

Sibirskaya Patoka LLC

Volume of investments required: \$ 1 200 thousand

Use of funds

R&D - 7.9%

Acquisition of fixed assets - 57.5%

Marketing - 6.7%

Acquisition of current assets - 12.5%

Other (construction and start-adjusting works, certification of production) - 15.4%

Company profile

1. Date of establishment – May 2004.
2. Size and source of investment to date – \$ 31 400, including: The Foundation for Assistance to Small Innovative Enterprises (the program “Start”) – \$ 26 160; the executive administration of the program for development of Naukograd Koltsovo – \$ 5 240.
3. Production – highly efficient gas vortex technologies for production of saccharine products (starch treacle, glucose and glucose-fructose syrups) from different kinds of starches.
4. Target market – food industry (breweries, confectioneries, bread-baking plants, ice-cream manufacturers, etc).
5. Sales 2004 – none.
6. Description and value of assets – \$ 20 000. – Pilot-production plant with a gas vortex gradientless bioreactor of 2 500 l.
7. Goodwill and intellectual property rights – Patent N 2004130609 “A method for bioconversion of starch-containing raw material”.

Signs of public recognition – our project took the first place in the competition of projects under the «Start» program in the Siberian Federal District. The developed technology is based on the use of equipment of the new generation – gas vortex bioreactors considered to be among the most promising developments in the area of high technologies in Russia in 2004. A plenary report on the results of activities on gas vortex conversion of starch was made at the 13th International Conference on Starch in Moscow, June 21–23, 2005.

Owners

5 Individuals	100%
Share of government property	0%

Products characteristics

Current production – Highly efficient gas vortex technology for production of saccharine products from starch. By economical indices, the developed technology is considerably superior to the ones existing in the world due to sharp reduction of the time needed for fermentative bioconversion of starch and low power inputs at high yield of the end product. The technology uses the vortex gradientless bioreactor. This is an apparatus of the new generation characterized by extremely low power consumption – by 10–12 times lower than that of bioreactors with a mechanical stirrer; high quality stirring of especially viscous fluids; constant characteristics at work with the volume filled to 10–90%. The Limited Liability Company “Sibirskaya Patoka” possesses licensing rights for its use. The purchasers of the technology will buy the gas vortex gradientless bioreactor and a license for its use.

Products are being worked out – Saccharine products – starch treacle GOST R 52060-2003, glucose syrups, in future – glucose-fructose syrups produced with the gas vortex technology.

Markets & Competition.

Saccharine products

	Data	LLC “Sibirskaya Patoka”	“Efremovskiy GTCP” (Cargill)	“Kazatskiy STCP”
2004	Geographical Region – Russian Federation. Market size \$ 175 million			
	Company market share	-	~ \$ 87 500 / 50%	~ \$ 14 000 / 8%

	\$ ths / %			
	Geographical Region – Russian Federation. Market size \$ 230 million			
2009	Company market share	\$ 2 182 ths /	~\$ 133 400 / 58%	~ \$ 11 500 / 5%
	\$ ths / %	1.06%		

The stage of the goods development: Pilot industrial production.

Competitors (in the technology market) "Novo" (Denmark), "MI-CAR Int." (USA), "CLINTON CORN" (USA), "GIST BROCADES" (Holland), "DENKI KAGAKU" (Japan), etc.

It is supposed to sell the highly efficient gas vortex technology for production of saccharine products from starch to Russian and the world leading manufacturers ("Cargill", "DENKI KAGAKU", etc.). The market of our technology is estimated at \$ 10–15 million.

Marketing & Sales

Long-term agreements have been concluded for delivery of the whole volume of products on the basis of contacts established before the investment period.

As channels of marketing and sale of the product, the company is planning to use personal meetings with directors of enterprises purchasing the product, advertising in subject journals ("Food Industry"), distribution of information to directors of enterprises, participation in subject exhibitions.

Preliminary negotiations have been conducted with the Limited Liability Company "Sobol-Beer", Novosibirsk. They are ready to purchase the whole volume of product (maltose treacle) planned for manufacture. The conditions of sale of the gas vortex technology for production of saccharine products are under consideration.

Prospects of development

Transition to large-scale production of saccharine starch products with the company share at the market increased to 10–15%. The development of highly efficient gas vortex technologies for production of food products at processes involving reologically heavy fluids with variable viscosity (fat hydration, production of mayonnaises, polysaccharides, etc.).