

ELIT JSC

Volume of investments required: \$ 1 500 thousand

Use of funds

R&D - 28%

Acquisition of fixed assets - 13%

Product upgrade - 13%

Marketing - 13%

Acquisition of current assets - 7%

Other (manufacturing of special technological equipment and rigging) - 26%

Company profile

1. Date of establishment – October 1990.
2. Size and source of investment to date – \$ 2 009 000, including: own funds – \$ 1 724 000, attracted – \$ 285 000, financing from Grant of Russian Ministry of Science – \$ 450 000 for 2005–2006.
3. Production – electrochemical capacitors (supercapacitors, capacitors with double electric layer).
4. Target market – auto- and railway vehicles (start of combustion engines), leisure (car-audio), power engineering (power quality).
5. Sales 2004 – \$ 328 000.
6. Description and value of assets – \$ 42 500. – Automated line for capacitor manufacturing, additional metal-working equipment, research equipment.
7. Goodwill and intellectual property rights – patents of Russia, of the USA, Canada and European Union for supercapacitors design and manufacturing.
8. Signs of public recognition – 2003, ELIT JSC was honored with national prize “Gold Mercury”. 2003–2004, diploma of “100 of the best Russian products”. 2003, diploma for scientific achievements, Argonne National Laboratory, USA.

Owners

Legal entity: “ELLIT Trade House” JSC	98.04%
Individuals	1.96%
Share of government property	0%

Products characteristics

Current products – electrochemical capacitors (supercapacitors), optimized for high power charge/discharge. Car-Audio and Starting of engines supercapacitors for auto- and railway vehicles including cars and diesel locomotives to 2200 kW are serially manufactured.

Products under development – power quality systems. There is a tendency to supply substations with their own power source to feed the network for a short-term period and to avoid avalanched turning off with the help of MW range supercapacitors. Present scientific potential allows realizing such R&D works, which results are unreachable for other organizations in the nearest 2–3 years. Advantages: more than double superiority in specific power, compactness on module voltage and high reliability during operation.

Markets & Competition

Current products. Supercapacitor market of Car-Audio is generally located in the USA. The main competitor – more expensive aluminum capacitors. At the market of engine starting systems the competition is between ELIT devices and that on the base of storage batteries of different kinds or on the base of transformers. They are cheaper and more usual but they demand special maintenance and have big dimensions and weight (if compared according to power).

Products under development. In the range of power engineering development, supercapacitor market grows fast. Need in high-voltage supercapacitors is satisfied by complicated technological designs from low-voltage capacitors. The competitors at high-voltage supercapacitor market are Maxwell, Technocor Co., Montena, NEC. Besides their lower technical

characteristics, the main disadvantage is toxic electrolyte use. It causes considerable limits. ELIT JSC products is based on aqueous solution of electrolyte and emit no harmful substances.

Data	ELIT JSC, Russia	Panasonic, Japan	Maxwell, USA
Geographical Region – USA. Market size \$ 21.6 million			
2004 Company market share \$ ths / %	328 / 1.5%	950 / 4.4%	1 800 / 8.3%
Geographical Region – USA. Market size \$ 82 million			
2009 Company market share \$ ths / %	9 000 / 10.9%	3 500 / 4.2%	8 000 / 9.8%

Marketing & Sales

Creating of dealer network on the base of partnership companies through participation in specialized seminars for supercapacitor commercialization. Penetration to the market of maintenance free uninterrupted power supply systems for a short-term period (UPS). Co-operation with R&D organizations to develop a system of power compensation as STATCOM. Some negotiations are carried on as for the use of supercapacitor for accelerator (TOKAMAK). There is preliminary agreement for UPS to reserve energy in GSM retransmitters of cell networks and oil industry.

Prospects of development

Nowadays ELIT JSC is one of the leading players in the world supercapacitor market. Complete realization of the works, carried out in the frames of the investment project, will let ELIT JSC dominate at the market of “big” supercapacitors, proposing its products at a reasonable price and at the same time providing with required technical parameters.