

Martin Vitzthum

Martin Vitzthum graduated in Mechanical Engineering from Friedrich-Alexander University (FAU), Erlangen, Germany in 2012 and joined Siemens MR in the same year. A Customer Use Test team member, he is responsible for the coordination of several market entrance phases, including the software versions syngo MR E11 and E11C. Additionally, Martin was appointed the MR Compliance Ambassador in February 2016.



Erlangen, Germany



How did you first come in contact with MRI?

At a young age: just 17. My first job with Siemens was to assemble parts for X-ray systems. Being part of the Siemens family I always wanted to learn more about our products, especially for diagnostic imaging. So far, I have had an injury-free life and have never required an MRI examination. This meant that I only really got to know our MRI systems while working as an intern in the Business Line Magnetic Resonance. I still remember the first time I saw the system and heard the whistling of the cold heads: I was totally fascinated!

What is most fascinating about MRI?

Being able to visualize moving organs. Seeing is believing. Photography is a passion of mine and thus, I know about the difficulties of creating images with an ideal sharpness, brightness and contrast, especially for moving items. In MR we have technologies able to do just that. And, we are continuously working to improve these technologies and tackle new fields, such as free-breathing cardiac imaging. Looking back over the innovations of the last 30 years really makes me excited as to what lies ahead.

What was your first reaction to hearing about MAGNETOM Vida¹?

When I first heard of the plans for developing a new 3T flagship system, I was pretty excited. I still remember the MAGNETOM Aera and MAGNETOM Skyra introduction in 2009 and I felt really proud to be working within Siemens MR even, at that time, as a lowly student. Now I can see what the MAGNETOM Vida is able to do, I have another reason for pride. It's another breakthrough. The name itself sounds nice to me. It embodies life and vitality.

What is your role in the development of MAGNETOM Vida?

Before introducing a new system to the market, we evaluate its functionalities – hardware, software, application, and workflow – at a customer site by means of a clinical trial. For the new MAGNETOM Vida I was in charge of coordinating this clinical trial.

How does such a clinical trial work?

The German Medical Devices Act requires that clinical trials initially be conducted in a non-clinical environment, protected from the gaze of all but those most closely involved in such a top-secret project. After all, we are dealing with a system not yet on the market that is kept undercover right up to its official launch, known only to a few, and even then only by a code name. A clinical trial lasts between three and four months before the system receives the CE label.

Siemens is responsible for the setup, organization, and execution of the clinical trial, which is split into two phases – the preparatory phase and the execution phase (starting with the first scan at the customer site). We work closely with our clinical partner in this process.

Approximately six months before the installation of the new system at the institution of our clinical partner, we both set up teams to closely collaborate on the upcoming trial. The teams initially meet to establish a common understanding of the goal of the clinical trial and the necessary steps ahead. At several meetings during the following weeks and months, a range of documents are finalized. Siemens acts as the coordinator of all these activities, but the input here from our clinical partner is essential. A clinical investigation plan is drawn up: It describes the examinations to be performed as well as all important boundaries such as including and excluding criteria for patient and volunteer exams. During this preparatory phase, Siemens remains in close contact with the German Federal Institute for Drugs and Medical Devices and with the corresponding ethics commission where the clinical trial has to be registered. A positive decision by both authorities allows us to start the execution phase.

And how is the clinical trial for MAGNETOM Vida set up?

We work alongside our clinical partner the Diagnostic and Interventional Radiology Department of the University Hospital Tübingen (UKT). It sounds obvious perhaps, but our relationship with our clinical partner is exactly as the name implies: a partnership. Professor Konstantin Nikolaou and his team were very excited to be the first

¹ 510(k) pending. The product is still under development and not commercially available yet. Its future availability cannot be ensured.

users worldwide to receive the new MAGNETOM Vida in a prototype status and to perform the first scans at their institute.

In May 2016 we began developing a joint understanding of our shared goals and of each party's needs for this phase. Professor Mike Notohamiprodjo has been the principal investigator of this clinical trial and we wanted him and his team to be very close to the system from the very beginning. Therefore, prior to the start of the clinical trial, we invited technicians from radiology and neuroradiology to Erlangen for a first training on the new system. At that time, the system had a code name and was kept under cover to hide it from visitors and guided tours in our manufacturing location. Secrecy was paramount. During these first tests on the enigmatic system we had fruitful discussions on several topics, responding to initial user feedback to make further improvements to functionalities.

Thanks to a very effective, mutually trusting collaboration between all parties on site – our clinical partner (UKT) and the national authorities – we were able to finalize all negotiations and registrations in time, thereby enabling a first scan to be performed in December 2016. Since then, the team at UKT has been performing scans in line with the clinical investigation plan. But this success story would not have been possible without the commitment and enthusiasm of the team at UKT, for which we at Siemens are extremely grateful.

What most motivates you about your job?

Cooperating with our MAGNETOM users and getting feedback is of great importance for our business. Such close cooperation via Clinical Trials or Customer Use Tests help both parties to improve – the user to improve with our help, for example, image quality and workflow, and Siemens Healthineers to learn about our user's evaluation, acceptance, and wishes for our products. Knowing we have helped our users through such collaboration and being able to learn about the needs for future projects is something that makes me feel very motivated in my job. Being part of this great Siemens Healthineers team really makes me proud.

What would you do if you could do for one month whatever you wanted?

Understanding our customers' aims and ambitions is of great importance for future developments. Therefore, I'd take the opportunity to spend time at our MAGNETOM user's institutions. Outside of work, I'd go travelling and explore my passion for photography even more deeply. I would love to go to the colder and more extreme regions of the world, such as the Arctic or Alaska. I am excited at the thought of confronting an untamed but beautiful natural world, and the opportunity to make the best photographic record of such visits that I can.