F shares. The issue price of Series F shares was set at PLN 0.15 in accordance with the issue resolution. The exercise of rights from the warrants and acquisition of Series F Shares may not take place later than October 12, 2025. The right to acquire up to 150tsd units was allocated in 2021 to key members of the team, including Krzysztof Czaplicki, Mateusz Nowak and Sri Peruvemba, among others. The exact number of warrants allotted to each of the aforementioned individuals depends on seniority. The right to subscribe to the second tranche of warrants in the number of 71.75tsd units was granted in 2025 to key team members Mateusz Nowak and Ramanaskanda Braveenth, among others. The F shares to be subscribed for the warrants will be subject to a 4-year lock-up (at 25% per year), and in the event of cessation of service to the company, they will be repurchased from the employee by the company without compensation (reverse vesting).

In **June 2025, the company successfully completed an issue of 149,000 shares at PLN 90/share to professional / institutional investors**. Currently, there are no more free shares in the target capital.

Noctiluca currently has a **maximum loan limit of PLN 11mn** (PLN 2mn + conditional PLN 3mn from Synthex; PLN 3mn from Synthex for laboratory

equipment; and PLN 6mn from Rubicon Partners), **of which it is currently using nothing.**

Grants and subsidies

Noctiluca currently has **R&D grant applications of PLN 13mn** with adjudication dates in 2H25.

The company plans to submit grant applications for another PLN 27mn with planned adjudications for 1-3Q26.

Noctiluca accounts for **grants in other operating income upon completion** of the covered research (completion of the grant project).

Planned investments

Noctiluca currently has no need to invest significant resources in expanding its laboratory and production capacity. The **only CAPEX currently on the horizon stems from the development strategy adopted in 2024 to expand engineering competence**. Once a chemical material is created in the lab, Noctiluca must produce an OLED or panel containing its chemical materials to verify that the chemical is effective in the underlying OLED devices. Noctiluca is forced to send its materials to create test diodes and panels to external laboratories (mainly Korea, as Europe has very little experience with OLEDs, and laboratories in Poland offer extremely low quality for testing). Shipping materials to Korea, due to customs procedures and the waiting queue, extends the material verification process to about 120 days. However, if Noctiluca decided to invest in a printer (CAPEX PLN ~1mn, of which PLN 0.5mn can be financed from subsidies) and a sputtering machine (CAPEX USD ~1mn), then the time to verify the quality of materials in the final equipment could be carried out in Poland, lowering the cycle of material creation and verification to 80 days (additional cost savings). Noctiluca currently does not need a laboratory expansion. In the distant future, if the commercialization of the projects were successful, there would be a need for a significant expansion of manufacturing capacity in the lab.

Working capital requirements

The listed companies in the OLED materials industry show **relatively high working capital requirements** as the scale of operations increases. For example, United Display Corporation had USD 648mn in revenue in 2024, with inventory accounting for ~30% of annual sales, accounts receivable ~20% of annual sales, and trade payables ~5% of annual sales. In total, UDC had USD ~250mn frozen in working capital at the end of 2025. In the case of Solus Advanced Materials, where materials for OLEDs do not exceed 30% of sales, the value of inventory in relation to annual sales was close to 40%.

In our forecasts for Noctiluca, we also assume an increase in working capital requirements as materials sales increase (licenses do not require such a working capital commitment). We assume that, along with an increase in financial results, this could then be financed by financial debt.

How much could Noctiluca be worth in five years?

Based on the history of companies involved in materials for OLED, one may be tempted to simulate how much Noctiluca could be worth in five years, given its growth plans.

Assumptions:
- revenues in five years (in year 11 of operations) of about USD 18mn - in line with our model assumptions. UDC at this stage of development had USD 7mn in sales, Novaled had EUR 18mn, and Kyulux had USD 20mn
- Noctiluca had ~10 patent families filed at the end of 2024 and assumes filing another 10 each subsequent year. This would give ~60 patent families at the end of 2029.

At the time of acquisitions of similar companies in the industry, the valuation was at ratios of **11.89x the value of sales** in the year of acquisition and **2.98x the number of patent families filed**. In the case of Noctiluca, this would imply a goodwill of PLN 794mn in 2029 and PLN 679mn - an **average of PLN 699mn** (PLN ~400/share - with the current number of shares).

2Q25 forecasts

In 2Q25, we assume a slight increase in **sales** compared to 1Q25, and over 30% y/y. It is worth noting that the sales growth is taking place despite the strengthening of the PLN against the EUR and USD.

(mn PLN)	2Q25e	Q2'24	y/y	2025e	YTD
Revenues	0.4	0.3	31%	4	21%
EBITDA	-0.5	-1.4	-	-3	53%
EBITDA margin					
EBIT	-0.6	-1.6	-	-4	47%
Net income	-0.8	-1.7	-	-4	52%

In our view, **EBITDA** in 2Q25 will be PLN -0.5mn, and the loss will be lower y/y as well as q/q.

Forecasts, assumptions for forecasts

Below is our revenue forecast based on a list of ongoing projects by sophistication and probability of success.

Income statement (mn PLN)	2024	2025e	2026e	2027e	2028e	2029e
Net sales	**2**	**4**	**7**	**12**	**37**	**67**
Smaller projects		**4**	**6**	**9**	**13**	**17**
Client 1		0.5	1.1	1.5	1.7	1.9
Client 2		0.5	0.7	1.2	2.3	3.8
Client 3		0.9	1.1	1.6	3.4	3.8
Client 4		0.3	0.7	1.6	2.7	4.1
Client 5		0.1	0.4	0.4	0.4	0.4
Client 6		0.4	0.4	0.5	0.5	0.5
Client 7		0.6	0.6	0.6	0.6	0.6
Client 8		0.4	0.4	0.5	0.5	0.5
Client 9		0.0	0.4	0.4	0.4	0.5
Client 10		0.0	0.4	0.4	0.4	0.5
Major projects		**0**	**1**	**3**	**24**	**50**
Client 1		0.0	0.0	1.5	3.9	12.1
Client 2		0.1	0.1	0.1	4.2	8.5
Client 3		0.0	0.2	0.6	3.8	5.3
Client 4		0.1	0.2	0.6	1.9	2.7
Client 5		0.0	0.0	0.0	3.2	7.8
Client 6		0.0	0.0	0.0	3.2	7.8
Client 7		0.0	0.0	0.0	0.0	0.0
Client 8		0.0	0.2	0.6	1.9	2.7
Client 9		0.0	0.0	0.0	0.0	0.0
Client 10		0.0	0.0	0.0	0.0	0.0
Client 11		0.1	0.1	0.1	2.4	3.3

Income statement (mn PLN)	2024	2025e	2026e	2027e	2028e	2029e
Costs	**8.4**	**7.2**	**8.4**	**10.3**	**23.6**	**38.8**
Depriciation	0.9	0.9	1.0	1.1	1.2	1.3
Materials and energy	0.4	0.5	0.7	1.0	3.0	5.3
External services	4.0	3.0	3.5	4.3	14.0	24.9
Taxes	0.1	0.1	0.1	0.1	0.1	0.1
Salaries	2.2	2.0	2.2	2.6	3.6	4.7
Social insurance	0.4	0.4	0.4	0.5	0.6	0.8
Other	0.4	0.4	0.5	0.7	1.2	1.7
EBIT	**-5.5**	**-4.2**	**-2.3**	**0.7**	**12.6**	**26.7**
Net financials	-0.2	-0.1	0.0	0.0	0.0	0.0
Gross profit	-5.5	-4.2	-2.3	0.7	12.6	26.7
CIT	0.0	0.0	0.0	0.1	1.3	3.2
Minorities	0.0	0.0	0.0	0.0	0.0	0.0
Net Income after minorities	-5.5	-4.2	-2.3	0.5	11.3	23.5
adj. EBITDA	**-5.0**	**-3.2**	**-1.4**	**1.8**	**13.8**	**28.0**
adj. Net profit	**-6.0**	**-4.2**	**-2.3**	**0.5**	**11.3**	**23.5**

Balance sheet

(mn PLN)	2024	2025e	2026e	2027e	2028e	2029e
Fixed assets	**2**	**1**	**5**	**6**	**10**	**13**
Tangible assets	1	0	4	5	8	12
Intangible assets	0	0	0	0	0	0
Goodwill	0	0	0	0	0	0
Deferred charges and accruals	1	1	1	1	1	1
Current assets	**1**	**9**	**4**	**6**	**20**	**42**
Inventories	0	0	1	3	8	15
Receivables	1	1	1	2	7	13
Cash	0	8	1	1	4	14
Equity	**0**	**9**	**7**	**8**	**19**	**37**
Minorities	0	0	0	0	0	0
Long term liabilities	**2**	**0**	**0**	**1**	**0**	**0**
Debt	2	0	0	1	0	0
Short term liabilities	**1**	**1**	**2**	**3**	**9**	**17**
Debt	0	0	0	0	0	0
Trade liabilities	1	1	2	3	9	17
Net Debt	**1**	**-8**	**-1**	**0**	**-4**	**-14**
DN/EBITDA	-0.3	2.4	0.7	-0.2	-0.3	-0.5
DN/adjusted EBITDA	-0.3	2.4	0.7	-0.2	-0.3	-0.5

Cash flow

(mn PLN)	2024	2025e	2026e	2027e	2028e	2029e
Cash flow from operating activ	**-5**	**-4**	**-2**	**1**	**9**	**20**
Working capital	-1	0	0	-1	-4	-4
Cash flow from investing activities	**0**	**-1**	**-5**	**-2**	**-5**	**-5**
CAPEX	0	-1	-5	-2	-5	-5
Cash flow from financing activities	**4**	**11**	**0**	**0**	**-1**	**-6**
Dividend	0	0	0	0	0	-6
Cash flow	**-2**	**7**	**-7**	**0**	**3**	**10**
CFO/EBITDA	110%	114%	136%	55%	64%	73%
FCFF	-5	-3	3	2	14	25
FCFF/EV	**-3%**	**-2%**	**2%**	**1%**	**8%**	**16%**
FCFE	-5	-4	-2	1	9	20
FCFE/MCAP	**-3%**	**-2%**	**-1%**	**1%**	**5%**	**12%**
DPS	0.00	0.00	0.00	0.00	0.00	3.27
Dividend payment ratio	0%	0%	0%	0%	0%	50%
DYield	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**3.2%**

Ratios

	2024	2025e	2026e	2027e	2028e	2029e
P/E	-29.2	-41.5	-74.6	-	15.4	7.4
P/E adj.	**-26.6**	**-41.5**	**-74.6**	**-**	**15.4**	**7.4**
EV/EBITDA	-37.1	-51.5	-128.4	97.9	12.4	5.7
EV/EA adj.	**-32.2**	**-51.5**	**-128.4**	**97.9**	**12.4**	**5.7**
P/S	65.0	43.8	25.0	14.5	4.7	2.6
P/BV	1136.0	18.7	25.0	23.2	9.3	4.8
EBITDA margin	**-203.4%**	**-81.3%**	**-19.4%**	**14.8%**	**36.9%**	**41.9%**
EBITDA r/r change	15%	-25%	-58%	-232%	674%	103%
Net income margin	-	-	-33.5%	4.5%	30.3%	35.1%
EPS y/y change	**7%**	**-23%**	**-44%**	**-123%**	**2001%**	**107%**
Share price (PLN)	101.00	101.00	101.00	101.00	101.00	101.00
Number of shares (mn)	1.6	1.7	1.7	1.7	1.7	1.7
MCap	160	175	175	175	175	175
EV	161	167	174	174	171	161

Valuation

We base our valuation of Noctiluca 100% on the discounted cash flow method and 0% on a comparative valuation. Noctiluca will see a marked increase in sales revenue over the next three years, in our opinion, but higher results will only emerge in the long term.

(PLN)	Weight	Price
Relative valuation (PLN)	0%	0.00
DCF valuation (PLN)	100%	154.84
12M target price per share (PLN)		**154.84**

Relative valuation

In the comparative valuation, we try to compare Noctiluca's performance to OLED material manufacturers and suppliers to consumer electronics manufacturers.

	P/E			EV/EBITDA			Dyield		
	2025e	**2026e**	**2027e**	**2025e**	**2026e**	**2027e**	**2025e**	**2026e**	**2027e**
UNIVERSAL DISPLA	28.7	25.3	14.5	20.7	18.7	-	1.2%	1.3%	1.5%
SOLUS ADVANCED M	-	192.2	52.4	91.4	15.7	-	0.0	0.0	0.0
DUK SAN NEOLUX C	15.3	11.9	10.1	12.7	9.5	8.3	0.0	-	-
DIODES INC	42.6	23.7	-	11.0	8.0	-	-	-	-
VISHAY INTERTECH	145.0	16.3	-	10.3	6.3	-	2.4%	2.4%	-
IPG PHOTONICS	77.4	47.0	60.9	20.9	16.0	16.2	-	-	-
COHERENT CORP	19.3	17.1	-	13.3	13.3	-	0.1%	0.2%	-
RAMBUS INC	29.9	25.6	22.0	21.4	18.5	15.9	-	-	-
SITIME CORP	129.6	77.3	52.6	80.0	53.2	40.9	-	-	-
PHOTRONICS INC	11.8	10.3	39.2	3.8	3.5	19.2	-	-	-
SILICON LABS	210.2	53.5	30.6	106.0	42.7	20.0	-	-	-
MIN	11.8	10.3	10.1	3.8	3.5	8.3	0.0%	0.2%	0.2%
MAX	210.2	192.2	60.9	106.0	53.2	40.9	2.4%	2.4%	1.5%
Median	**36.3**	**25.3**	**34.9**	**20.7**	**15.7**	**17.7**	**0.2%**	**0.8%**	**0.8%**
Noclutica	-41.5	-74.6	324.4	-51.5	-128.4	97.9	0.0%	0.0%	0.0%
Premium/Discount	-215%	-395%	829%	-349%	-915%	453%	-100%	-100%	-100%

Source: Erste Group Research

DCF valuation

- We assume **full dilution** as a result of the share issue and 149,000 shares issued at PLN 90/share in June 2025/total number of shares to be valued at 1.713mn shares.
- We assume **net debt as of the end of 2025**, taking into account fundraising in June 2025.
- Beta 1.2 (R&D company - higher risk). **Risk-free rate of 5.5%.**

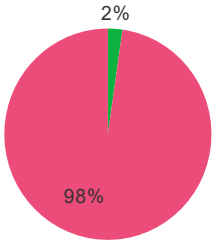
WACC calculation

	2025e	2026e	2027e	2028e	2029e	TV
Risk free rate	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%
Equity risk premium	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Beta	1.2	1.2	1.2	1.2	1.2	1.2
Cost of equity	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%
Cost of debt	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%
Effective tax rate	0.0%	0.0%	20.0%	10.0%	12.0%	20.0%
Equity weigh	100%	100%	100%	100%	100%	100%
WACC	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%

DCF valuation

(mn PLN)	2025e	2026e	2027e	2028e	2029e	TV
Sales growth	62.3%	75.4%	72.2%	210.4%	78.5%	194.6%
EBIT	-4	-2	1	13	27	83
EBIT margin	-103.8%	-33.5%	5.8%	33.7%	39.9%	42.2%
Tax rate	0.0%	0.0%	1.1%	3.4%	4.8%	8.4%
Taxes on EBIT	0	0	0	1	3	17
NOPAT	**-4**	**-2**	**1**	**11**	**23**	**66**
Depreciation	1	1	1	1	1	
CAPEX	-1	-5	-2	-5	-5	
Working Capital	0	0	-1	-4	-4	
Other	0	0	0	0	0	
FCF to the firm	-4	-7	-1	4	15	39
Discounted cash flow	**-4**	**-6**	**0**	**3**	**9**	**20**

Terminal value growth	2.0%
Terminal value	414
Discounted FCF	6
Enterprise value	**246**
Minorities	0
Net debt	-8
Other adjustments	0
Equity value	**254**
Number of shares (mn)	1.7
Cost of equity	5.6%
12M target price per share (PLN)	**154.84**
Up/Downside	53%



Terminal value growth

	0.0%	1.0%	2.0%	3.0%	5.0%
+1,0 p.p.	114.5	123.8	134.8	148.2	185.6
+0,5 p.p.	121.6	131.9	144.3	159.5	202.7
+0,0 p.p.	129.3	140.9	**154.8**	172.1	222.6
-0,5 p.p.	137.8	150.8	166.6	186.4	245.8
-1,0 p.p.	147.2	161.8	179.9	202.8	273.5

Source: Erste Group Research

Income Statement	2023	2024	2025e	2026e	2027e	2028e
(IAS, PLN mn, 31/12)	31/12/2023	31/12/2024	31/12/2025	31/12/2026	31/12/2027	31/12/2028
Net sales	**0.75**	**2.46**	**3.99**	**7.00**	**12.05**	**37.40**
Cost of goods sold	4.88	7.06	8.13	9.34	11.36	24.81
Gross profit	**-4.13**	**-4.60**	**-4.14**	**-2.34**	**0.69**	**12.60**
SG&A	4.46	6.60	5.36	6.10	7.46	18.17
Other operating revenues	1.04	0.69	0.00	0.00	0.00	0.00
Other operating expenses	0.03	0.04	0.00	0.00	0.00	0.00
EBITDA	**-3.77**	**-4.35**	**-3.24**	**-1.35**	**1.78**	**13.80**
Depreciation/amortization	-1.40	-0.95	-0.90	-0.99	-1.09	-1.20
EBIT	**-5.17**	**-5.30**	**-4.14**	**-2.34**	**0.69**	**12.60**
Financial result	0.05	-0.19	-0.07	0.00	-0.02	-0.02
Extraordinary result	0.00	0.00	0.00	0.00	0.00	0.00
EBT	**-5.12**	**-5.49**	**-4.21**	**-2.34**	**0.67**	**12.58**
Income taxes	0.00	0.00	0.00	0.00	0.13	1.26
Result from discontinued operations						
Minorities and cost of hybrid capital	0.00	0.00	0.00	0.00	0.00	0.00
Net result after minorities	**-5.12**	**-5.47**	**-4.21**	**-2.34**	**0.54**	**11.32**

Balance Sheet	2023	2024	2025e	2026e	2027e	2028e
(IAS, PLN mn, 31/12)						
Intangible assets	0.90	0.67	0.27	4.28	4.69	8.50
Tangible assets	0.85	0.19	0.19	0.19	0.19	0.19
Financial assets	0.00	0.00	0.00	0.00	0.00	0.00
Total fixed assets	**1.75**	**1.82**	**1.40**	**5.41**	**5.82**	**9.62**
Inventories	0.00	0.16	0.40	1.40	2.53	8.30
Receivables and other current assets	0.00	0.00	0.00	0.00	0.00	0.00
Other assets	0.02	0.02	0.02	0.02	0.02	0.02
Cash and cash equivalents	2.03	0.47	7.75	0.91	0.87	4.24
Total current assets	**2.86**	**1.43**	**9.17**	**3.94**	**6.04**	**20.25**
TOTAL ASSETS	**4.59**	**3.23**	**10.56**	**9.33**	**11.85**	**29.86**
Shareholders'equity	**3.31**	**0.14**	**9.33**	**6.98**	**7.52**	**18.84**
Minorities	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Hybrid capital and other reserves	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Pension and other LT personnel accruals	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
LT provisions	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Interest-bearing LT debts	0.00	1.87	0.00	0.00	0.50	0.00
Other LT liabilities	0.00	0.00	0.00	0.00	0.00	0.00
Total long-term liabilities	**0.33**	**1.93**	**0.00**	**0.00**	**0.50**	**0.00**
Interest-bearing ST debts	0.00	0.00	0.00	0.00	0.00	0.00
Other ST liabilities	1.28	1.22	1.23	2.35	3.83	11.02
Total short-term liabilities	**0.95**	**1.16**	**0.80**	**1.75**	**3.01**	**9.35**
TOTAL LIAB. , EQUITY	**4.59**	**3.23**	**10.56**	**9.33**	**11.85**	**29.86**

Cash Flow Statement	2023	2024	2025e	2026e	2027e	2028e
(IAS,PLN mn, 31/12)						
Cash flow from operating activities	-4.94	-5.49	-3.70	-1.84	0.99	8.89
Cash flow from investing activities	-0.35	-0.05	-0.50	-5.00	-1.50	-5.00
Cash flow from financing activities	6.42	3.96	11.48	0.00	0.48	-0.52
CHANGE IN CASH , CASH EQU.	**1.13**	**-1.58**	**7.28**	**-6.84**	**-0.03**	**3.37**

Margins & Ratios	2023	2024	2025e	2026e	2027e	2028e
Sales growth	-27.0%	226.1%	62.3%	75.4%	72.2%	210.4%
EBITDA margin	-499.8%	-176.8%	-81.3%	-19.4%	14.8%	36.9%
EBIT margin	-685.5%	-215.4%	-103.8%	-33.5%	5.8%	33.7%
Net profit margin	-678.5%	-222.4%	-105.5%	-33.5%	4.5%	30.3%
ROE	-193.5%	-317.4%	-88.9%	-28.7%	7.4%	85.9%
ROCE	-264.9%	-354.1%	-268.8%	-61.2%	7.8%	103.9%
Equity ratio	72.0%	4.4%	88.3%	74.8%	63.5%	63.1%
Net debt	-2.0	1.4	-7.7	-0.9	-0.4	-4.2
Working capital	-0.2	-0.7	-0.4	-0.3	-0.5	-1.0
Capital employed	1.6	1.6	1.6	6.1	7.1	14.6
Inventory turnover	-2,155.8	-87.9	-29.3	-10.4	-5.8	-4.6

Source: Company data, Erste Group estimates

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Noctiluca SA	PLNCTLC00018										

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August 04 2025

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Published by:

Erste Securities Polska S.A.
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00-103 Warsaw, Królewska Street 16
Head Office: Warsaw
Commercial Register: KRS No. 0000065121
District Court for the Capital City of Warsaw, 12th Commercial Division
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