



Russia, 194064 St. Petersburg, Tikhoretskiy pr., 21
 Phone: +7 (812) 552-01-00
 Fax: +7 (812) 535-46-98
 E-mail: ltc@ltc.ru
 www.ltc.ru

Volume of investments required – \$ 600 thousand

Summary

1. **Production** – laser technologies – a laser facility with a control system for processes of materials exposure to highly concentrated radiation fluxes in order to provide laboratory sessions in vocational training institutions (LF).
2. **Trade marks** – Laser Technologies Centre.
3. **Sales 2007**– \$ 4 071 ths.

Company profile

Date of establishment – 19.03.2004. In 1988 the Laser Technologies Centre (LTC) was established on the basis of the Welding Production Technology Chair at the Department of Physics and Metallurgy of LPI (Leningrad Polytechnic Institute), now called SPbSPU (St. Petersburg State Polytechnic University). LTC is closely cooperating now with the SPbSPU's Laser Technologies Chair. A reorganisation was performed in 2004.

Description and value of capital assets – \$ 200 ths. Specialised equipment for the execution of works for development and production of high technology laser equipment.

Previous rounds of investments – \$ 2 494 ths.

Signs of public recognition – numerous diplomas obtained at regional and international exhibitions. Patent No. 2008124197 Method of application of a raster image, Certificate of official registration of a computer program No. 2007615244 MScript.

Number of employees – 43 persons.

Structure of ownership

Natural person	100%
Aggregate share of government property	0%

Team

Lopota Aleksandr Vitalyevich – Director General, 30 y.o. Candidate of Economic Sci. A leader having an experience in the implementation of investment projects, arrangement and organization of the effective operation of a new production.

Grigoryev Aleksandr Mikhailovich – Leading Researcher of LTC's development department, 50 y.o. Operating experience in the sphere of development and creation of laser and optical technologies for more than 20 years. University degree in technology, specialist in the field of laser technologies.

Matyushin Igor Victorovich – Head of Sales & Marketing department, 47 y.o. Operating experience in the sphere of laser technologies for more than 20 years. Service record in the sales and marketing department is 14 years including 7 years as the head of sales and marketing department. University degree in technology, specialist in the field of laser technologies, experience in launching and effectively promoting new equipment to the market.

Production

Output products – FMark-10/20 RL, D'Mark RL – laser engravers for application of text and graphic images onto the surface of various materials; BetaMark-2000 – a precision laser marking system (PLMS) for precision marking of products in the conditions of commercial production, in advertising business; Skat-301/501 – a laser process system (LPS) for deep process engraving, hole broaching, precise cutting of materials, superhard, ceramic, semiconductor and fragile materials and other equipment.

The facility being developed is a laser facility with a control system for processes of materials exposure to highly concentrated radiation fluxes (LF); it is designed for education and conduction of research and process development activity, both in research institutes and at industrial enterprises, which needs to monitor the treatment process and register the readings of instruments. LF can serve as a basis for the development and implementation of up-to-date integrated laboratory sessions at training specialists in the following directions: laser technologies; welding production equipment and technologies; equipment and technologies for material treatment methods; and allied directions. The development being proposed provides a quality growth of potential capabilities and the range of application of equipment for the conduction of research and process activity with a noticeable reduction of expenses on the development, improvement or modification of systems for the arrangement of their joint operation. The use of LF in the academic and laboratory process in universities and higher institutions will allow to assure specialist training at the most advanced world level.

LF has no direct analogues, there are developments with the use of standard hardware, on which basis individual laboratory works are set up at SPbSUPMO (St. Petersburg State University of Precise Mechanics and Optics), Cantabria University (Santander, Spain), etc.

Main competitive advantages: LF consists of two turnkey systems; a possibility of independent use of each system component; availability of a specialised software product (for the conduction of analytical and calculation works at researching a laser induced plasma torch as well simulation of corresponding processes); a possibility of conduction of integrated investigations of the processes of interaction of highly concentrated radiation sources with various materials; a possibility of use in research at the development of circuit design and processes of materials treatment with concentrated energy fluxes; compactness and ergonomic features; air cooling and low energy consumption.

Current state

The Laser Technologies Centre performs the development, manufacture and sales of laser process equipment as well as provides various services on laser treatment. At the present time the development of a new modern high-performance precision dimensional processing equipment and its launch on the market have been completed - FMark-20 RL/ FMark-10 RL. New developments in the field of laser technologies have been started including hybrid gas laser welding technologies.

Development strategy

Use of funds

1. R&D	55%
2. Acquisition of fixed assets	5%
3. Marketing	7%
4. Acquisition of current assets	30%
5. Other	3%

Prospective outcome of investment

Creation and launch on the market of a laser facility with a control system for processes of materials exposure to highly concentrated radiation fluxes as well as assurance of high profitability and accelerated development of the LTC company. The LF implementation will allow strengthening competitive positions of LTC on the domestic and foreign markets.

Marketing & Markets

The strategy of launching on the market will be as follows: implementation of innovations, intensification of marketing efforts in order to increase the share on the market and conquer new target segments; satisfaction of needs of a broad circle of customers of laser equipment. It is assumed to arrange the sales of products by means of the direct sales method and according to the distributor pattern.

The competent situation on the laser equipment market is as follows. The market of specialised laser equipment for education and conduction of investigations allowing to control the treatment process and register the readings of instruments is very limited. According to specialist evaluations, about 10 companies are operating in Russia, which offer integrated solutions for customer problems with the use of laser equipment. Mainly, the market comprises process laser installations not being adapted for the conduction of research and educational works. A broad implementation of modern high-performance laser technologies in the industry requires proactive training of high level specialists having not only theoretical knowledge but also practical experience and skills. However the laboratory logistics basis of Russian universities, higher institutions and enterprises dealing with research and development activity with the use of laser technologies has, in the overwhelming number of cases, become obsolete and requires to be refit with a new up-to-date equipment. In order to assure the release of modern output products, it is necessary to provide a possibility for enterprises to acquire advanced equipment and technologies. This problem is especially relevant for small and medium enterprises, which, due to low financial capabilities and small production volumes, cannot buy expensive imported systems for conducting their research and development. The volume of market of specialised equipment for education and conduction of research and laboratory activities in Russian and CIS states is evaluated in the amount of about \$ 5 mln. After launching the laser facility with a control system for processes of materials exposure to highly concentrated radiation fluxes on the market, LTC will be able to occupy about 25–30% of the market for similar equipment.

Interaction with investor

The investor will be provided with an interest in the company's equity being proportional to the fraction of funds invested with respect to the company's market value as of the moment of capital investment, i.e. about 15%. The project payback period is 3 years. With successful implementation of the project, it is assumed that the investor will leave the company in 4–5 years according to one of the following scenarios: sales of investment to a strategic investor; sales of the enterprise share to other investors or to the enterprise management. The forecasting market value of the company, provided successful implementation of the project, equals to about \$ 20 mln.

Financial characteristics, \$ thousand

Data	Facts			Forecast	Forecast with the investment required			
	2004	2005	2006	2007	2008	2009	2010	2011
Sales	1 315	1 408	4 071	4 200	4 500	6 000	6 500	7 000
Operating income	156	166	235	580	675	1 000	1 070	1 190