

MACDEL-Technologies CJSC

The volume of investment required: **\$ 2 500 thousand**

Intended uses of investment required:

R&D	10%
Products upgrade (MACDEL-09)	8%
Marketing (promotion to the RF and world market)	47%
Patent and certification	16%
Working capital	15%
Fixed assets acquisition	4%

Company profile:

1. Date of establishment - October 9, 2002 (the team activity at the market since 1992)
2. Stage of development - Expansion
3. Size and source of investment to date Moscow grants - \$ 20 th., company investment - \$ 900 th.
4. Industry - Instrument engineering, medical technology
5. Target market - Medicine
6. Sales in 2003 - \$ 300 th.
7. Description and value of assets - Manufacturing facilities and tools (\$ 13.500)
8. Intellectual property rights - owned by establishers
9. Public recognition - IV Russian Venture Exhibition nominee, the Winner of Russian Innovation Competition -2003.

Owners:

1 natural person	50%
2 - 6 owners	По 10%
Share of government property	0%

Management and key personnel:

Leonid S. Orbachvsky - General Director, 54, graduated from Bauman MSTU, PhD (Engineering); Occupational training in Technological Management at ANE in 2001, the master degree. The MACDEL concept designer, twice All-Russian Exhibition Center Medal awarded (No. 625 of May 15, 2000 and No. 154 of February 06, 2001) as one of the designer of ophthalmologic technologies and Archimed-2002 Silver Medal.

Aleksandra V. Khudyakova - Deputy General Director for organizational activities, 44, graduated from Bauman MSTU; Occupational training at ANE in 2001 and 2004, SABIT Programme traineeship (USA); the runner of numerous varied support activities of the Company, e.g. licensing, leasing, paperwork (for contracts, grants, etc.), technical translation, negotiation arrangement, customer training, etc.

Product characteristics:

Eyesight curing and prophylaxis technologies. Diagnostics, techniques and apparatus complex for therapeutic treatment and prophylaxis of eyesight diseases give 50% of the sales volume. The technology allows a significant decrease of myopia by prophylactic methods. Over 350 apparatuses were sold, the number of patients is over 400,000.

Comparative analysis with existing alternatives:

There are no direct analogues. However, there are competitive technologies. See table for MACDEL-09 apparatus comparison with the most applicable competitors.

Characteristics	MACDEL-	Analogue	Analogue	Analogue 3	Analogue 4
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	09	1 Eye training	2 simulators	magnetotherapy	electrostimulation
Efficiency	1	0,2	0,15	0,25	0,25
Labor intensity	1	15	10	-1	-3
Noncontact treatment	Yes	Yes	Yes	Yes	No
Cost value, \$	4 000	-	200-1 000	»1 000	»1 000

Expanding the presence in the niche of ophthalmologic apparatuses, our Company expects to add three, currently existing laser apparatuses by a new one for combined color and laser therapy already at the beginning of 2005. We also plan to present a diagnostic system for sclera condition assessment, which allows forecasting therapy direction and successful application of the widespread photorefractive keratectomy operation, where the problem of repeated patients is urgent. For 2005, we expect promotion of masseurs and simulators at the market. These apparatuses will also increase the therapy effectiveness.

Markets/Competition:

	Characteristics	MACDEL products	Analogue1 Eye training	Analogue2 simulators	Analogue3 magnetotherapy	Analogue4 electrostimulation
2004	Distribution geography – Russia, Kazakhstan, Ukraine, Vietnam. Market volume - \$ 300,000					
	Company part at the market, \$ ths./%	150 / 50%	-	60 / 20%	30 / 10%	15 / 5%
2008	Distribution geography – the world market. Market volume - \$ 2 billion					
	Company part at the market, \$ ths./%	100 000 / 5%	-	40 000 / 2%	200 / 0,01%	400 / 0,02%

Potential sales volume of physiotherapeutic and ophthalmologic devices in Russia exceeds \$100 million and at the world market - \$ 2 billion. (estimated by Trykor, Inc. USA, www.trykor.com)

MACDEL Company sales apparatuses in Russia, Kazakhstan, Ukraine, and Vietnam. The market area of therapeutic apparatuses for ophthalmology in Russia is occupied by 5-6 manufacturers. MACDEL Company takes the leadership in therapeutic laser apparatuses for ophthalmology (over 50% with the best price/efficiency ratio). Technology launching to the world market may meet a problem of confirming its efficiency mostly caused by nonconformities in the infrastructure of its application at the market. Currently:

- Different understanding of disease formation and development mechanisms, including terminology variance.
- Differences in ophthalmologic service organization. The western system provides patients with early stages of disease to visit an optometrist, where they are helped by prescribing glasses or contact lenses. A patient visits an ophthalmologist (much more expensive visit), when the disease reaches later stages. Prophylactic measures are developed only at a level of computer software for eyesight relaxation and simulators. This may not solve the problem. Radical treatment is mostly implemented in the age of 20 – 45 via an operation adjusting the eye front lens flexure to the distance from retina. This eliminates the consequence, but not the factor, and many cohorts of patients are excluded from the consideration, including children and teenagers, and some categories of specialist.

At the 10th International Myopia Conference (Cambridge, 2004) representatives of MACDEL Company have proved the existence of the early stages of diseases, the possibility of prophylaxis, and high efficiency of MACDEL technologies. The

same action is planned for a conference in San-Francisco University to be held in October 2004. The prospects of MACDEL-Technologies Co. development: preservation of 50% part in the Russian market at permanent increase of the real sales volume of physiotherapeutic apparatus for ophthalmology to \$ 10 million and development of 5% potential world market (\approx \$100 million). Myopia curing technology, etc. is the leader among the known therapeutic methods (with efficiency 3 - 5 times higher) (www.macder.ru); potential patients of it are 45-75% of the population in developed countries.