



“World-leading supplier of lithography solutions”

We enable the industrialization of nanolithography

Obducat is an innovative developer and world-leading supplier of micro- and nano lithography solutions. We supply technology, products and processes used for advanced micro- and nanopatterning enabling realization of new applications and improved device performance.

Our technologies are successfully used by companies within the LED, OLED, semiconductor, display, optical and photonics, biomedical and MEMS industries.

2021

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

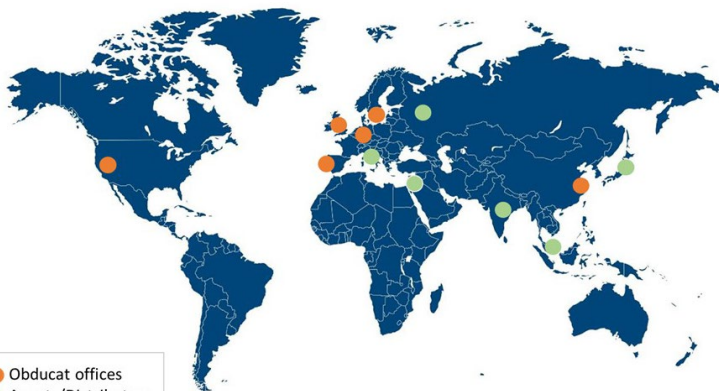


600+

Customer installations
worldwide

163+

Patents granted

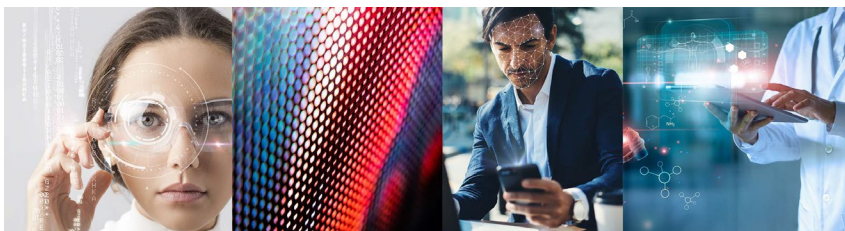


● Obducat offices
● Agents/Distributors

European base and global presence

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

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



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Megatrends drives demand for Obducat's products and services

Rapid urbanization requires "smart" cities, which in turn generates a great need for intelligent sensors enabling e.g. automated control, monitoring and optimization of energy consumption. These sensors (MEMS / Micro Electro Mechanical Systems) benefit from the products that Obducat provides.

Due to **climate change and resource scarcity**, efficient renewable energy production and more resource-efficient ways of producing e.g. electronic devices are highly sought after. Implementing nano-based technology allow progress towards more sustainable energy production and use.

Nanotechnology plays a key role for realization and commercialization of **technological breakthroughs**, such as Artificial Intelligence (AI), Augmented Reality (AR), Virtual Reality (VR), Internet of Things (IoT) and photonics. Industries such as transport, medicine, defense, entertainment, tourism and education are areas of application which benefit from these technological advances.

With **demographic change** and an ageing population there is an escalating need for new diagnostic technology to improve quality of life and reduce healthcare costs. Research and development in diagnostic technology is ongoing, and the technical advances required are strongly dependent on further advances in nanotechnology.

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 industrial production** and product development 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



Resist processing

Obducat offers both fully automated and semi-automated lithography systems for resist processing, which normally includes the resist coating and developing functions.

Wet processing

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



Significant market potential for Obducat's NIL technology

The importance of nanotechnology is becoming more important in new consumer products, why the interest and activity level among large global customers across various industries is increasing.

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 nanostructuring 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 in order to make the production of the product more cost-effective. In addition, there are cases where NIL enables the launch of new products.

INNOVATION AT THE CORE OF OB DucAT

Small differences in technology and process choice can significantly influence the customer's value 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 160 granted patents covering equipment solutions, process solutions and materials used in lithography processes.





RESEARCH & DEVELOPMENT

Obducat makes significant investments in development. Continuity in the development activities are of the utmost importance to maintain the market position as a leading player. Over the past five years, Obducat has invested approximately 24 million SEK, corresponding to 9 percent of total operating expenses, 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;

- **Optical / photonic components** ▪ **MEMS / sensor components**
- **LED components and displays** ▪ **Biotechnical / medical components**



New product and technology launches 2020

During 2020, the development work with integrated lithography modules resulted in the launch of an integration of new UV modules for the EITRE products. The new UV modules make it possible for customers to configure the Eitre systems with ultra-high UV light intensity.

This is important as there is a continuous development and introduction of new imprint materials, of which some new resist materials require ultra-high light intensity to be processed.

Obducat patented technology offer the ability to imprint over the entire substrate surface in one process step in combination with a high exposure dose, enables high throughput production, which is necessary to reach full industrialization.

During 2020 Obducat launched the all-new anti-stick technology, which enables the final step towards full industrialization of nanoimprint lithography.

Applications such as bio- and medical components and next generation of optical and photonic components such as AR products (Augmented Reality) requiring imprinting of complex nanostructures on larger substrates in big volumes, can directly benefit from this technological advancement. More product and technology launches are planned for 2021.

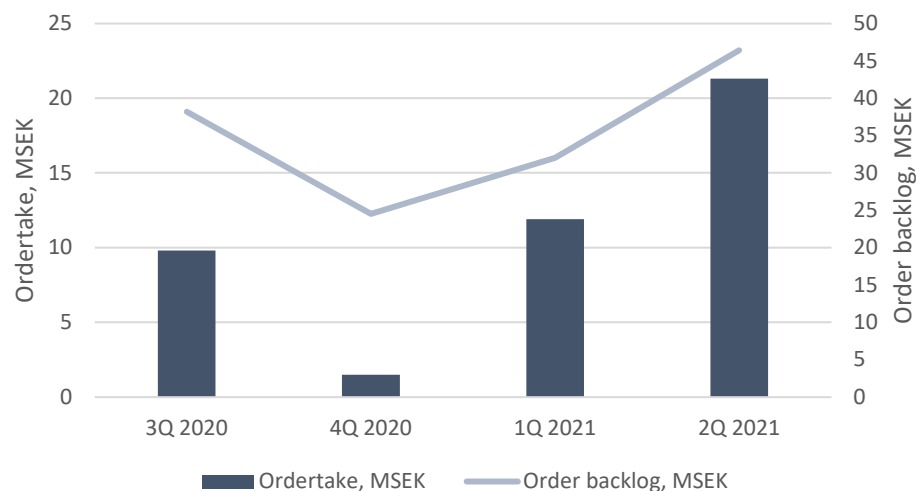


Augmented Reality is one of the application areas which can benefit from Obducats newly launched technologies and which also has the potential to reach large production volumes.

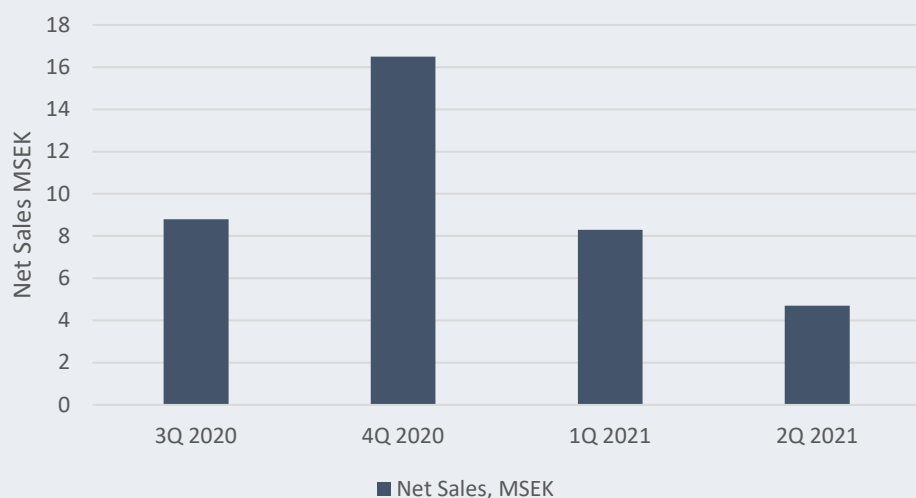


Obducat financial overview: A snapshot

Ordertake 2020/2021



Net Sales 2020/2021



Obducat's share is listed on NGM Equity Stock Exchange

Obducat's share, OBDU B, has been traded on NGM Equity Stock Exchange since April 1999. As of December 31, 2020, Obducat had a total of 9,788 shareholders. The number of registered shares amounted to 142,458,837.

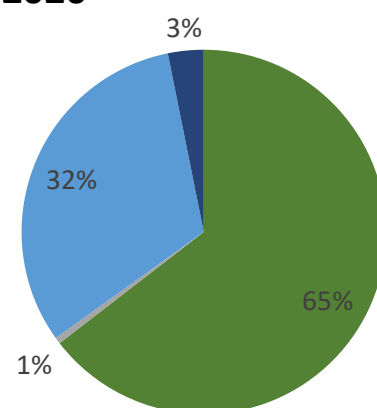
The instruments traded on NGM Equity Stock Exchange are:

- OBDU B
- OBDU PREF B
- OBDU TO14B

The warrant OBDU TO14B entitles the holder to subscribe for one new Series B ordinary Obducat share during the period April 4 - April 15, 2022 at a subscription price corresponding to 70 percent of the volume-weighted average price for the Series B ordinary share during the period March 7 - March 25, 2022, however a maximum of SEK 1.60 and a minimum of the share's quota value.



Net sales by region 2020



- Europe
- USA
- Asia
- Rest of the world