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“World-leading supplier of lithography solutions”

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## We enable the industrialization of nanolithography

Obducat is an innovative developer and world-leading supplier of micro- and nano lithography solutions. We supply equipment's and production know how used in advanced micro- and nanopatterning processes that enables the realization of new applications and improved device performance. Obducat also offers Foundry Services to customers that follow a fabless strategy.

Our technologies are successfully used by companies within the optical and photonics-, LED and displays-, MEMS and sensor- and High Power and High Frequency component industries as well as for Biomedical devices.

# 2024 FACT SHEET

## Our nanolithography solutions provide customers with key advantages

Obducat's superior lithography tools and techniques, suitable for advanced micro and nano-patterning, enables the realization of new and enhanced products with improved performance and functionalities. We provide customers with a competitive edge through the delivery of cost-effective lithography technologies. Obducat's key offerings are focused within the areas of:

- **Nanoimprint lithography**
- **Resist processing**
- **Wet processing**
- **Foundry services**



1989

Company founded



600+

Customer installations  
worldwide

170+

Patents granted



### European base and global presence

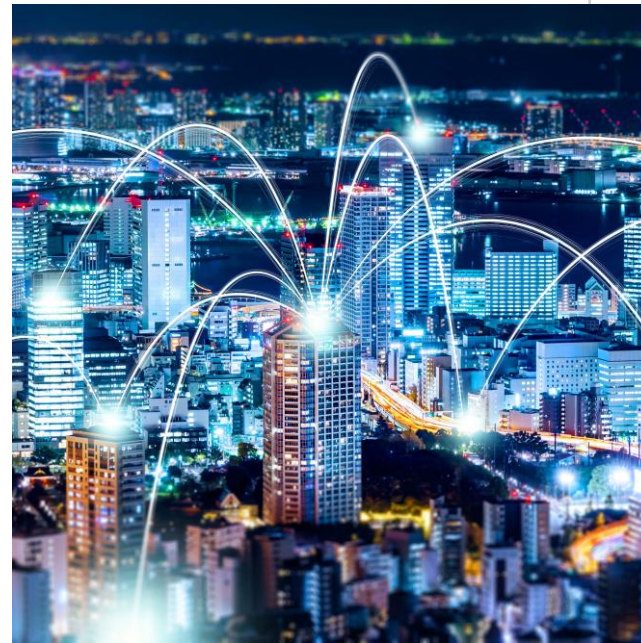
Our head office in Lund and our subsidiary in Radolfzell, Germany, are the main facilities for production, research, development and sales. Obducat also has its own local presence in the UK, Portugal, USA, Japan and China.

The company is well-known and an established supplier of production equipment to several world-leading companies within the targeted industries. The total installation base exceeds 600 systems worldwide.



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[www.obducat.com](http://www.obducat.com)



### Megatrends drives demand for Obducat's products and services

The ongoing **regionalization of semiconductor production** is supported by large investment programs in Europe and the US, among others. The regionalization is being driven mainly because of the geopolitical situation. A sharp increase in demand for semiconductors is expected in the future. This will lead to further expansion opportunities for all products and services that Obducat offers the market.

The **digitalization** of society is increasing the demand for semiconductor components. Digitally connected devices, self-driving cars, smart manufacturing, smart sensors and many other functions will generate a continued demand for a larger amounts of components in the future. For Obducat, this means that existing customers will continue to expand at the same time as new component types developed by new players in the market will utilize the benefit from Obducat's products and services.

The continued **Electrification** is another demand driver that will generate strong growth opportunities for the market that Obducat is active in. The electrification is driven by policy's aimed at minimizing humanity's carbon footprint. This creates demand especially for components made from SiC (Silicon Carbide) as well as GaN-on-Si (Gallium Nitride on Silicon).

**Sustainability** requirements with a focus on the environmental footprint of semiconductor production will be increased in the future. This will create an increasing demand for production solutions that minimize the environmental footprint and Obducat see a big potential to create a market-leading position by developing and offering lithography solutions that minimize the environmental impact.



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# Product portfolio

Obducat's advanced lithography technology enables our customers to produce high quality products at competitive cost levels. Our systems are easy-to-use fully automated configurations adapted for **High Volume Manufacturing** as well as pilot production or semi-automatic versions for **R&D purposes** within industry, institutes and academia. Obducat also offers Foundry Services for customers who follow a fabless strategy.



## Foundry services

Obducat offer exceptional process know-how in Nanoimprint lithography, based on decades of experience, and provide customers with industry leading prototyping and production services.



## Nanoimprint lithography

Obducat's user-friendly nanoimprint lithography equipment is widely known for its high quality and low cost of ownership. The company offer several different systems:

- EITRE®
- EITRE® Large Substrates
- SINDRE®
- SINDRE® Litho Track



## Significant market potential for Obducat's NIL technology

Nanotechnology is increasing its importance in new consumer products. This leads to a growing interest and activity from large global customers across various industries.

The development is largely driven by the need from the electronics industry, but also from areas such as bio- and medical technology, where there is a growing interest in the benefits that nano structuring of surfaces can bring.

In some applications, it is a matter of supplementing existing products with a surface that is nanostructured, which gives the product increased functionality and / or improved performance. In other cases, it is a matter of replacing an existing patterning method with NIL to make the production of the product more cost-effective. In addition, there are cases where NIL enables the launch of new products.



## Resist processing

Obducat offers both fully automated and semi-automated lithography systems for resist processing, which normally includes the resist coating and developing functions. A high level of customization is possible to adapt to specific customer needs.

## Wet processing

Within wet processing, Obducat offers configurable semi-automated as well as fully automated systems for cleaning, lift-off, etching or developing and other customized processes.



## INNOVATION AT THE CORE OF OBUDUCAT

Small differences in technology and process choice can significantly influence the customer's benefit of using a certain technology. To be able to protect that customer value, Obducat follows a strategy to secure patent protection for key innovations. Obducat's patent portfolio encompass more than 170 granted patents covering equipment solutions, process solutions and materials used in lithography processes.

## Research and technology focus 2023

Based on the development work carried out in recent years, the focus of the planned development work in the future will be put on further development and adaptation of current fully automated product platforms. The need for customized lithography solutions is increasing and this is a trend we expect to continue. Adaptation of equipment to new processes and consumables is an overall theme in our industry and will be driven using new materials to improve the sustainability profile of production processes. Furthermore, fully integrated lithography solutions, combining NIL and resist coating in a single lithography system, are expected to be in demand for use in the production of tomorrow's component. The development work focused on implementing new functionalities in our various machine platforms that has been performed during 2023 will lead to further product launches which will be presented in 2024.

During 2023, there has also been a strong focus on developing process and inspection technologies related to our Foundry Service offering. In the beginning of 2023, Obducat signed a 3-year contract for Foundry Services concerning continuous production of optical components. Obducat's patented NIL technology will be used in the production. The contract has a value of approximately SEK 28.6 million. To meet the increased demand for our Foundry Services there are activities ongoing to seek financial support for an expansion of Foundry Service production capacity.

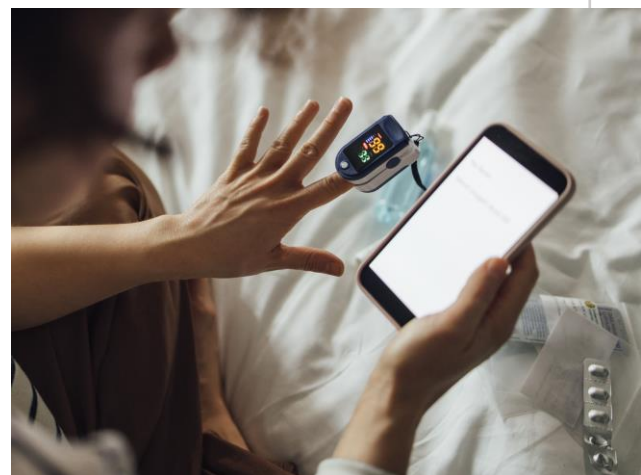
## RESEARCH & DEVELOPMENT

Obducat makes significant investments in development. Continuity in these activities are of the utmost importance to maintain a market leading position. Over the past five years, Obducat has invested approximately 17 million SEK in research and development.

**“Our development activities are focused on driving industrialization”**

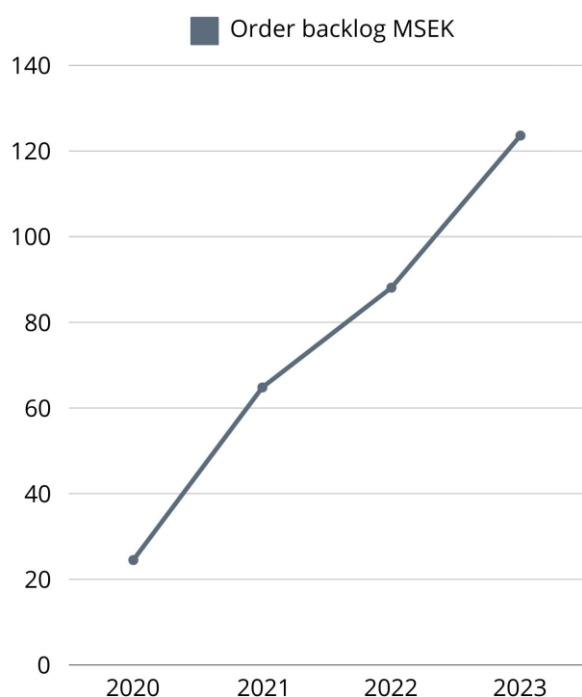
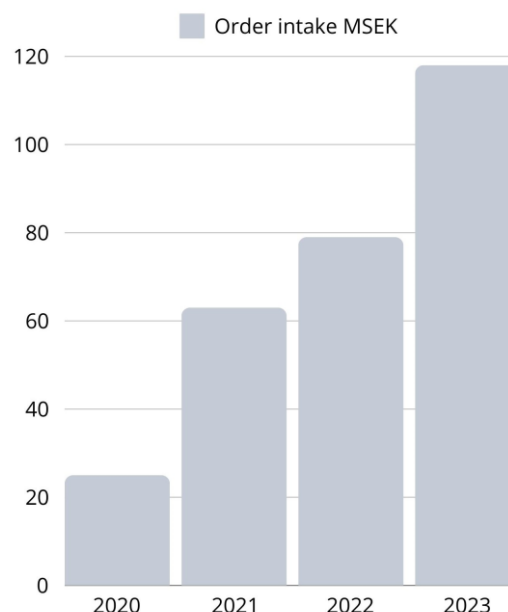
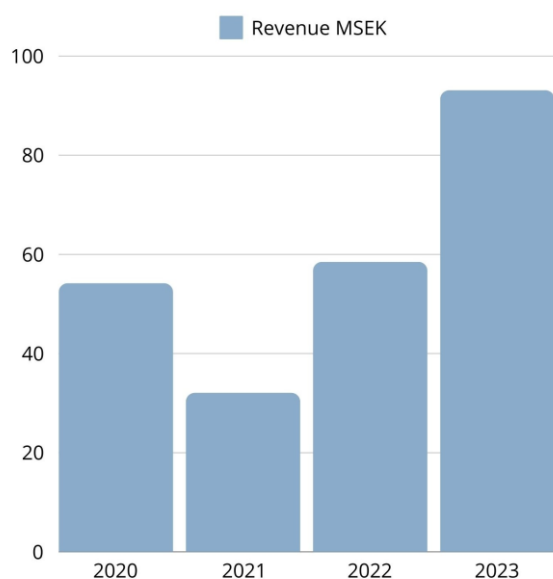
Obducat's technical solutions offer a high level of flexibility, precision and efficiency, which makes them relevant in many of the application areas that can benefit from developments in nanotechnology. Obducat's technologies are used in the application areas that are projected to see high growth in the years to come. The prioritized application areas are;

- Optics and Photonics
- MEMS and Sensors
- LEDs and Displays
- Bio- and medical devices
- High Power devices
- High Frequency devices

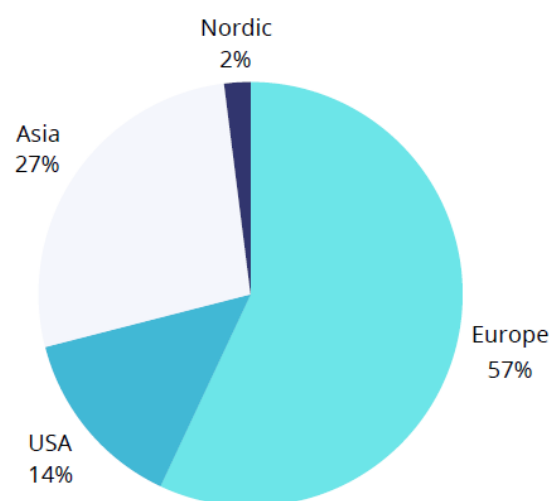


**The relevance of nanotechnology solutions in the bio- and medical device industries has increased as the need to reduce healthcare costs increase.**

# Obducat financial overview 2023



## Net sales by region 2023



## Obducat's share is listed on NGM Equity Stock Exchange

Obducat's share, OBDU B, has been traded on NGM Equity Stock Exchange ( [www.ngm.se](http://www.ngm.se) ) since April 1999. As of December 31, 2023, Obducat had a total of 9,063 shareholders. The number of registered shares amounted to 160,155,062.

The Obducat share is traded on NGM Equity Stock Exchange and the ticker symbol is **OBDUB**.