

Slush

November 21-22, 2012

Helsinki



**Skolkovo Foundation
presents**



What is Skolkovo?

The strategic goal of the Skolkovo Innovation Centre is to concentrate international intellectual capital, thereby stimulating the development of break-through projects and technologies.

In the course of implementation of the project, companies that are engaged in innovative development are discovered. After a selection process, some of these become project participants of the centre. They are provided with all assistance necessary for development.

The Skolkovo Foundation and its partners transform the infrastructure, resources and other possibilities of the centre, into effective services for companies that are project participants.

Clusters

IT Cluster develops strategic directions of information technologies – from search systems to cloud calculations. Over 172 companies are part of the cluster today.

Space Cluster companies are engaged in space projects and the development of telecommunication technologies. Thereby the fields of activity are wide – from space tourism to systems of satellite navigation.

Biomedicine Cluster supports and develops innovations in the field of biomedical technologies. Over 142 companies were a part of this cluster as of the beginning of autumn of 2011

Energy Efficiency Cluster supports innovations and advanced technologies, aimed at the reduction of energy consumption by industrial and residential objects, as well as lower energy consumption by communal services and municipal infrastructure facilities. Over 141 companies are part of the cluster today.

Nuclear Technology Cluster's main objective is the innovative development of nuclear technologies. The companies of this cluster create new products for the power markets, develop new materials and design complex technological systems.



3DiVi



www.3divi.com

Dmitry Morozov mda@3divi.com

3DiVi Company was incorporated in April 2011 and raised \$1.2m in July, 2012. The major shareholder of the company is PAPILLON ZAO (the vertically integrated provider of biometric solutions with \$50M in annual sales in 30 countries around the world). The company has three development teams in Russia (Miass, Chelyabinsk, Ekaterinburg) and representative office in Silicon Valley (Sunnyvale, CA). Technology is patented in Russia, two US patents are pending.

3DiVi company develops hardware and software for three-dimensional machine vision systems. Enhanced accuracy and selectivity of gesture recognition, increased skeletal tracking performance and most depth sensor compatibility make 3DiVi Middleware an ideal solution for natural user interfaces in a wide range of electronic devices such as Smart TVs or game consoles.



Bazelevs

BAZELEVS
INNOVATIONS

www.filmlanguage.net

Sergei Kuzmin s.kuzmin@bazelevs.com

Bazelevs is working on a technology that allows to generate 3D animation right from the movie script with no steps in between (no timeline, no camera adjustments, no key frame animation – just one big button – ACTION!).

FilmLanguage currently supports English and Russian.

Proven advantages of the technology over main competitors

FilmLanguage is the only animation production tool that works directly with natural text without additional interfaces. That allows users without special skills or training to use it.

Current Status

«Beta» prototype for UGC product is working and being tested. First UGC product coming out this fall for Comedy Central Russia. Technology was featured in BusinessWeek, Gigaom, Variety and other press.

Intellectual Property

Two international patents filed (one of them pending in the U.S.). Two more are on the way.

BIS Technology



www.bis-tech.com

Aleksandra Aksimova visionid@mail.ru

«BIS Technology» LLC was founded in 2011 by a group of professionals in a field of image processing, person identification and document check under the leading of professor Beathe Meffert.

2011 BIS Technology started a development of document check system and was granted by Skolkovo foundation. D-Ident is a novel smart document check and person identification system.

Advantages

The majority of existing systems just read the document information without checking the document elements and their interconnection.

Main advantages of D-Ident system:

- Real document check system with dependencies analysis;
- Online services;
- Self-learning system that combines different sources of information;
- Novel algorithms of image processing, analysis and classification;
- Novel biometric methods;

Technology

New image processing and classification algorithms allow analyzing and checking of any kind of document protection elements and their interconnections. Self-learning system discovers hidden dependencies and delivers an integral representation of the document. An integration with biometrical algorithms allows to solve a problem of reliable person identification. Server based system accelerates a complex image processing algorithms and provides a platform for online services.



«Computer vision systems» Ltd

www.compvisionsys.com

Vladimir Ufnarovsky, CEO

Katherina Ufnarovskaya, katherina.chizhova@comvisionsys.com

Business development

Company facts: «Computer vision systems» - is a leading Russian developer in the area of stereo computer vision. The company is one of the participants in the Skolkovo Innovation Centre's IT Cluster with its hardware/software package project, which makes it possible to control video devices and computers via gestures.

Our solution: ViEye is a gesture recognition system with the main focusing on video based solutions for extracting 3D data in real-time, primarily for gesture-recognition applications.

The core business directions are:

- Interactive video-walls and interactive advertisement that can be used outdoors in any weather conditions
- Gesture recognition for smart TVs
- Gesture recognition for notebooks

Gbooking.com

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GlobalLab



www.globallab.ru

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GlobalLab is a networked community for students, teachers, and professional scientists, collaborating to reach educational & discovery goals. It is an online laboratory where students across the globe investigate the world together.

GlobalLab is for learners who are curious about science and who enjoy exploring their world, asking questions, and conducting experiments to find answers.

Kintech Lab



www.kintechlab.com

Ivan Zaev dzaev@kintechlab.com

Kintech Lab Ltd. Executes R&D projects and develop software for engineers and researchers. R&D projects are executed in the fields of solid state physics, meta-materials, thin films deposition, chemical and optical processes in gas discharge plasma, catalysis, modeling of real fuel combustion and combustion chamber design. The software under development is for mechanistic modeling of the physico-chemical processes in reactive media for efficient energy, chemical industry and design of new materials.

News360



www.news360.ru

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The analysis platform behind News360, developed completely in-house, allows the company to aggregate articles from hundreds of thousands of online sources, collect them into stories, analyze how the stories develop and update, and, most importantly, understand what each story is really about and how important it is. The system is based on a self-learning ontology that tracks more than a million different topics, organizations, people and products, and how they relate to each other. This understanding of content also allows News360 to understand, in detail, the nature of how users interact with the stories. By analyzing the history of content usage both inside News360 and in outside services (like what they've liked and shared on Facebook, tweeted to Twitter or saved to Evernote), we can create a detailed interest graph, which, when paired with the context of the experience (screen size, location, time and so on) allows us to serve the user highly relevant content. The apps that News360 has built on top of the analysis platform have been downloaded by more than 1.5 million people, and are some of the highest-rated news apps in the various app stores they're published in. On iOS, for example, News360 has more than 9,000 reviews with an average rating of 4.6 stars. News360 apps have been positively reviewed in the Wall Street Journal, TechCrunch, Mashable, ReadWriteWeb, GigaOM and many others.

Company

«News360 is Changing the Content Delivery Game» - Robert Scoble

News360 is a set of mobile apps, for all popular smartphone and tablet platforms, and a web app built on top of a state-of-the-art linguistic analysis engine. Market. According to data collected by Flurry Analytics, news apps now account for 5% of all app sessions on smartphone and tablets (10% if you exclude games). The mobile advertising market, where we expect most news app revenue will be generated, is expected to top \$7B in 2012, and \$24B in 2014 (ABI Research), which means that mobile news will likely become a billion dollar industry in the next two years. The news industry has been undergoing a painful process of change, with both content creators and technology companies looking to create better ways to monetize and distribute news content. As large publishers slowly lose old revenue streams, they are looking for ways to market their content without losing editorial value, and new content players are constantly emerging ready to explore efficient new journalistic models, or occupy topical or local niches. Technology companies are also making an effort to create new solutions, with both startups (News360, Flipboard, Pulse, Zite) and large players (Google, AOL, Yahoo) creating different news aggregation and personalization solutions, but, so far, a leader has not emerged. The market is ripe for disruption, and the company that can create a winning product has a chance to dominate the emerging billion-dollar market.

OJSC Dashboard Systems



www.dashboard.ru
www.boardmaps.com

Pavel Oliyanchuk po@boardmaps.com

Project

The company was founded in October 2011 as a implementation idea of like-minded persons, who understand Boards of Directors' problems and aim for development of the best solution of top-level decision-makers.

Market

A segment of the market for corporate software 2.0 (Enterprise 2.0) is a target market for our first product line, namely - the corporate segment collaboration software (Enterprise collaboration software).

This segment is divided between universal... more.

Company

OJSC Dashboard Systems develop next-gen IT-solutions for collaboration of members of Boards of Directors, Executive Boards and Committees, that take into account the needs and particular demands of top-level decision-makers. We build our own SaaS and hosted platforms for corporate collaboration and decision process support which supports all major mobile platforms and devices such as iPad, Android, and Windows 8. It is available as a Web application as well.

Investment opportunities

We are looking for professional investors, who will use our product BoardMaps in their own companies and in a business society.

Sk

Skolkovo presents

Protection Technology Research


www.star-force.com

Julia Titova julia@star-force.com

«Protection Technology Research» (PTR) has been established in 2011. PTR is the subsidiary of «Protection Technology» (PT) company - the author of the Project idea and concept.

PT has been working on Russian and international markets since 2000 under the «StarForce» brand.

During this time huge experience in the field of software and content anti-piracy protection has been gathered. Unique technologies, algorithms and own software licensing system has been developed.

Several patents received.

PTR has been established to transform gained experience and technology towards mobile market.

Company

Project description:

Protection of software and content for mobile devices against unauthorized use and illegal distribution.

R&D «INCET»


www.incet.ru

Alexey Vinel alexey.vinel@gmail.com

The company R&D «INCET» was established in 1990 and develops innovative solutions in the field of wideband wireless networks and systems. Current primary business areas include the development and implementation of intelligent road traffic safety systems, high-altitude tethered telecommunication platforms, high speed wireless mm-wave mesh-networks and intermodal routes building systems. Experienced scientific and engineering staff along with the wide technological base, provide the means for complex innovative projects implementation.

RAIDIX


www.avroraidd.ru

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Project description

RAIDIX is a software product that allows producing high-performance storage systems based on inexpensive hardware Intel x64. This product is designed to store large amount of data providing high speed access (1GB or more) at low cost (\$/TB). The Key Features of the Product: - It demonstrates unbeaten price-to-performance ratio - Highest write/read speed; - It keeps the same high level of performance in case of 1 or 2 hard disks failure A few particular businesses appreciate these competitive advantages the most: - The Media(audio/video production, TV and etc.) are interested in video processing and storing - Medicine is interested in storing large amount of diagnostic data (radiographs, tomograms etc.) - DataProcessing Centers are interested in virtual machines, backup copies, file resources, cloudcomputing - Research Centers (geophysics, petroleum industry) are interested in seismic data storing processing, modeling etc.

Company

RAIDIX team includes about 20 employees. Among them there are 3 with MBA degree , 1 with PhD degree and other credentialed specialists of the storage system technology. A successful entrepreneur, Andrei Fedorov, is an investor and a sole owner of the company. Digital Design and DocsVision were established by him as well. Andrei Fedorov is an author of the unique patented mathematical algorithm, which formed the basis of RAIDIX product.

Market

- Volume of the world's market of storage systems is \$6 billion. - Data storage market has been growing by 10-12% per year for the last 5 years. - World's current trend is accelerated growth rate of software storage systems, exceeding world market by 2-3 times. - The dedicated solutions intended to satisfy appropriate customers' needs demonstrate the biggest growth rate on the storage market. - On the one hand there are a lot of high-performance, functional, but very expensive solutions; on the other hand there are a lot of cheap but low-speed storage systems in the market. RAIDIX software storage products allow producing high-performance inexpensive storages with unbeaten price-to-performance ratio.

Rikor Interactive Media Technologies


www.rikor.com

Khabib Abdullaev Foreign habib@rikor.com

Rikor Interactive Media Technologies is a part of Rikor Holding established in 1993. Since 2005 we have been working on the technology of personalized interactive TV platform.

Among various features of this technology there are two main unique functions.

First, the systems filters all the available video content according to the preferences of the TV viewer and records the selected content automatically, thus creating a personal channel for him. It saves a lot of time and efforts that are usually wasted because TV and Internet offer too much content.

Second, the platform provides TV viewers with real interactivity, so they interact with channels just using their remote control. The interactivity also gives them the possibility to take part in games or polls. The technology enables channels and operators to deliver targeted advertising, connected with the context of the content being watched.

The technology has been tested since 2010 in a Russian satellite TV network.

There is no analog in Russia nor worldwide, as the existing video content management systems do not have this performance.

Daniil Ishenko d_ischenko@speereo.com

Project

Speereo Speech Recognition (SSR) is a foundation and main project of our Company.

SSR is a unique system that possesses certain features that are not available from our competition.

- SSR can operate on a client only. In other words it does not need Internet connection to operate.
- SSR is a low resource consumption system and can operate in non platform environment.
- SSR is noise robust, speaker independent, and reliable - accuracy over 98%.

Our project is a continuous development and installation of SSR in misc. areas of life.

Market

Speech recognition market. Today there are five companies in the world that can state that they have their own speech recognition system. Others use and license someones systems.

Speech recognition is on a rise. Everyone needs it. We believe that main areas of implementation and interest are:

- automotive industry;
- mobile industry;
- home appliances (multimedia, smart homes).

Company

'Titan information service' JSC (Speereo Software) was founded in 1998. In 2001 we've finalized continuous speech recognition system for English language; in 2011 - for Russian. Since 2002 Company is developing software with speech recognition. Since 2011 - Skolkovo resident. Privately owned. 3 shareholders.

No outside investment was done yet.

Investment opportunities

1. Universal remote with voice control - from \$250 000.
2. Voice Interface for automotive industry - from \$1 000 000.
3. POLtry - geosocial service - from \$100 000.

Stream Labs



www.stream-labs.com
www.ipstreamlabs.com

Danilov Alexey alex@stream-lasb.com

Stream Labs is a leading Russian company with more than 20 years experience which specializes in two key areas:

Television computer systems:

- Video and audio signal monitoring;
- Broadcast automation;
- Graphics playout;
- Interactive television support;
- Design of music, informational, news and sports channels and programs.

Video surveillance equipment

We produce: IP video cameras, IP video servers

Stream Labs is an international professional broadcast solutions development and manufacturing company, with offices in the USA, Europe, Taiwan and Russia, Uruguay.

Unicloud Labs



www.uni-cloud.ru

Dmitry Torshin dmitriy.torshin@ucluster.ru

Project Unicloud Labs company is a part of I.T. Group of companies – one of the leading Russian ICT companies, which offers its services to customers since 1990. The project team includes both young, ambitious and highly qualified staff and experienced experts who started their cooperation with the project given its high potential. The project is supervised by Mr. Tagir Yapparov, Founder and Chairman of the Board of I.T. Group; the project also includes some external experts: Professor Dr. Christof Fetzer from Germany and Mr. Denis Popov, PhD, from Russia. The project is headed by Mr. Dmitriy Torshin, Ph.D., who possesses an extensive project management experience in IT and telecommunications areas. Company Unicloud Labs LLC is developing cloud services for automating activities of small businesses and enhancing interactions between them.

Company

The most important part of R&D involves the creation of a unique integration cloud platform, which combines the cloud services enabling collaboration and team work developed by Unicloud Labs with the cloud services already existing in the market and the solutions offered by other vendors. In other words, the cloud platform is something close in idea to the class of IPaaS solutions.

Market.

The target market for the System is the SaaS customers. The platform and services (collectively known as a System) are tailored to the needs of this particular audience and are intended for a wide range of customers in the small-an-medium-business segment, which includes 1.6 mln. businesses just in Russia alone. According to expert opinion from Sergei Belousov, CEO and chief architect of Paralles company, "in the near future almost all small and medium enterprises will be acquiring their IT-Services from the 'clouds'". Considering that the System includes services for various business areas and can be expanded to include specialized services to cover the automation needs of all enterprises that use the Internet for their everyday activities, the number of potential customers (market volume) of the System in Russia can be estimated at 1.25 million companies (78.3% from total of 1.6 mln. companies). Investment opportunities The product, being developed by the company, has a high potential for its distribution within the international markets; however due to some legal and other peculiarities of particular countries it will require undertaking a minor adaptation to those markets including finding appropriate partners in different countries, who will be responsible for collaboration with customers in the countries concerned. The company is considering the possibility of attracting investments for entering the international markets.



Alexandr Khanin, CEO a.khanin@visionlabs.ru

The problem we're solving

Every business comes across the problem of its efficiency measurement and control. The aim of «smart camera» project is to help business to increase profitability by visual analysis and recognition:

Proposed solution

Reducing risks of extra expenses from frauds in banks, retail and restaurants.

Smart camera reduces the risks by recognizing frauds in the clients flow at retail stores, banks branches, restaurants, etc. «On-board» face recognition algorithms can operate in wild life conditions and alert security stuff in suspicious cases.

Increasing conversion rate and profitability per unit of retail space – audience measurement and stuff efficiency control.

Smart camera allows to optimize placements of the goods or select best place for promo zones according to hot and cold zones of the store, measure audience (gender, age, emotions) to control advertisement efficiency.

Increasing profit by transport access automation and registration.

Smart camera allows to increase traffic flow by transport access automation and to reduce costs on security stuff. Compact all-in-one device with embedded OCR

engine (works with license plates, railway car numbers, cargo numbers, etc.) automatically reads transport numbers, logs them and opens the gate if needed.

Compact smart camera with a full cycle of intellectual video processing and decision making «on-board» are intended to solve such challenging tasks

and to discover new possibilities for business and security.

Technical innovation of the proposed device is in «all-in-one» (no additional hardware required) and «ready-to-plug-in» (minimal technical knowledge requirements) concepts.

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Brief description of business activities R&D:

- adaptive light-shield filters (ASF) for human visual system,
- multi-standard active stereo glasses,
- glasses-free stereoscopic displays with full-screen 3D resolution.

«ASF» activity. Fast high dynamic range ergonomic ASF on liquid crystals for effective light protection of user visual system against excessive light level (sunlight, car headlights).

Scope: for manned space flights, aircraft pilots, drivers of various underwater and ground vehicles, for tourists, rescues.

«Multi-standard stereo glasses» activity.

Universal stereo glasses with automatic adjustment on the standards of various 3D displays (for replacement by a single product a lot of various active glasses available on the market).

Scope: for consumer 3D TV, computer 3D monitors, 3D video projectors.

«Glasses-free stereo displays» activity.

Binocular remote filter for glasses-free observation of stereo image with use of 3D displays originally intended for work with active stereo glasses.

Scope: professional work with 3D images during many hours: simulators of various transport vehicles, flight operators, designing, consumer 3D gaming, viewing 3D movies.

Ivan Nechaev larisa@autotracker.ru

Russian Navigation Technologies PLC is the largest developer and manufacturer of the GLONASS/GPS-enabled motor vehicle tracking and control systems in the Russian market and presents a multifunctional intelligent navigation system AutoTracker, which enables comprehensive tracking of traffic and other mobile objects in a real-time mode.

The AutoTracker system optimizes vehicle utilization, automates fleet management, raises drivers' compliance and ensures control over the state of cargo. The AutoTracker system helps reduce fuel and maintenance costs, rules out vehicle misuse and enhances the investor appeal of the carrier business. As of today, there are over 150,000 vehicles in companies from various industries of the market that are equipped with the AutoTracker system.

The Company takes pride in the experience of creating large (about 10,000 transport units) dispatching tracking centers, which is unique for Russia. The users of the AutoTracker system are both public sector enterprises and commercial companies of different sizes: from small and medium to large industry-specific holdings. Among Company's clients are the leaders of their corresponding industries, such as Tatneft OAO, Bashneft, GazpromNeft, Sibur, TNK-BP, the federal commercial network Magnit, Mosmetrostroy, Cherkizovsky Meat-Processing Factory, PEC ("First Expeditionary Company"), Sberbank of Russia and other. The system is also successfully operated in the state-owned enterprises, for example, Public Roads Administration of Perm, Ecotechprom GUP, Municipal Passenger Transport of Perm, Krasnodar Region Administration and other.

The Company accounts for 28% of the Russian market of vehicle tracking solutions by number of installed units of equipment. In 2011, RNT's consolidated revenue amounted to RUR 664.8 mln, and EBITDA to RUR 87.9 mln. The company's net profit was up to RUR 67.6 mln in 2011.

On July 7, 2010, RNT launched an IPO on the MICEX Market of Innovations and Investments. The IPO of RNT was lead managed by OTKRYTIYE Investbank and co-lead managed by FINAM Investment Company and Alor Invest. Thus, RNT has become the first Russian venture company to enter IPO.

In 2010, Russian Navigation Technologies, represented by its Director Ivan Nechayev, was awarded with Zvorykin Award in the "Innovative Product" category.

In 2011, RNT's success story made its way into the Global Entrepreneurship and the Successful Growth Strategies of Early-Stage Companies Report about the most rapidly growing companies in the world, a presentation of which was held at the World Economic Forum in Davos, and was also included as a business case into the curriculum of the Stanford University and a number of other USA universities' as an example of successful innovative start-up.

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Alexey Bersenev Bersenev.tenzo@gmail.com

Tenzosensor company developed polymorphic switches (PS) – high-tech polymeric multifunctional and reprogrammable switches. Main PS advantages also include their compactness, usability, low materials consumption and simple construction. On the basis of PS a new control system was developed – PolyJoystick (PJ) which has a fixed handle with a number of PS installed. Using only 2 PJ allows to perform high precision maneuvers on aircrafts and to control multijointed machinery, etc.

PSs and PJs can be broadly used in different sorts of devices and machinery starting from household appliances to aircrafts, forest-cutting and engineering industries, etc.



«AVTOSTANKOPROM»Ltd



www.epilam.ru

Abdurashid Vokhidov

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Development and introduction of the technologies of application of nano-scale multi-functional coatings on the basis of fluorine containing SAA (epilamization).

Delivery of the equipment for application and fusing the coatings.

Center for Technology and Innovation

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EnergLesProm



www.energolesprom.ru

Andrey Grachev

Sergey Zabelkin

Energy H



Chernovol Yury director_1@list.ru

Project

«Development of the production technology of carbon microcontainers of hydrogen of nanodisperse fuel»

Scope

The wide range of use of microcontainers of hydrogen of nanodisperse fuel allows to use this power-effective technology from a land, sea, air transportation and other consumer devices to space objects.

Profit of the project is

Sales of licenses, the equipment, technology and microcontainers of hydrogen of nanodisperse fuel it is estimated in tens of billions euro.

Purpose of a business trip

B2B, Search of the operative and strategic investor, scientific and technical partner.

«FM Lab» Ltd

Andrei Chertkov



Gazohim Techno

www.ngt-m.ru

Denis Pchelintsev

«Gydroenergospetsstroy» LTD



www.gespecstroy.spb.ru

Egor Bikov, Evgenia Raevskaya,

Muhtar Aripovich, Vladimir Egunov

Project

LTD «Gydroenergospetsstroy» was established in Moscow in 2006 than there was a branch office opened in 2008 in Saint-Petersburg. The main activities of the company are scientific research and experimental development in the field of alternative energy sources, organic architecture, production and technical design. In 2011 year SPA Gydroenergospetsstroy became a resident of the innovative center Skolkovo.

Company

A system of the active coast's protection, coastal and hydropower facilities protecting from the storm impact, that creates the interference of incident and reflected waves and converts destructive wave energy into the useful work. System can be placed on the existing and the newly created coastal facilities. With its help it is possible to protect the coast line from the storm impact without capital hydropower structures.

**«IVEC RU» Ltd**www.ivec.com.au*Viktor Petunin*

The company is developing a wave electric power station - the kinetic wave energy converter.

JSC Energy Efficiencywww.nf-venture.ru
www.nf-venture.com*Sergey Markov, Sergey Shubenkov, Dmitry Bagaev***«Kongran» Ltd***Sergey Bibikov***Lab&Fab**www.lab-n-fab.com*Sergey Nikolenko***Laboratory Kyumodul Ltd**www.qmodule.ru*Armen Nunuparov, Martyin Nunuparov*
mnunuparov@gmail.com**«lithionite» Ltd**www.lition.ru*Nikita Rats***«Low Energy» Ltd**www.smallenergy.ru*Pavel Batrasov pavel-boris@mail.ru***MEVODENA OJSC**www.smallenergy.ru*livshits@sut.ru*

The Company. Project/Technology Composite materials based on group 5 metals and their alloys with other metals. Selective membranes based on the above with significantly higher specific productivity and substantially lower precious metal content.

Proven advantages of the technology over main competitors.

The transport of hydrogen through the lattice of group 5 metals (V, Nb, Ta) is orders of magnitude faster than through Pd. Much higher speed of H₂ transport compared to Pd demonstrated.

Two orders of magnitude less Pd used.

Expected advantages of the technology over main competitors.

The technology being developed is expected to be radically cheaper as compared to the existing one. Due to that the technology extends the market of the direct conversion of hydrocarbon chemical energy into electricity dramatically.

Current Status pre-seed R&D. Laboratory samples of composite membranes (Pd-V-Pd and Pd-Nb-Pd) of planar form have been produced.

Experimentally was demonstrate that :

Pd-V-Pd and Pd-Nb-Pd membranes let through hydrogen more than an order of magnitude faster than a palladium membrane of the same thickness.

Intellectual Property

Method of connection of articles from metals and / or alloys with different solubility of hydrogen. Application number 2011141920. The positive decision of 22.08.2012.

Method of making of articles of a given shape from inductile alloys based on group 5 metals with low solubility of hydrogen. Application number 2011152822. The decision to grant a patent November 9, 2012.

Utility patent number 110541 «Device mass spectrometry hydrogen purity and quantitative composition of trace gases.»

Team

A.I. Livshits, PhD, Professor, Department of Physics, SPbSUT, Director of Research and Education Center «New Energy Technologies for Informatics and Telecommunications» (REC NETIT) - head;

M.E. Notkin, PhD., senior researcher at REC NETIT,

V.N. Alimov, PhD, associate professor SPbSUT,

A.O. Busnyuk, PhD, researcher at REC NETIT,

J.E. Gorbachev, PhD, Professor, Head of Research Geolink Technologies Ltd.;

Y. Hatano, PhD, Professor, Hydrogen Isotope Research Center (Japan),

R. Bredeson, PhD, Research Director, SINTEF (Norway);

A. Paristov, researcher at REC NETIT,

E. Peredistov, researcher at REC NETIT. The Market. Size: \$6.5 Billion Backup Power Market Target markets:

Power plants and power supplies for telecommunications industry, land transport, gas industry, cogeneration systems for residential applications, military applications, marine, portable communication and informatics facilities.

**Skolkovo presents**

«MIKS» Ltd

www.tgtoil.com

Maksim Gladky



«Power Semiconductors» Ltd

www.tgtoil.com

Vladimir Kozlov kozlov@fidtech.com

Brief description of the company.

Research & Development of Power Semiconductor Material and Devices for Energy Efficient High Temperature and Radiation Resistant Electronics including High Speed Pulse Power Electronics for Ultra Wide Band Electromagnetics : UWB Technologies for Telecommunications, Ranging, Sensing and Short Pulse Bioelectronics.



«RRT» Ltd

www.globalrrt.com

Evgeny Bunin evgeniy.bunin@gmail.com

Project

PRIS technology, the company's key product, is an essential technology for oil refining industry in today's Russia taking into consideration the transition for the cheaper and cleaner gasoline production

Company

RRT is an international provider of advanced technologies in modern oil refining processes

Company mission:

Development of modern oil refining technologies in order to enable modernization of Russian oil refineries and promote Russian origin technologies worldwide.



Russian superconductor

www.rhsc.ru

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The Russian superconductor corporation was established in 2008 to conduct research and development in energy efficiency, electrical superconductivity, instrumentation and electronics. The highly professional team of researchers and developers successfully implements a number of projects. One of the projects is a flywheel energy storage. This product was manufactured for using in energy systems of low and high energy and can function as a network controller frequency and power, uninterruptible power supply, buffer storage of energy, heat recovery energy. To date, the experimental model of the flywheel energy storage up to 4 MJ is produced and tested.



Savant Research and Development

www.s-avant.ru

Khudyakov Stanislav

Reduction of energy losses in heat structures and networks with prolongation of their service life due to use of flushing technology with the use of an innovative chemical.

Scientific-Technical Center Turbogeneratsiya

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«SONOGRAM» Ltd

www.tgtoil.com

Yulia Maslennikova

«Leksistems» Ltd

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NEUROSYNTEK



Alexander Ryzhov alexander.ryzov@gmail.com

Project

Neurosyntek is rapidly emerging as a leader in the field of regenerative medicine, a group of biomedical approaches to clinical therapies that involve the use of stem cells to replace or regenerate human cells, tissues or organs without the risk of tumors to restore or establish normal functioning. Of particular interest is the area of bio-informatics where we can build processors based on biological neural networks for intelligent machines.

Market

We are aimed to optimize the massively inefficient \$6 trillion healthcare market by dramatically driving down costs and providing effective solutions for stem-cell therapies. In phase 1 of our product roadmap implementation, we are addressing the \$30B cost of care for stroke survivors.

Investment Opportunities

Neurosyntek is currently testing a beta product and is developing an improved revision for release in August 2013. The initiation of human trials through our alliance with practicing neurologists and neurosurgeons are a testimonial to the acceptance of our solution and far evolved commercialization efforts.

Sequoia Genetics



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Project «Personalized genome diagnostics» is aimed at developing integrated solution for medical geneticists that will allow real time genetic test conduction based on the whole human genome sequencing data. This web app will help doctors to choose best genetic test in any particular case and instantly get medical report.

Market

Range of genetic diagnostic services are constantly grows. This includes disease diagnostics, risk assessment, family planning, pharmacogenetics and genotyping for transplantation or blood transfusion.

Company

Sequoia Genetics was set up by Alkor Bio Group in 2012 for the elaboration of molecular-genetic diagnostic techniques. Sequoia Genetics goal is integration between genetics, biomedicine and IT and introduction of its benefits to the health care system.

Investment opportunities

Product commercialization could be performed as software selling, genetic data analysis service or comprehensive genetic testing solution for health care institutions.

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Project Name and summary «Machine M500»: development of a conceptually novel «Machine M500» furnace to grow extra large (up to 500 kg) synthetic sapphire crystals of high optical quality with the Musatov process. Mass enhancement of the industrially grown crystal from 85 kg to 500 kg will 4-5x reduce specific power consumption for 1 kg of grown crystal and 6x efficiency increase by time factor. The Market. Target markets: The «Machine M500» will satisfy demand for large produce from synthetic sapphire (slabs and other elements for lasers, windows, screens, wafers of big diameters etc.

Main customers for «Machine M500» will be crystals for lasers.

Top synthetic sapphire manufacturers with join world market of 60%:

- «Monocrystal» (RF) - 20% of world market.
- «Kyocera» (Japan).
- «Namiki Precision Jewel Co» (Japan).
- «Rubicon Technology» (USA).
- «Sapphire Technology Company» (South Korea).

Until recently no more than 25 companies manufactured crystals on corundum base. Due to the excess demand for crystals in 2010, many small and medium companies emerged and in 2011 there are already more than 100 companies on the market, more than 40 producers plan to enter the market soon. In 2011-2012 more than 1200 growth machines were ordered worldwide. Main customers are located in China, Japan and South Korea. It is forecasted that global demand for growth machines will be about 1200 units per year till 2015.

The Company. Project/Technology

1. «Machine M500» grows crystals on corundum base of extra large size (up to 500 kg).
2. Obtained high quality crystals are ultrapure, homogeneous, low-stressed.
3. One kilogram of crystal grown with this plant costs 45% less than that of analogues plants thanks to the following innovations:

- specific power consumption for 1 kg of grown crystal is reduced;
- less time consuming process;
- less expensive raw material used with no quality-loss;
- crucible volume is used 100%;
- high per cent of successful crystal growth yields.

Current Status

The project is currently on the R&D phase. This phase objective is to develop a composite crucible combined with a heater and a device to add raw material into the crucible during the melting process.

Team

Tyutin Vladimir – project manager, 2 successful start-ups received 2nd round of VC financing, in business since 2000.

Ulyanitskii Vladimir - scientific consultant, 100+ publications, 10+ patents, developed the best domestic equipment for detonation spraying.

Stavnichaja Tatiana - marketing specialist, 1 start-up launch on the market, 15 yrs in innovative hi-tech business.

«Femtonika» Ltd



Matvey Konyashchenko matve@bk.ru

Project

The project is aimed at development of an industrial femtosecond laser for precision micromachining and nanostructuring of various materials. This commercial product will be implemented as a laser radiation source for such industrial applications as photomask fabrication and repair (used in microelectronics for production of chips via lithography, fabrication of TFT-panels etc.), solar array production, surface structuring at micron and sub-micron level for various applications, machining of ultra-hard materials and alloys.

«Radsyntech» Ltd



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Company:

Developing and bringing to the market innovative technologies for the energy and new materials sectors, providing better resource productivity to meet and balance future demands

«RamMiks» Ltd



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«SvetlK» LLC

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«SvetlK» development of the light-beam crystal growing machine «SvetlK» for fast growing of high-temperature crystals. The crystal growing machines are in demand to carry out R&D in new materials. «SvetlK» makes it possible to industrially grow functional crystals which can not be obtained otherwise.

The Market Target markets.

«SvetlK» allows growing a wide range by composition, shape and size of crystals in relatively short time. That is why the machine will be used to:

- carry out R&D in crystallography;
- grow ferromagnetic crystals;
- grow crystals for application in industrial laser systems;
- compact powder raw material;
- grow synthetic gemstones for jewelry.

Recently the crystal market's CAGR – has reached 30%. This tendency is connected with expansion of crystal application spheres, laser and electron engineering efficiency enhancement. As the result, new crystal manufacturers are entering the market.

Currently worldwide there are:

- more than 1.000 companies that grow crystals. The most part of them renew their equipment annually. Thus, the global market can be estimated at 1.500 units annually, which totals to at least \$400 M per year.
- more than 520 companies carrying out R&D in crystal studies.

Thus, average global market can be estimated at 100 units annually, which totals \$20 M per year.

Total global market can be estimated at 1 600 units or \$420 M per year.

The Company The «SvetlK» machine light beam machine is characterized by:

1) unique design of the light-beam melting assembly of the «SvetlK» machine, which provides the following, namely: energy efficiency of not less than 50% (the most similar serially produced facilities have the energy efficiency of ~ 20%),

2) the melting temperature to be obtained at the machine is up to 3000°C and the gas control system will be provided, too. Thus, crystals will be grown in both vacuum and optional gas environment at the pressure of up to 100 atmospheres (the closest analogues do not provide pressure of more than 10 atm). Thus the same machine will allow to obtain different crystals even such crystals which are impossible to grow with conventional processes because of their high melting temperatures, the material aggressiveness and difficulty to have pre-specified quality.

3) growing a wider variety of crystals of shape and composition for different applications

«SvetlK» machine is a machine to be applied in both industry and research, a wide range of crystals by composition and shape is possible to grow in short time. This equipment is characterized by the following advantages:

- manufacturing cost is \$250K which is 1.5x less expensive than that of the closest analogue and lower than the current market one,
- high energy efficiency of 50%, which is 1.5x higher than that of the closest analogue,
- low running costs (the melting system parts' service life is 4x higher than that of analogues),
- expanded functions (a wide range of crystals by composition and shape is possible to grow).

The project is at the stage of incomplete research. Presently, there is an incomplete machine set including the melting assembly; 3D plane-parallel displacement system, control unit with the respective software package. The set was used in order to get the initial experimental data for the further design activities.



Skolkovo presents



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