

Entrepreneurial ID «venture leaders» 2007



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Twinkle tech, timekeeper of the nanoworld

Revolutionary measurement tool for nanostructures yielding very high spatial (nanometer) and time resolution (picosecond).

Industry: Nanotechnology

Biography

In 2003, I started my Ph. D. in physics in the field of characterization of semiconductor based nanostructures using an innovative measurement tool which was fully developed in our lab.

Up to 2007 I've been exploiting the possibilities of our tool for my thesis and improving its performances.

Driven by the fact that our measurement tool has a very high potential and that launching a company represents the perfect way to go on after my PhD thesis, I decided last year to commercialize our tool. I participated in the "Venture Challenge" course of Venturelab where the project has been chosen among more than 20 projects as a case study and I was able to work with four colleagues on the first business plan. The work done during the Venture Challenge course helped me in raising a private fund to pay salaries during the first months of activity of the company. Currently I'm finishing my Ph. D. thesis and preparing the launch of the company.

Company / project

Nanotechnology is likely to be the key technology of the future. However, there is a lack of adequate measurement tools for the nanoworld retarding the advancement of the technology.

We provide a revolutionary tool based on an electron microscope, yielding *nanometer spatial resolution* and *picosecond time resolution* which *are* the scales of the nanoworld.

Twinkle Tech will be founded in September 2007 by Dr. Jean Berney, an EPFL colleague and myself. During the first 6 months there will be only two fulltime employees and then we expect a gradual increase to 12 by 2011. The company will stay at EPFL in 2007 and move to its own headquarters in 2008. We have already raised an INNOGRANT to pay salaries during the first 6 months of activity. We plan to raise investor money in 2008 to finance R&D activity. We are already working on a miniaturization of the heart piece of our tool, the electron microscope, and expect a prototype by the end of this year. This miniaturized microscope will make us less depending on manufacturers and increase the gross margin.

Our target customers are semiconductor industry R&D laboratories (quality control), academic institutions and the gemology market. Based on first estimates, the break-even is foreseen for 2009 and we expect total revenues of 6'900'000 by 2011.

We are looking for business partners and potential clients in the USA.