

## Entrepreneurial ID «venture leaders» 2008



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**Celeroton:** The company Celeroton designs, manufactures and sells ultra-high speed electrical drive systems

*Industry:* high-tech (power electronics / electrical drives)

### *The venture leader*

My personal motivation to become an entrepreneur arose during my PhD at the Power Electronic Systems Laboratory at ETH Zurich in close collaboration with a former ETH spin-off company. During that time, breakthroughs from ongoing PhD research in the area of ultra-high-speed electrical drive systems of my colleague have triggered strong industry interest and thus we highly believe that there is a market potential for products and engineering in that field. Our goal is to turn these research results into commercial products which satisfy customer's needs in emerging markets. The present three Letters of Intent have further encouraged us to start our own venture.

### *The Company / project*

**Product:** Celeroton will design, manufacture and sell **ultra-high speed electrical drive systems** consisting of an electrical machine and control electronics.

**Technology:** The technology behind Celeroton's ultra-high-speed electrical drive systems has been developed at the Power Electronic Systems Laboratory of the Swiss Federal Institute of Technology (ETH) Zurich. Currently, there are two patent applications in preparation.

**Customer benefits:** Miniaturized ultra-high-speed electrical drives resolve several industry needs such as (i) highly lightweight and compact systems which enable the design of next generation distributed and portable systems, (ii) increase in productivity as the increased rotational speed leads to higher cutting speed in the micro machining sector and therefore to higher throughput of the production plant and (iii) higher efficiency as for example the better controllability of compressors for various applications.

**Target customers:** The companies products will be sold to original equipment manufacturers (OEMs) in the medical industry, spindle market, the energy conversion sector and to manufacturers of compressors in HVAC automotive applications.

**Market:** The European HVAC automotive market is estimated to CHF 5.8 billion in 2013.

**Project status:** Business preparation is underway since the middle of 2007. The company will be incorporated in the upcoming months.

**Financing:** The seed phase will be carried out with own money (FFF). Celeroton also plans to carry out financing rounds in order to raise its business.

Celeroton is looking for strong partners, such as OEMs for joint-developments, as well as for investors for financing.