

TOP THREE
ENGINEERING

1. 9T LABS

ZÜRICH, RANK 3

2. CREAL

ÉCUBLENS VD, RANK 4

3. MIRAEX

LAUSANNE, RANK 22

PUBLIC VOTING

SYNTHARA

ZUG, WWW.SYNTHARA.CH

Miraex: Photonic sensors and quantum solutions

The minimum one needs to know: Light particles contain 100,000 times more energy than electrons and are, therefore, much more robust and less prone to failure. Miraex takes advantage of this fact.

“Our sensors use photons instead of electrons and can, therefore, be used under the toughest conditions,” emphasizes

Clément Javerzac-Galy, co-CEO and co-founder.

The Frenchman did his doctorate in Lausanne and founded a company in 2019 that plans to do much more than produce ultra-reliable measuring instruments that detect anomalies in the nuclear and space industries. “Our chips can be used to make quantum computers more efficient,” claimed Javerzac-Galy.

Quantum computers are seen as a possible key technology of the 21st century. “At first, I thought that to set up a company in this field, I would have to move to Silicon Valley,” he said, “but at EPFL, I found everything I needed.” First and foremost, two well-trained and highly motivated co-founders.



81 EMBION TECHNOLOGIES

ÉTOY (VD), FOODTECH

HTTPS://EMBIONTECH.COM

Embion's technology platform, developed at EPFL, enables organic waste to be chemically upgraded to probiotic food suitable for humans and animals. The first product, made from brewery waste, hit the market last summer. Shortly afterward, the Vaud firm won the Asahi Group – the seventh largest brewery in the world, with beer brands Pilsner Urquell and Peroni – as a customer and investor.

82 INERGIO TECHNOLOGIES

LAUSANNE, ENGINEERING

HTTPS://INERGIO.CH

The fuel cell is considered to be one of the most promising technologies on the way to a sustainable future. Inergio, a spin-off from EPFL and the School of Business and Engineering Vaud, has now succeeded in significantly miniaturizing one of the most efficient fuel cell technologies – the solid oxide fuel cell. The result is an autonomous power storage system with 20 times the energy density of a lithium-ion battery.

83 CAPSKIN

ZÜRICH, ENGINEERING

WWW.CAPSKIN.COM

When a shoe pinches, the wearer feels pain. How this happens and what exactly happens inside the shoe have not yet been established. But now, ETH spin-off Capskin has developed a sock equipped with thin, stretchable 3D motion detection sensors that record in detail what is happening under the leather. Potential customers are the shoe industry and manufacturers of special orthopedic shoes.

84 EARLYSIGHT

LAUSANNE, MEDTECH

WWW.EARLYSIGHT.COM

Many eye diseases – for example, age-related macular degeneration and glaucoma – begin with the degeneration of the cell structure of the retina. But until now, this impairment has not been visible with the available diagnostic devices. The imaging technology developed by EarlySight now enables a 10 times more detailed view of the retinal tissue.

85 COMPPAIR TECHNOLOGIES

LAUSANNE, ENGINEERING

HTTPS://COMPPAIR.CH

Fiber-reinforced plastics (FRP) are used when a component must have low weight with high rigidity. However, unfortunately for engineers, parts made of FRP are also very sensitive. EPFL spin-off CompPair, founded in 2020, wants to change that. The Lausanne team has developed an FRP that can heal itself: Fatigue cracks and impact damage can be repaired in just one minute through the application of heat.

86 LEGARTIS TECHNOLOGY

ZÜRICH, ICT

WWW.LEGARTIS.AI

Legartis' clients – law firms and legal departments – use the AI-based tool to review contracts; for example, non-disclosure agreements (NDA). Legartis classifies and checks an NDA within a few seconds, relieving employees of the repetitive work. Other typical use cases may include the search for specific clauses in extensive contracts and the review of contracts for compliance with legal requirements and other guidelines.