

# UPDATE

## Special

GERRESHEIMER

Customer Newsletter  
August 2018

### INTRODUCTION



Sensile Medical is a perfect fit for us as this strategic acquisition brings us a big step forward when it comes to smart devices. The company develops innovative drug products and drug delivery platforms, including digital connective functions. It is already working very successfully with customers on projects to develop devices for diabetics and patients with heart disease. Together we will successfully expand the business and accelerate our growth.

**Jens Kürten**  
Group Senior Director  
Communication & Marketing  
[j.kuerten@gerresheimer.com](mailto:j.kuerten@gerresheimer.com)



## Gerresheimer acquires Sensile Medical

By acquiring Sensile Medical AG, Switzerland, Gerresheimer is expanding its business model to become an original equipment manufacturer (OEM) for drug delivery platforms with digital and electronic capabilities. Sensile Medical develops innovative drug delivery products and platforms, including digital connective functions, for pharmaceutical and biopharmaceutical customers. The company is already working very successfully with customers to develop devices for diabetics and patients with heart disease.

“We are accelerating our growth and laying vital groundwork for the years ahead,” says Rainer Beaujean, Spokesperson for the Management Board and Chief Financial Officer. “Sensile Medical is laying the foundations for significantly expanding our business model into innovative areas of application.”

### Innovative technology taps into new markets

By pursuing its four growth drivers – stronger growth with existing and new customers, customer-focused product development and innovation, regional expansion, and additions to the service and value creation portfolio – Gerresheimer has now succeeded in taking a

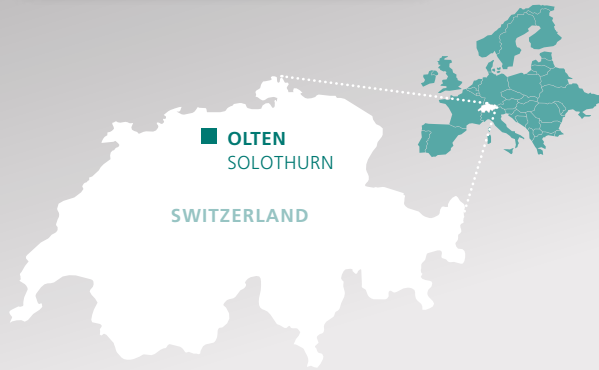
big step forward, acquiring Sensile Medical. With this strategic acquisition, Gerresheimer is exploiting an extremely innovative technology and thus expanding its capability and product portfolio. This is a building block in our long-term development toward becoming an original equipment manufacturer (OEM). Sensile Medical’s leading position in micro pump technology combined with drug delivery devices featuring electronic and connected capabilities for medical applications progresses to market readiness in specific customer projects with pharma companies. Sensile Medical is involved with pharma companies in an earlier phase of drug and therapy development.



### Partnership with Sanofi

In an already well-advanced collaboration, for example, pharma company Sanofi is contributing its many years of experience with insulin and solutions for the treatment of diabetes. A further party to the same joint project is Verily, a company in the Alphabet group with expertise in integrating microtechnology and digital health technology.

Sensile Medical naturally expects to obtain new customer projects in the future, which will further add to this project pipeline. The company is to become the Development Division, covering the field of innovative devices for the entire Gerresheimer Group.



FACTS AND FIGURES

- Founded in 2004 by two scientists
- Around 120 employees from twelve different countries
- Headquartered in Olten in the canton of Solothurn, Switzerland
- Leader in micro pump technology in combination with electronics and connected drug delivery devices for medical use
- Develops solutions for the patient-oriented delivery of liquid drugs in close cooperation with pharmaceutical and biotech companies
- Provides treatment options for diabetics, patients with chronic heart failure, Parkinson's, and other diseases
- Holds patents for SenseCore pump technology
- Strong in research, development, and technology

More about Sensile Medical: [www.sensile-medical.com](http://www.sensile-medical.com)

The product range – modularity and flexibility

High dosing accuracy – easy handling – safe drug delivery



Infusion Pump  
Small Volume



Patch Pump  
Large Volume



Reconstitution  
System



Pen

The founders and their ideas – history of Sensile Medical



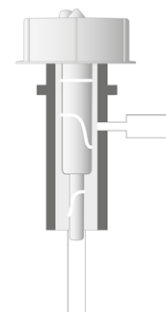
Until a few years ago, only insulin pumps existed, which were complicated in structure and very inaccurate. Patients had to administer a lot themselves. This is where diabetologist Klaus Ganz and engineer Sigfrid Strässler

got involved – the pair started to develop a new pump technology in a garage in Baar in the canton of Zug.

In 2004, they established Sensile Medical AG. Three years later, the micro rotary piston pump was developed and patented as "SenseCore Technology."

In 2007, the company relocated to Hägendorf in Solothurn and ten years later moved again to the nearby city of Olten. The new location offered more opportunities to evolve, primarily thanks to larger laboratories. The aim was for employees to be able to apply their expertise in the best possible way, as many of the activities and investigations were carried out within the company. At present, around 120 people from twelve different countries work at Sensile Medical AG.

The micro rotary piston pump



Sensile Medical AG developed a new kind of micro pump which is the key component of all products. SenseCore is small, very precise in dosage and inexpensive to manufacture as it is only made up of two plastic parts. Thanks to its high degree of flexibility, it is compatible with a variety of drugs. It is the key component of a range of pump platforms.



Sensile Medical's vision:  
**Building bridges  
 from drugs to patients**

**Sensile Medical's mission:**

**Develop key technologies for the patient-oriented delivery of liquid drugs**

Every day, Sensile Medical employees are working to improve the quality of life of patients who rely on injection aids.

We work closely with pharmaceutical and biotech companies to develop devices to deliver liquid drugs. These contain our patented "SenseCore" micro pump technology as well as electronics, software, and operating elements.

The devices are adapted to the patients and thus enable an easy and safe application. The areas of application are very diverse – demand is set to soar in the coming years.

Project with scPharmaceuticals to deliver Furosemide



**Heart failure**

Patients suffering from heart failure often have water on their lungs. This results in them needing to visit a hospital, where they are administered drugs intravenously to flush out the water. This can be a substantial burden for patients.

**Better quality of life thanks to self-treatment with the Sensile Medical patch pump**

The physician can teach patients with heart failure how to use the Sensile Medical patch pump themselves. The patient fills the device with the drug and fits it to their stomach. At the push of a button, a wafer-thin needle penetrates the skin. The micro pump transports the drug around the body (subcutaneously), which also allows the water to be flushed out efficiently. This saves the patient from an expensive and time-consuming stay in hospital.

**EXAMPLE APPLICATIONS**

**Diabetes**

Diabetics have to administer insulin themselves on a daily basis in order to keep blood sugar levels under control with their intake of food. This not only requires a great deal of knowledge about your own illness and nutrition, but it also requires some skill. Diabetics have to take blood samples each day to determine their blood sugar levels. They generally have to prick themselves around ten times a day. The amount of insulin is then calculated based on the intake of food and the patient injects the drug themselves, e.g. with a pen injector.



**Greater convenience and flexibility with the Sensile Medical patch pump**

This is where our patch pumps come into their own. The physician can adjust the pump in accordance with the therapy and it is attached to the patient's stomach or upper arm for three days with a self-adhesive bandage. When starting up the pump, the needle integrated within the device is automatically inserted and stays there for three days. This saves the patient having to prick themselves every day to deliver insulin. Depending on their meal times, the patient can administer additional doses at the push of a button.



# Sensile Medical establishes Gerresheimer's third division

Our international company is split into three divisions to which our subsidiaries are assigned:

## Plastics & Devices

Representative on the Management Board:  
Andreas Schütte

The product portfolio for the Plastics & Devices Division includes complex customer-specific products for the simple and safe delivery of drugs such as insulin pens, inhalers, and prefillable syringe systems. It also encompasses products for diagnostics and medical technology such as lancing devices and test systems as well as plastic pharmaceutical containers with closure and safety systems for liquid and solid drugs. There is a portfolio of plastic containers for prescription medicines for the U.S. retail market that meet the regulatory requirements.



Medical Systems

Plastic Packaging

Centor

## Primary Packaging Glass

Representative on the Management Board:  
Dr. Lukas Burkhardt

The Primary Packaging Glass Division produces primary packaging from glass for drugs and cosmetics, including pharmaceutical glass, ampoules, injection vials, cartridges, perfume bottles, and cream pots.



Tubular Glass

Moulded Glass

NEW

## Advanced Technologies

Representative on the Management Board: Andreas Schütte

With the acquisition of the Swiss technology company Sensile Medical, we have laid the groundwork for our third division, which will be dedicated to developing and producing intelligent drug delivery systems.

We offer drug delivery systems complete with state-of-the-art digital and electronic technologies to pharmaceutical and biotech companies. Our current portfolio encompasses patented micro pumps for self-treating diabetes or heart disease, for example.

