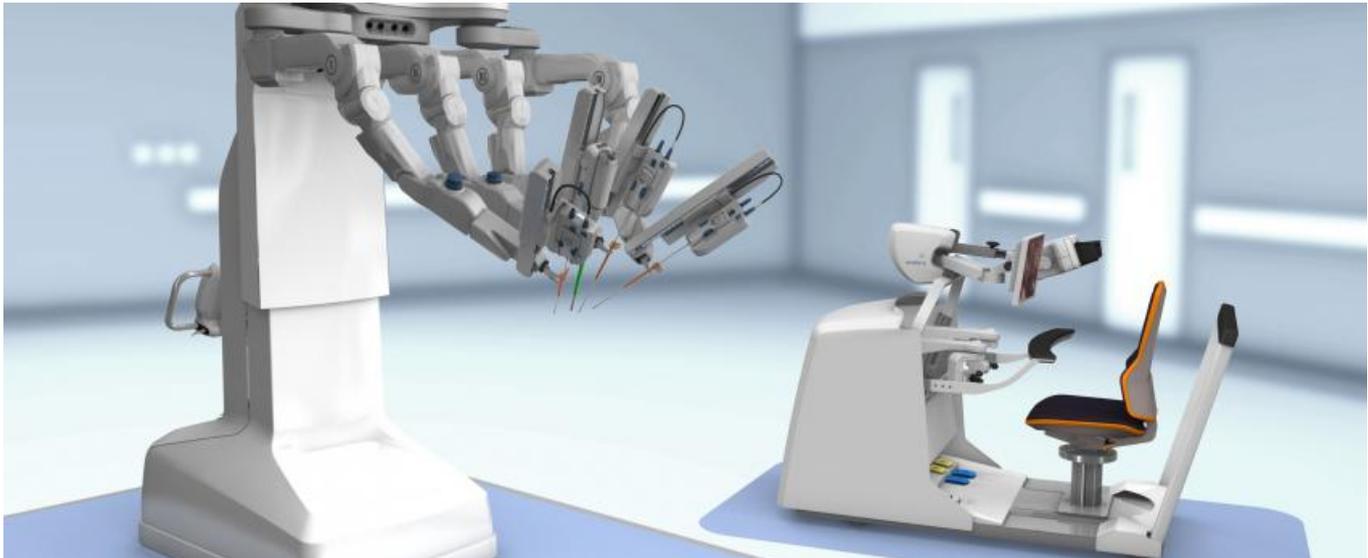


Avatera Medical becomes the newest robotic surgery group in Europe



[Elizabeth Cairns](#)



The German start-up must navigate the hazards that have felled other surgical robot developers while simultaneously dealing with a more crowded market.

Intuitive Surgical's status as the sole provider of large robotic surgery machines are coming to a close. Medtronic and Verb Surgical are gearing up to launch their systems in the coming year – but smaller companies are starting to make headway here too. German start-up Avatera Medical is the latest to get European approval, and is pleased not to be the only company with Intuitive in its sights.

“If we were the only one trying to compete against the current market leader, this would be no good,” Oliver Kupka, Avatera's chief financial officer, tells *Vantage*. “We are in favour of new people entering the market, but [we believe] there is enough space for us to grow as a company and to place the Avatera system.”

The Avatera system gained CE mark last month for use in keyhole surgery, with its initial focus on gynaecology and urology. It consists of the main surgical robot and its control unit, and various endoscopes and instruments.

Single-use

It is the instruments that underpin what Mr Kupka calls Avatera's “unique selling point”. They are single-use products, which sidestep the ongoing problems with sterilising reusable devices such as endoscopes. Poorly sterilised endoscopes have been linked with superbug infections and complications including deaths, and two US plants that use ethylene dioxide gas to decontaminate instruments [have been shuttered](#) owing to leakage of the gas.

“The single-use concept is one of the main differentiating factors we are trying to bring to the market,” says Mr Kupka. The instruments used with Intuitive Surgical's da Vinci system are sterilised and re-used up to 10 times, he says.

Avatera's approach could be appealing, particularly if and when it launches in America, though the company's efforts are focused on Europe for now.

This disposable instrument aspect will also mean a steady revenue stream, of course, as customers must replace the devices after each procedure. Mr Kupka says its pitch to customers – who will mostly be financially squeezed medium-sized to large hospitals – focuses on “economic efficiency”, and will be priced competitively. Its machines will cost around €1m (\$1.1m) – more than the cheaper da Vinci models but around half the cost of

a top-of-the-range model.

That said, Avatera has not yet launched its system. It plans a rollout in the second half of 2020, first to Germany and then the rest of Europe. In the meantime it has begun clinical trials in Germany and southern Europe that will allow surgeons to get a sense of how the system works and feed back their impressions to Avatera.

“We are looking here at a couple of hundred surgeries before we will really start the commercialisation. It’s a clinical device, so you need to have that clinical feedback from the users,” Mr Kupka says.

The group is also ramping up its production capacity, and believes that in three years’ time it can sell 250 systems to the market annually.

Competition

By then the market will be more diverse. CMR Surgical has launched its Versius machine in India and Europe in the past month, and has an innovative subscription-based pricing model ([With new unicorn status, CMR Surgical sets profitability target, September 17, 2019](#)).

Medtronic’s system will not reach the market before 2021, but competing with the world’s biggest medtech will be a major challenge ([Medtronic bets on flexibility for its surgical robots, September 25, 2019](#)).

Mr Kupka acknowledges that the market will change, but insists that there is room for the giants as well as smaller groups like CMR and Avatera. “The global robotic market is about \$4.5bn, and will triple in size at least in the next four to five years,” he says.

Until sales kick in in a meaningful way, Avatera will be funded by its seed investor and majority shareholder, Tennor Holding. Tennor is the sole backer of Avatera, aside from the group’s co-founders, Hubertus von Grünberg and Jens-Uwe Stolzenburg, a robotic surgery specialist from the University of Leipzig.

Tennor Holding recently granted a new convertible loan facility to Avatera, and has promised to provide all the cash Avatera needs to build its new production facilities in Germany as well as to launch its robot.

Mr Kupka dodges a question about the possible long-term future of Avatera as an independent company. But one of the more obvious trends in medtech this year has been large medtechs acquiring surgical robotics companies, from [J&J’s \\$3.4bn move on Auris](#) to [Stryker buying Cardan Robotics](#) for \$500m. It is possible that Tennor might see a return on its investment via a similar process.