



Is your ambition to design technological innovations for the best possible care? Are you ready for a next step to become a professional in this area? The two-years post-master program Qualified Medical Engineer might be a good fit for you!

## QME (Qualified Medical Engineer) in training (40 hours)

The School of Medical Physics and Engineering Eindhoven (SMPE/e) at the Eindhoven University of Technology (TU/e) is looking for a PDEng candidate for:

### Xeltis, Eindhoven

#### PDEng designers program QME

The post-master program Qualified Medical Engineer (QME) of TU/e is a two-years PDEng designers program in close co-operation with hospitals and companies. This program fulfills the growing need of professionals working on the interface between clinical care and technological innovation. During the program trainees work from day one on relevant projects, in parallel to an extensive training program of courses and workshops. The program is recognized by the Dutch government and leads to the degree of Professional Doctorate of Engineering (PDEng). Our vision is that people can only be trained in daily practice. Thus, the program is designed such that trainees carry out projects and spend most of their time in healthcare institutes and companies. In parallel they get training by the university. The trainees receive guidance from both the company/healthcare institute and the TU/e.

Next to smaller projects, trainees carry out one major QME design project. This project should have a clear link with (clinical) care. The trainees apply a systematic and structured approach and deliver concrete results, from prototype to actual implementation (depending on the overall goals). On this project the trainee will be evaluated by a formal committee.

#### Xeltis: Living Cardiovascular Replacements

**Xeltis is a clinical-stage medical device company with the most advanced polymer-based restorative devices for cardiovascular treatment. Xeltis' devices naturally evolve into living blood vessels or heart valves, when colonized by the patient's own tissue. This therapeutic process is called Endogenous Tissue Restoration, or ETR. Xeltis' restorative technology is the world's most advanced polymer-based technology platform for cardiovascular restoration – through ETR.**

Today, patients who need cardiovascular replacements suffer repeated procedures, complications or take long-term medication, because current options have severe limitations. This is especially evident in patients who need artificial heart valves, coronary artery bypass grafts and hemodialysis access grafts.

Endogenous Tissue Restoration (ETR) is a new therapeutic approach, enabling the patient's own body to naturally restore a new blood vessel or heart valve. With ETR, the patient's natural healing system develops tissue that pervades Xeltis' device, forming a new, natural and fully functional blood vessel or heart valve within it. As ETR occurs, Xeltis implants are gradually absorbed by the body. ETR is enabled by bioabsorbable polymers based on Nobel Prize awarded science.

Xeltis devices work as normal heart valves or blood vessels once implanted. New tissue forms around and inside the device to develop a new, living, heart valve or blood vessel. Xeltis devices absorb over time, leaving patients with a natural, healthy and functioning heart valve or blood vessel.

## QME trainee at Xeltis

Xeltis is looking for a QME trainee to work in their dynamic research environment towards the clinical realization of Xeltis' revolutionary restorative medical devices.

At Xeltis, we recognize that people make a difference. We are a young, dynamic, international team of professionals dedicated to improving patients' lives through innovation. The QME traineeship at Xeltis is a meaningful traineeship for a high-potential candidate in a dynamic and ambitious company with a close relationship to the university and healthcare institutes.

## Qualifications of the candidate

We are looking for an ambitious Biomedical Engineer, (Bio/Electro)Mechanical Engineer or comparable (MSc or an equivalent university degree) who is very motivated to combine work (on projects) with (hands-on) learning during an intensive 2-years training program (post-master PDEng).

- The candidate is eager to solve (clinical-)technological problems and to closely work together with professionals of other disciplines (and other levels, too), both at the company as well as in a clinical environment.
- The candidate has a design-oriented attitude and affinity with the medical technology domain.
- The candidate preferably has
  - deep knowledge of computational modeling (CFD, FEA, and preferably FSI) derived from medical imaging modalities (cardiovascular focus is a plus)
- and/or
  - deep knowledge of cardiovascular physiology and reproduction of physiologic conditions via bioreactor design.
- Ability to work in a R&D team and interested in gaining clinical experience.
- For the QME education program, it is required to be fluent in spoken and written Dutch (level C1 or C2);
- For projects at Xeltis, it is necessary to be able to speak and write English fluently.

Potential candidates with working experience are also welcomed to apply for the position.

## Employment

This is a 2-years temporary position at Xeltis in Eindhoven, the Netherlands (full time, 40 hours per week):

- The QME trainee will be full-time employed for 2 years at Xeltis (for a gross monthly salary of €1970).
- For training and education, the QME-trainee has for 2 years a guest employment (of 0.0 fte) at TU/e as a Technologisch Ontwerper in Opleiding (TOIO).

For more information about Xeltis (subjects for projects and terms of employment), please contact Mohammed El-Kurdi: [mohammed.elkurdi@xeltis.com](mailto:mohammed.elkurdi@xeltis.com).

For more information about the QME program, check the QME website [www.tue.nl/qme](http://www.tue.nl/qme) (smpee.qme@tue.nl) or contact Ivonne Lammerts: [i.m.m.lammerts@tue.nl](mailto:i.m.m.lammerts@tue.nl)

## Start QME program

The QME trainee will start at Xeltis (and with the 2-years QME program) on March 1st, 2022.

## Application

We invite you to submit a complete application that includes:

- Cover letter in which you describe your motivation and qualifications for the position.
- Curriculum vitae.
- Diploma's with supplements, including the lists of records/courses from your previous education (BSc, MSC and other certificates).
- Brief description of relevant projects.

Please submit the application a.s.a.p. to the QME office: [smpee.qme@tue.nl](mailto:smpee.qme@tue.nl), before November 29<sup>th</sup>.

Note, that the first job interviews with QME (via Teams on 9 December (10.00-12.00h), 10 December (12.30-16.30h) and 13 December (12.30-14.30h) are in Dutch (level C1/C2). Further interviews with Xeltis (after December 13<sup>th</sup>) are in English.