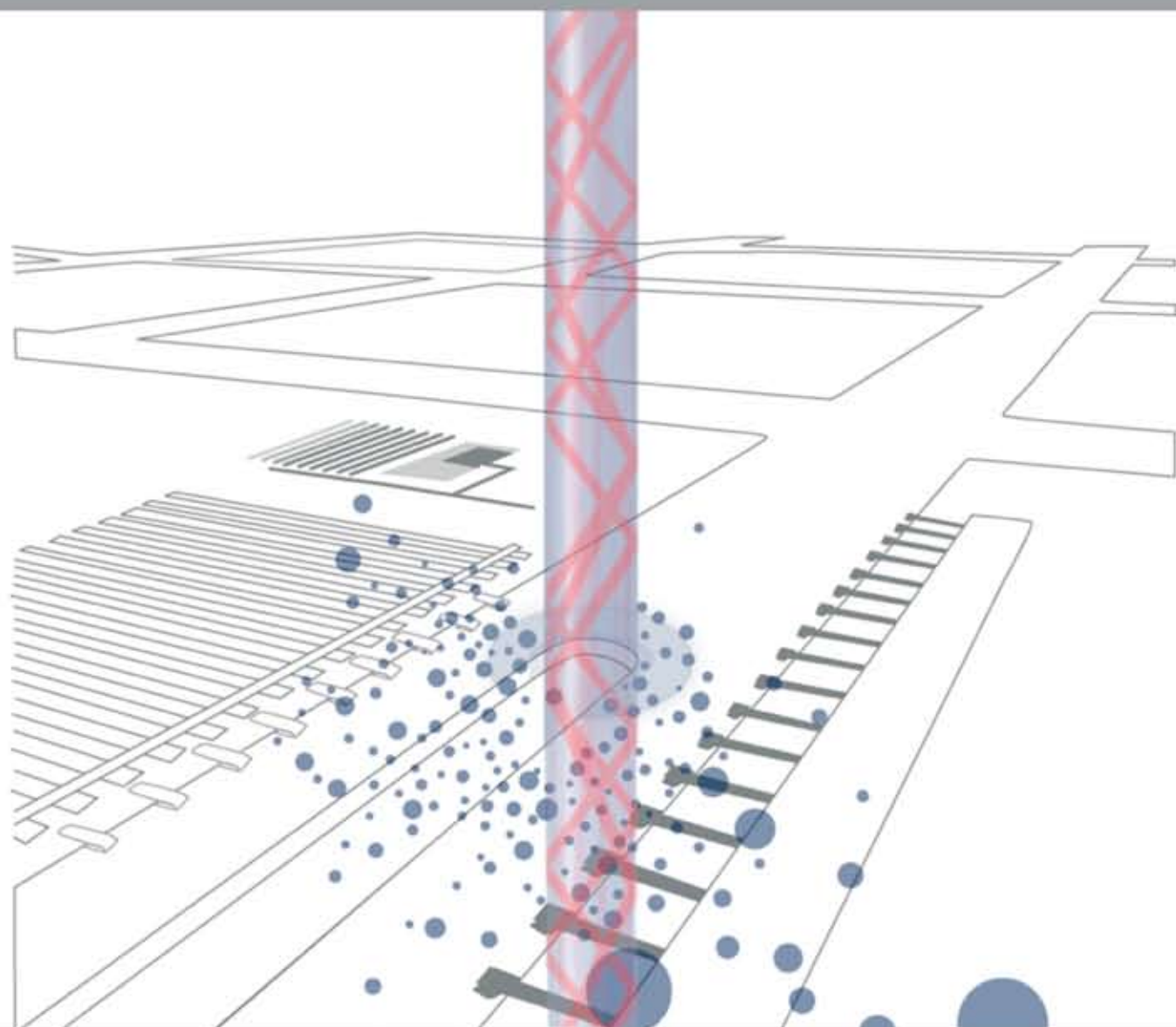


## Innovative Micro-Cutting Systems

Pioneer of a revolutionary water jet-guided laser technology, the Laser MicroJet®, Synova provides state-of-the-art dicing and cutting solutions as well as drilling and edge-grinding systems for both the front- and back-end sectors for the semiconductor, solar, electronic, automotive, watch, tooling, and medical industries.

All Synova systems are built on the Laser MicroJet® platform and benefit from its unrivalled technology advantages:

- Laser Cutting System (LCS)
- Diamond Cutting System (DCS)
- Laser Dicing System (LDS)
- Laser Stencil System (LSS)
- Laser Grinding System (LGS)
- Laser MicroJet® Integration Package (LMJ-iP)
- Hybrid Laser Saw (HLS)



The Synergy of Water and Fire

## Synova S.A. COMPANY PROFILE



high-precision machining

 **SYNOVA**  
Innovative Laser Systems

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MICRO MACHINING CENTERS, SUBSIDIARIES AND DISTRIBUTORS IN: CALIFORNIA • JAPAN • SOUTH KOREA  
TAIWAN • SINGAPORE • MALAYSIA • INDIA • BRAZIL • ISRAEL • FRANCE • ITALY • UNITED KINGDOM

Expand your capabilities with the latest development in Laser Technology

 **SYNOVA**



## Origin of Synova SA

Synova stemmed from an invention developed at the Federal Institute of Technology (EPFL) in Lausanne, Switzerland in the 1990s. The idea was to use a water jet to guide a laser beam by means of total internal reflection. Using this innovative "wet" approach, the most efficient and cool laser cutting technology, the Laser MicroJet®, was developed. Its industrial solutions meet and even exceed the customers' needs for existing and emerging challenges for a wide array of applications in high-technology industries, including semiconductor, electronics, and medical.

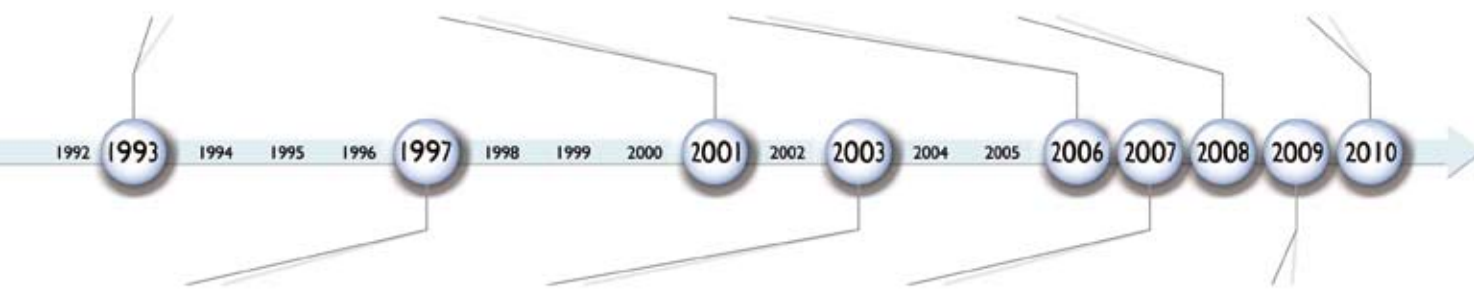
The Water Jet-Guided Laser technology (LMJ) is invented at the EPFL.

Improves presence in the electronics and semiconductor industry with the Laser Dicing System (LDS).

Synova secures CHF 10 million to drive global expansion efforts with the deployment of MMCs.

Partnership with Fraunhofer ISE and photovoltaic manufacturer leaders in a European solar research alliance.

Synova and RENA GmbH Germany have formed a joint venture for the commercialisation of the LCP (Laser Chemical Processing) based Technology.



Synova S.A. is founded and receives international awards for international breakthrough.

30 systems worldwide; initiates the development of the Laser Stencil and Edge Grinding systems; relocates headquarters; establishes Synova USA.

Extends business model, licensing partnerships and the LMJ Integration Package; Synova and Disco co-develop the Hybrid Laser Saw.

Synova signed a license agreement with RENA GmbH. In addition, Synova started OEM partnerships in the automotive, the tooling and semiconductor industry.

## Awards

2007	Second Best Tool for Wafer Processing	EuroAsia IC Industry
2005	European Award for Technology Innovation	Frost & Sullivan
2004	Entrepreneur of the Year 2004 (Finalist)	Ernst & Young
1997	Förderpreis Technopark Zürich	Technopark Zürich
1997	Technologiestandort Schweiz	OSEC, Swiss Center for Trade Promotion
1997	Sonderpreis Espace Mittelland	Cantons of Central Switzerland
1996	KTI-Label	Swiss Innovation Promotion Agency, Bern

## Versatility, Accuracy and Productivity

Built upon its proven Laser MicroJet® technology, Synova's high-precision cutting machines allow fast, accurate and omni-directional processing without any chipping, burrs, deposition, contamination, thermal damage, material changes, and mechanical stress. Thanks to its versatile technology, the Laser MicroJet® can be used for a broad range of processes, including cutting, grooving, scribing, drilling, surface structuring and dicing.

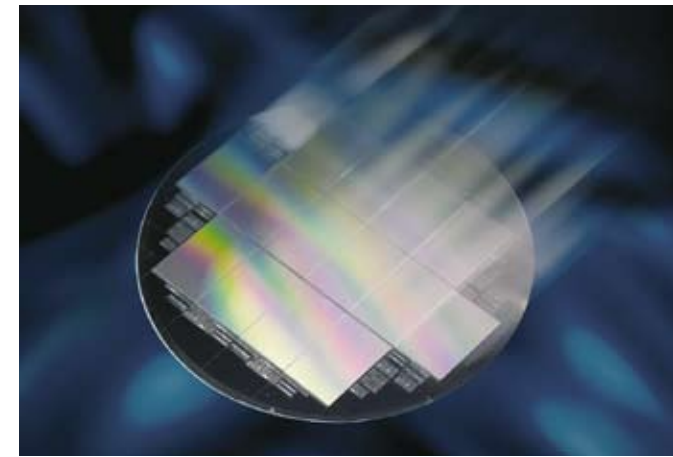
Synova's equipment is recognized for its proven technology and its ability to deliver a fast, accurate and reliable material processing performance. High productivity is central to maintaining a competitive advantage, and the reason behind Synova's intense dedication to develop state-of-the-art systems capable of meeting cost-of-ownership and return-on-investment demands.



Consumer Goods :  
Shaver parts



Photovoltaics :  
Silicon solar cells, multi-junction cells, thin film cells



Semiconductor :  
Integrated circuits, smart cards, sensor chips, MEMS



Medical :  
Stents, needles, implants, scalpels



Flat Panel Display :  
OLED evaporation masks, high resolution TFT LCD substrates

## The Laser MicroJet® is used in numerous high-tech industries



Automotive :  
Fuel injection nozzles, catalytic converters, spark plugs



Watch Making :  
Watch hands, precision metal parts



Hard Tooling :  
Super hard material such as cubic boron nitride (CBN), polycrystalline diamond (PCD), silicon nitride (SiN)



Electronics :  
High-voltage devices, metal masks (such as stencils for PCB, wafer bump stencils), ferrites cores



LED :  
Heat sinks for high-power LEDs



Diamond Industrie :  
Cutting of raw diamonds

## Customer Commitment : Global Support Network

Synova is deeply committed to customer satisfaction. As such, Synova has optimally organized its customer support network composed of Micro-Machining Centers (MMC), subsidiaries and distributors, in efforts to provide a global customer base with quick-turn after-sales services.

Synova offers worldwide customer support services along with highly knowledgeable, well-trained support engineers to enable lower cost of ownership across the lifetime of a Synova system. Experienced support engineers regularly visit customer sites to ensure proper system maintenance that enables customers to maximize efficiency and uptime, as well as adapt and extend a system's parameters to new applications.

Each Synova machine is equipped with a tele-diagnostic system that allows its engineers to monitor a system's performance from the headquarters via Internet, providing customers with fast support to troubleshoot any issues.

Synova's global network serves as competence centers for demonstration, sample testing and application development and offers regional micro-machining services throughout the United States, South East Asia and Europe.

