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**Volume of investments required – \$ 3 800 thousand**

**Summary**

1. **Production** – master-holograms and holographic laser printer.
2. **Trade marks** – none.
3. **Sales 2007** – none.

**Company profile**

**Date of establishment** – 28.06.2004.

**Description and value of capital assets** – \$ 50 ths.

**Previous rounds of investments** – \$ 50 ths from The Foundation for Assistance to Small Innovative Enterprises (FASIE) in 2004.

**Signs of public recognition** – In 2008 the Company took the 2<sup>nd</sup> place in the National Contest for business plans “Business of Innovation Technologies”.

**Number of employees** – 5 persons.

**Structure of ownership**

Natural persons (2):	100%:
Igor A. Chekhonin	50%
Mikhail A. Chekhonin	50%
Aggregate share of government property	0%

**Team**

**Chekhonin Igor A.** – Director General and co-founder of SAOptics LLC, 54 y.o. Cand. Sci. (Physics and Mathematics), the project leader. About 70 publications. Author, leader or executor of the following implemented developments: diffraction spectrograph (EKSMa company); variable baseline Fabry Perot interferometer (Germany); optical mechanics packages OMK-1, OMK-2 (scientific research institutes of St.Petersburg State University); “Laser designer” package (Russian Centre for laser physics); neutral gases mixture analyzer (Russian Centre for laser physics); holography production appliance. At present – senior research scientist of scientific research institute of St. Petersburg State University, optics division.

**Chekhonin Mikhail A.** – Co-founder of SAOptics LLC, Electronic Engineer, Programmer, 49 y.o. Developer. Experience of introducing new developments. 27 years of professional experience. Working experience in R&D (“Leninets” group, “Neptun” scientific research institute, LPO Kozitskogo), “Raduga”, scientific research institutes of St. Petersburg State University. At present – research scientist of St. Petersburg State University, physics department.

**Rogozov Andrey O.** – Project Manager, 20 y.o. St. Petersburg State University graduate with specialization in programming and economy. Experience of organizing and managing Internet business since 2006. In 2007/2008 participated in Motorola developments. At present – developer in “VKontakte” LLC.

**Poduzov Sergey V.** – project manager, 27 y.o. MiBA of Hamburg University, Master of Economics of St Petersburg State University of Economics and Finance. Working experience in Citibank Russia, “Lenstroykomplektatsiya” (“Lenstroyaterialy” industrial association), Sberbank, Lenmontazhstroj. At present – co-initiator of BIT business plan contest in St.Petersburg, and supervisor of a student business incubator. Since 2008 is engaged with BFA Group in development of a venture fund and expansion of venture financing.

**Production**

Our Company has developed a new technology of digital master hologram production which is compatible with pressrun technologies. This technology will be implemented in the holographic laser printer.

Holographic laser printer is a completely automatized, high-speed, small-sized appliance. It implements a new technology of master hologram production, which allows making holograms that possess new consumer properties:

- Hologram size: up to 1 square m,
- image depth: up to 80% of image width,
- color depth: 16 million,
- recording speed: up to 1 square cm per second,
- potential to print any computer 3D scene.

Our major advantage is the unique technology, which allows to generate an effect of a deep (up to dozens cm) image while its sharpness remains high. All in one, the technology supports print size of any typographical format. The new technique makes it possible to implement previously inaccessible concepts and developments in business and engineering. Thanks to low prime cost and high print speed the Company is planning to expand mass market of 3D

polygraphy, which previously was inaccessible for holography. Examples of employment are books, magazines, CD/DVD, calendars, postcards, labels, packaging, advertising. Engineering field can employ the printer in production of unique diffraction screens for TV projection systems, computer and TV 3D displays, mobile phones.

At present the team has completely developed printer software, and recorded trial samples of master holograms 4x4 cm which prove efficiency of the new technique and accuracy of all calculations. Work is in progress on designing a printer able to produce master holograms of any format, up to 30 square cm.

Direct competitors are companies producing master holograms based on existing techniques, such as HoloGreat CJSC, Spatial Imaging Ltd., Polish Holographic Systems, Stigma, etc. Likewise, companies producing unique large-size holograms are considered as competitors (Geola, Zebra Imaging, Liti3D, Syn4D).

#### **Current state**

At present the team has completely developed printer software, and recorded trial samples of master holograms 4x4 cm which prove efficiency of the new technique and accuracy of all calculations. Work is in progress on designing a printer able to produce master holograms of any format, up to 30 square cm.

#### **Development strategy**

##### **Use of funds**

1. R&D	14%
2. Acquisition of fixed assets	5%
3. Marketing	30%
4. Acquisition of current assets	30%
5. Other	21%

##### **Prospective outcome of investment**

Shareholders of the Company hold interest in raising \$ 3.8 million with a strategic investor. Investment is assumed to be divided into 2 stages: \$ 550,000 and \$ 3 250,000 after completion of development and successful tests of a holographic laser printer prototype.

##### **Marketing & Markets**

Our prime target audience is companies that produce holographic images for the following market sectors (market share in brackets): Protective Hologram (32%), Brand Protection (29%), Packaging (13%), Promotion and Illustration (10%), Personal Items and Gifts (8%). Total world turnover exceeds \$ 10 bln per year. Market growth is 30% per year. According to Global Industry Analysts, by 2011 sales of holographic production will have amounted to \$ 11.33 bln, and average growth will have reached 11.05%. USA represent the largest holographic market with 47.35% of market share in 2006 and average growth of 13.38% within 2000–2010.

At present, holographic market is becoming a part of world polygraphic market whose turnover will have amounted to €552 bln. In 2 years major part of polygraphic production will fall within packaging, which will be 30% of the market (€167 bln). Traditional printing techniques are forecasted to be in a come-down. Digital printing is rapidly developing, and by 2010 it will have increased its share in printing industry from 4.6% to 15.5%.

##### **Interaction with investor**

The share of investor is 25%+1. The valuation of the company on the investor's exit is \$19.7 mln in 2014.

#### **Financial characteristics, \$ thousand**

Data	Facts			Forecast	Forecast with the investment required			
	2004	2005	2006	2007	2008	2009	2010	2011
Sales	-	-	-	-	-	2 046	6 510	14 100
Operating income	-	-	-	-	-	584	3 760	9 370