

# Corporate Profile



**SYNOVA**

Innovative Laser Systems

# Location

**Synova is located at Lausanne, in the western, French-speaking part of Switzerland, on the shores of Lake Geneva, one of the biggest and most beautiful lakes in Europe.**



# The Origin of Synova

The origin of Synova is related to an invention made at the Federal Institute of Technology in Lausanne, at the beginning of the nineties.

The idea was conceived to use a water jet, in which the laser is guided by total reflection for material processing. Using this approach, the most efficient cooling method for laser cutting was developed.

Industrial applications, such as cutting, drilling, and grooving of heat sensitive materials, have been successfully developed.

As a result, the company Synova was founded

« Synova » is a composed word of « Systèmes Innovatifs », meaning Innovative Systems



# History

**Synova SA**  
is founded

**1997**

**Synova** receives many national and international awards for it's invention.

**Synova** starts building equipment using the water jet guided laser

**1998**

**Synova** begins the development of Laser Dicing (cutting of silicon wafers).

**Synova** has sold and installed 30 systems worldwide

**Synova** launches the development of fully automatic equipment adapted to specific industries

**2000**

**Synova** obtains important orders from prestigious companies in the electronics industry

**Synova** starts the development of a stencil laser

**2002**

**Synova** delivers systems to medical companies

**2003**

**Synova** moves to new premises

**Synova** patents the water film device

**2004**

Setting up of **Synova** Asia/Pacific



# Products

**Laser Cutting System**



**Laser Edge Grinding System**



**Synova provides fully automatic production equipment for the semiconductor, electronic, medical, solar energy, FPD, and automotive industries**

**Laser Dicing System**



**Laser Stencil System**



**Synova manufactures standard machines as well as customized solutions**

**Synova is able to respond to any demand in automation and process-control due to a high degree of modularity**

# Research and Development

Process	Application	Equipment
Fundamental process research, material analysis, researching new ablation processes	Development of customized applications, processing of samples, demonstrations	Development of new equipment, realization of prototypes
	<i>Running projects</i>	
<i>Water jet guided UV laser</i>	<i>Laser dicing of thin wafers</i>	<i>Laser Dicing System for 300 mm wafers and front-end applications</i>
<i>200 W green laser</i>	<i>Laser cutting of hard materials (CBN, synthetic diamond)</i>	<i>Multiversatile Laser Cutting System for inline-production</i>
<i>Laser-water jet with 10 micron diameter</i>	<i>Laser dicing of compound semiconductor (GaAs, SiC)</i>	<i>Laser Cutting System for tube cutting</i>
<i>Fundamental mode IR laser</i>	<i>Laser cutting of stencils for PCB &amp; OLED display manufacturing</i>	<i>High-speed Laser Cutting System for metal foils</i>
<i>Continuous-wave IR laser</i>		
<i>LMJmed for surgical application</i>	<i>Laser cutting of PV solar cells</i>	

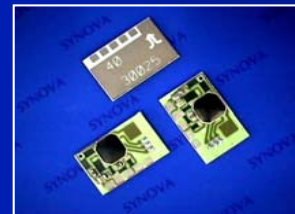
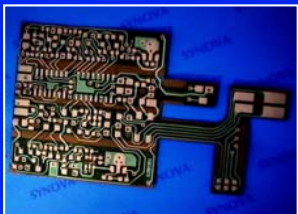


# Applications

**Synova's** application laboratory, equipped with several Synova machines and diverse laser sources, is available to demonstrate the water jet guided laser's feasibility for a customer's specific problem.

**Synova's** application engineers are able to develop solutions, fulfilling the customer requirements.

**Synova** places the highest priority to adapting the process for the individual needs of the customer.  
With every machine Synova sells a solution.



# The Synova Team

- **Synova** is founded and owned by the inventors of the water jet guided laser.

- **Synova** counts as of January 2005 40 employees, primarily physicists, microtechnic and electrical engineers.

- **Synova** concentrates on application development. While the production is largely outsourced, Synova controls final assembly, testing and quality.



# Facilities

**Synova** boasts new 3000 m<sup>2</sup> facilities

The two-story building contains final assembling, application labs, sales and administration



# Sales and Service

**Synova** has subsidiaries in the USA, Hong Kong, Korea and Japan. Distributors are located in China, Taiwan, Singapore and Philippines.



**Synova's** local partners are not only sales engineers, but process and equipment experts allowing perfect customer support.

# Customers talk about Synova



**Uwe-Rolf Simon**  
Infineon Pretzfeld

*"Synova has controlled the process  
with a production-reliable machine"*

*"The (**Synova**) technology is excellent  
and we have had an excellent experience"*

*"We have been able to optimize  
the production – we are very satisfied"*

*"We have found the ideal solution  
for the wafer cutting"*

*"We have found in **Synova** a partner  
who responds to our desires"*

**Michael Kesten**  
Infineon Warstein



# Contact

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“Where others see impossibilities, we see solutions”



**SYNOVA**

