

"Firn" STC JSC

Krasnodar

Owners:	3 physical persons - 60%, 20%, 20%
Staff:	22 staff employees
Previous financing:	\$ 850,000 including internal funds of \$ 250,000 and debt capital of \$ 600,000
Current financing:	\$ 80,000 - internal funds
Volume of investment required:	\$ 2,500,000
Intended use of the investments required:	Development of an industrial prototype - 20%, starting serial production - 80%

Company profile

The company was organized in 1990. The company's employees are engineers, scientists and technical personnel with an experience of work in institutes of the Academy of Sciences of the USSR, research institutes of the Ministry of Electronic Instruments Making, young graduates of the Physics and Technology Department of Kuban' State University.

Area and directions of activity

Basic research in the sphere of solid body physics. Development of materials and instruments of quantum electronics.

Products/Services/Technologies

Manufacturing diode pumped solid state lasers according to customer specifications (non-serial production), development of microlasers and technology of their production.

Achievements

During its activity STC "Firn" successfully realized several scientific and development projects.

1993-1995. Project "Highly efficient laser crystals", a grant of the Federal Ministry of Research and Technologies of Germany.

1996-1998. Project "Development of a new active medium on the basis of rare earth scandium borates for the creation of laser sources radiating in the 0.53, 1.06 and 1.5 mm", a grant of the International Science and Technology Center.

1998-2002. Project "Development of microlasers of the IR and visible ranges of the spectrum", own funds.

As a result of fulfillment of the last project we developed a pilot series of microlasers radiating in the IR - 1064 nm - and visible - 532 nm - ranges of the spectrum. The concept of microlaser manufacturing developed by STC "Firn" is characterized by high fabricability and, as a consequence, low production costs. In such parameters of laser radiation as stability of output power and noise level, the microlasers exceed diode pumped solid state lasers of the leading world companies (COHERENT, USA, Compass 315M series and JDS Uniphase, USA, CDPS 532S series).

The team of STC "Firn" is a prizewinner of the premium of the Krasnodar territory in the sphere of science for the year 1998 and a winner of the first contest of Russian innovations in 2002.

Prospects of Development

Analyses of the market (regular participation since 1993 in the largest international fair LASER in Munich, Germany, information from specialized sources Laser Focus World, Opto & Laser Europe, and others, potential customers inquiries) allow us to assume that sales of microlasers with different output power may reach 10,000 per year. Samples of microlasers were made and shipped to Germany, Finland, USA and Canada.

We need for establishing serial production of microlasers the investment of \$2,500,000.

Planned volume of production: 8000 microlasers with annual turnover is \$ 26,000,000.

The payback period - 3 years.

Sales volume (over the last 12 months): \$ 60,000

year	Without investments requested	With the investments requested
2002	\$ 80,000	\$ 80,000
2003	\$ 100,000	\$ 1,200,000
2004	\$ 150,000	\$ 5,400,000

2005	\$ 200,000	\$ 13,500,000
2006	\$ 500,000	\$ 26,000,000