

Media communiqué

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«Venture 2008»-Prize awarded to Optotune

Winning a business plan competition with «artificial muscles»

Last Wednesday at ETH Zurich, the winners of the business plan competition «Venture 2008» were announced. Ten of 101 business plans were distinguished and the winner amongst them, receiving prize money of 60,000 Swiss Franks, is Optotune, an ETH Zurich spin-off company, which is now part of Empa's new business incubator in Dubendorf. There, Optotune is developing adaptive optical elements, in particular a focus tunable lens, based on electro-active polymers (EAPs) – so called «artificial muscles» – imitating the working principle of the human eye.

Already in January, Manuel Aschwanden and his Optotune-Team were chosen to be amongst the ten winners of the initial phase of «Venture 2008». This competition, initiated in 1998 by ETH Zurich and the strategy consulting firm McKinsey & Company, promotes many promising new business ideas and plans. The prize committee awarded Optotune 2,500 Swiss Franks for its business idea to develop innovative optical systems for microscopes, photo or video cameras and, in particular, cellular phones.

In the second phase of the competition, a thorough business plan had to be prepared and presented to a committee of experts. Last week, at ETH Zurich, the best ten business plans amongst 101 participating competitors – a new record in the ten years history of «Venture» – were rewarded with prizes totaling 150,000 Swiss Franks. The winning prize of 60,000 Swiss Franks was awarded to Aschwanden's Optotune-Team. «We were already extremely happy to be amongst the first five chosen», said Aschwanden, who plans to invest the prize money in new productions facilities and materials. His goal is to use new revolutionary techniques and «build a growth-oriented company, which can hopefully create many jobs in Switzerland».

Compact and cheap zoom thanks to «artificial muscles»

Optical devices such as microscopes or photo and video cameras usually contain a complicated system with several rigid lenses with fixed focal length. In order to change the magnification – to zoom –, complicated and consequently expensive positioning mechanisms are needed. In the ETH Nanotechnology Group, under the direction of Andreas Stemmer, Aschwanden and his colleague David Niederer developed a soft lens with seamlessly variable focal length. The trick thereby is that the curvature of the lens can be controlled by applying voltage to the EAP lens, thus influencing its refractive behavior.

In early 2008, Aschwanden and his colleagues moved with their spin-off firm Optotune to Empa's new business incubator in Dubendorf, where they plan to further develop the EAP technology for optical systems,

together with Giovanni Terrasi's team, Head of Empa's «Mechanical Systems Engineering» laboratory. Applications for this kind of innovative optical systems seem to be plentiful according to Aschwanden. Ultra-thin cellular phones with a built-in optical zoom and microscopes with only one adjustable objective are some examples; others are photo and video cameras which can be manufactured more compact and economically thanks to the new technology.

Role model for researchers and engineers who wish to found a company

In addition to the support Optotune receives from Empa, the company obtains funds since early 2008 from the Swiss Innovation Promotion Agency (KTI). And now the award for its excellent business plan also injected cash into Optotune's finances. Mario Jenni, Head of Empa's new business incubator, is pleased that one of the first «tenants» in this new facility won such a prestigious prize. «By winning the venture competition Optotune raised the bar for start-ups», he said, and hopes that the example of Optotune will encourage other researchers to dare take steps to start their own business at Empa's business incubator.

Venture – from a business idea through a business plan to a start-up company

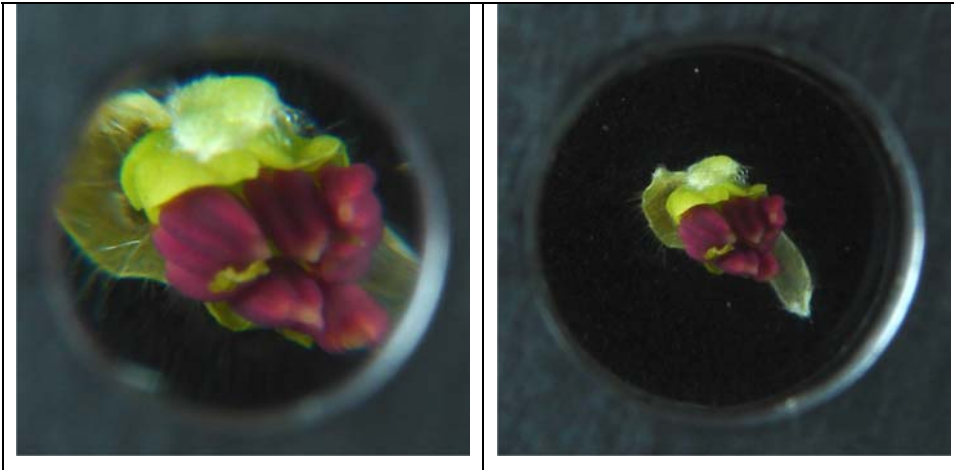
The Venture-competition, which was initiated by ETH Zurich and McKinsey & Company and is backed by numerous Swiss companies, took place in 2008 for the 6th time. Start-up companies must convince a committee of approximately 80 persons – entrepreneurs and venture capitalists – of the value of their business ideas and business plans. The total prize money amounts to 150,000 Swiss Franks. In the first phase, the best ten business ideas are rewarded 2,500 Swiss Franks each, and in the second phase, the best business plan is distinguished with an award over 60,000 Swiss Franks. Altogether, since 1988 more than 170 newly established companies employing today around 1,700 people emerged from the competition. Further information is available on www.venture.ch

Further information

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When applying voltage to the EAP lens, its refraction behavior– and therewith its magnification – can be controlled seamlessly variable. Left, without voltage, right with connected voltage. (Picture: Optotune)



The winning team of the Venture-competition 2008: (right to left) Manuel Aschwanden, David Niederer, Mark Blum, and Peter Vonesch from the ETH-spin-off Optotune, which is located since early 2008 in Empa's business incubator in Dübendorf. (Picture: Venture)