



International program
«Sun stream»



www.ip-sun-stream.com



International program
«Sun Stream»



Who are we?

International program «Sun stream» is a balanced integrated environment and partner network, whose elements are oriented to administrative, management, technological and investment financial support of the introduction process and practical use of energy-conserving, energy-efficient technologies, equipment and facilities, ideas and solutions

International program «Sun stream» was created as a partner program, which affords to use the world's latest achievements in the sphere of energy efficiency, integrate various tools into complex solutions and bring them to introduction in the government and commercial projects of any level



International program
«Sun Stream»



Important

Mission of the international program «Sun stream» - *to increase living standards and life quality by means of systemic using of renewable energy sources and energy-efficient technologies, onward conversion to the ecological “green economy”*

*Participants of the international program «Sun stream» come out for giving **the priorities to ecological and socio-cultural values**, considering that material production, using technologies, economy- all these should be complied with requirements of social morality and environmental law. In our “green”, “sun” sense ecology sees as special, integrated, systemic, harmonious beginning of any sphere of human activity.*

Our goal

The primary goal of the international program « Sun Stream » - is systemic integration of

- *organization,*
 - *management,*
 - *technological,*
 - *technical,*
 - *ecological,*
 - *financial*
 - *and investment solutions,*

forming of effective mechanisms and tools, partner network for promoting technological solutions in the area of energy production, energy efficiency, ecology, “green” construction, life ecologization



International program «Sun Stream»



Strategic tasks

- Providing the program's participants with services on the base of own effective organizing, production, innovating, investment and financial infrastructure
- Development of the "separate investment environment" for the financing projects of sun energy and other kinds of renewable energy
- Creation of the modern scientific-research and design and experimental base in the sphere of renewable energy and wide implementation of elaborations into production
- Formation of the finished finance-technological products for promoting them at the world market
- Active participation in forming Russian market of renewable energy
- Optimal using of support systems in the countries of the world of innovations and renewable energy sources
- Transformation of ecological installations into ecological requirements, into norms of practical activity in the sphere of "green" construction
- Organization of personal training for using and supplying of energy-conserving manufacturing equipment, using in all spheres of activity and life.

Program Projects

- ❖ **Autonomous “Green Settlements”** – construction of comfort housing in the ecologically clean natural environment with autonomous solution of sustenance issues
- ❖ **“National Green Standard”** – implementation of new energy-conserving and ecological standards into further designing and construction
- ❖ **“Separate investment environment”** - organization of mechanisms and management tool of financing of the Program’s Projects
- ❖ **“Power Efficient Budget”** - creating a complex product that combines technical and technological, organizing, financing, investment, administrative and managerial solutions in the field of energy conservation and budget
- ❖ **“Silicon-on-Don”** - creation of integral production of technical components for sun energy
- ❖ **“International Innovative Scientific and Educational Centre”** - forming of systems for staff training in the field of sun and other kinds of alternative energy on the basis of programs of education and technologies export
- ❖ **“Information and communications center “Sun stream”** - popularization of energy-conserving idea, “green economy”, priority of ecological values; creation of information support of the Program and development of its communication



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Brief overview



Autonomous “ Green Settlements”

Construction of comfort housing in ecologically clean natural environment without any factors of its pollution, with limited architectural-landscape design, with effective using of renewable energy sources, with system accounting of ecological, engineering-technological and social factor, with priority of human and economic values



Autonomous “ Green Settlement” Project - It is very integration and harmonically unites construction, engineering-technological, ecological and social solutions. As a result we have balanced project with priority of life ecologization , corresponding to high socio-cultural standards

**Autonomous “ Green Settlements” :
effectiveness**

- ❖ Cost saving for caloric energy – nearly 70%
- ❖ Cost saving for electrical energy- nearly 30%
- ❖ Creation of new workplaces in the region
- ❖ Improvement of environmental situation
- ❖ Implementation of the National "Green Standard" into social sphere, ecological certification of the property units
- ❖ Promoting of own high-technology elaborations in the sphere of energy conservation
- ❖ Budget costs reduction for recovery and modernization of outdated heating and other engineering networks of municipal units
- ❖ Staff training in the International Innovative Scientific and Educational Center

**“Autonomous Green Settlements”:
Main ways**

Development of ecological
kinds of transport

Ecological
way of life

“Green” standards of
engineering and
construction

Basis-
principles of
“passive” and
“active” house

Organic
architecture

Use of renewable
energy sources

Modern urban
infrastructure



“Power Efficient Budget”

Creation of complex product, united technical and technological, organized, financial, investment, administrative and management solutions in energy conservation budget sphere



State-private partnership in “Power Efficient Budget” provided for implementation project investments of resource-conserving equipment

**"Power Efficient Budget":
Main solutions**

Wind energy,
thermocompressors

Sewage treatment,
utilization of solid
domestic and
industrial wastes

Power efficient street
and underground
lighting, street and
pavement marking

Electric and ecological
transport

Traditional,
power efficient
electric generation

Water vitalization,
water conditioning,
water treatment

"Sun" parks
(electric generation)

Effective using of thermal
energy (recirculation, heat
insulation)

High-temperature helio (sun)
collectors

Modern
management system of
municipal services

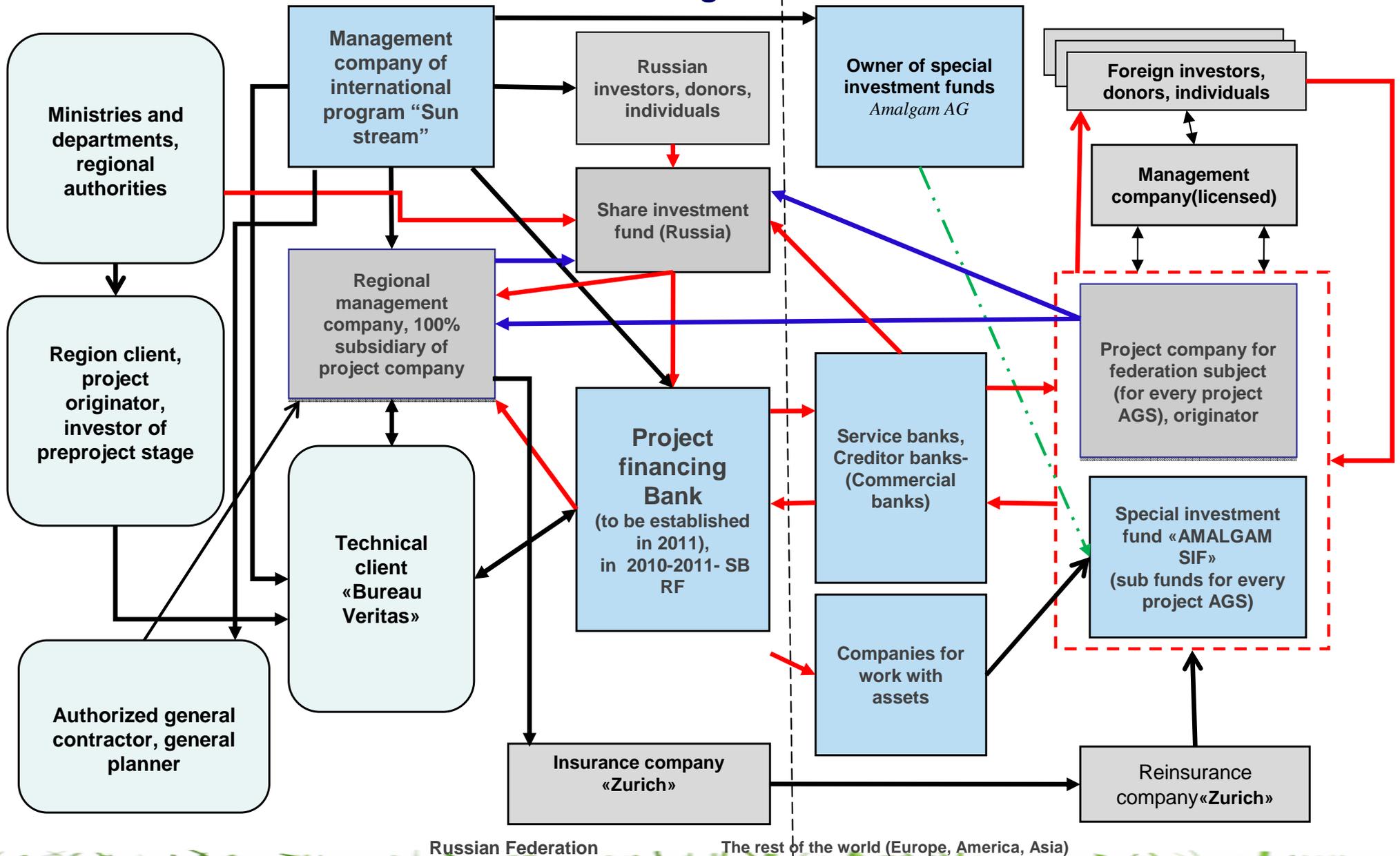


"Separate investment environment" -

system organization of mechanisms and tools provided for project financing of the Program



Success and reality of ambitious projects realization of International program "Sun stream" are provided for financial and investment resources of "Separate investment environment". "Separate investment environment" is a mediation system of proposed and created basis structures, mechanisms, infrastructure elements that allows offering the most effective investment solutions for every project. At the same time we use the single tool and loan process infrastructure directly from the international capital market



**"Separate Investment environment":
*Created resources***

- Single cyberspace for the participants of the project of the creation of the separate investment environment
- Complexity in the applicant service of investments and investors
- Coordination of the investors activity, state structures, commercial organizations and investors in branch (regional) markets
- Long-term experience of use of separate elements of investment environment in practical activities of its participants
- Available administrative, organizational and command potential of initiators and participants of the project
- System in creation of business model and mechanisms of its realization
- Absence of language, communication, countries barriers in distribution of the branch information
- Flexible use of all possible set of financial tools for attraction of investments into branch (regional) projects
- Use of modern organizational, exchange and information technology in realization of trading, investment operations

**"Separate Investment environment":
*Basic terms of projects financing***

Financing volume – not less than 90% of the total amount of investment expenses

Term of investments return - from 7 till 17 years

Moratorium on return of the basic debt and percent for building, delivery and installation of equipment and project start-up in operation plus 6 months from the moment of putting into operation

Effective rate of financing – not above the **Central Bank's rate**

Assets of the created (developed) enterprise (a management company of the Regional project), its shares, pledge of the ground area of building, the right to control over financial streams, insurance of investment risks, the incomes received during realization of the project, a guarantee of federation subject, comfortable letters of the enterprises of a partner network of the project are the maintenance of investments .

Term of financing from 8 till 11 months

Cost of work on financing organization - 1 % from project cost (join in investment expenses under the project)

Return of investment resources is spent in the end of the loan period, return term is defined by the business project plan

Cash money resources (not less than 2 %), commercial assets, bank guarantees, insurance policies, other assets by agreement are accepted as starting financial resources in volume to 10 % from necessary volume of investment resources from the regional customer (general contractor)

**"Separate Investment environment":
Main resources**

Organization
of investment
and credit pools

Bonded loans let out and
placed in the world
financial markets

International programs of
export support of national
technologies

Consolidation of sources
of the budgetary
financing

Means of the
international
ecological funds
and programs

Use of possibilities
of umbellate
investment funds
and the closed share
investment funds

National and
international "green"
investments and
credits





International program “Sun stream”

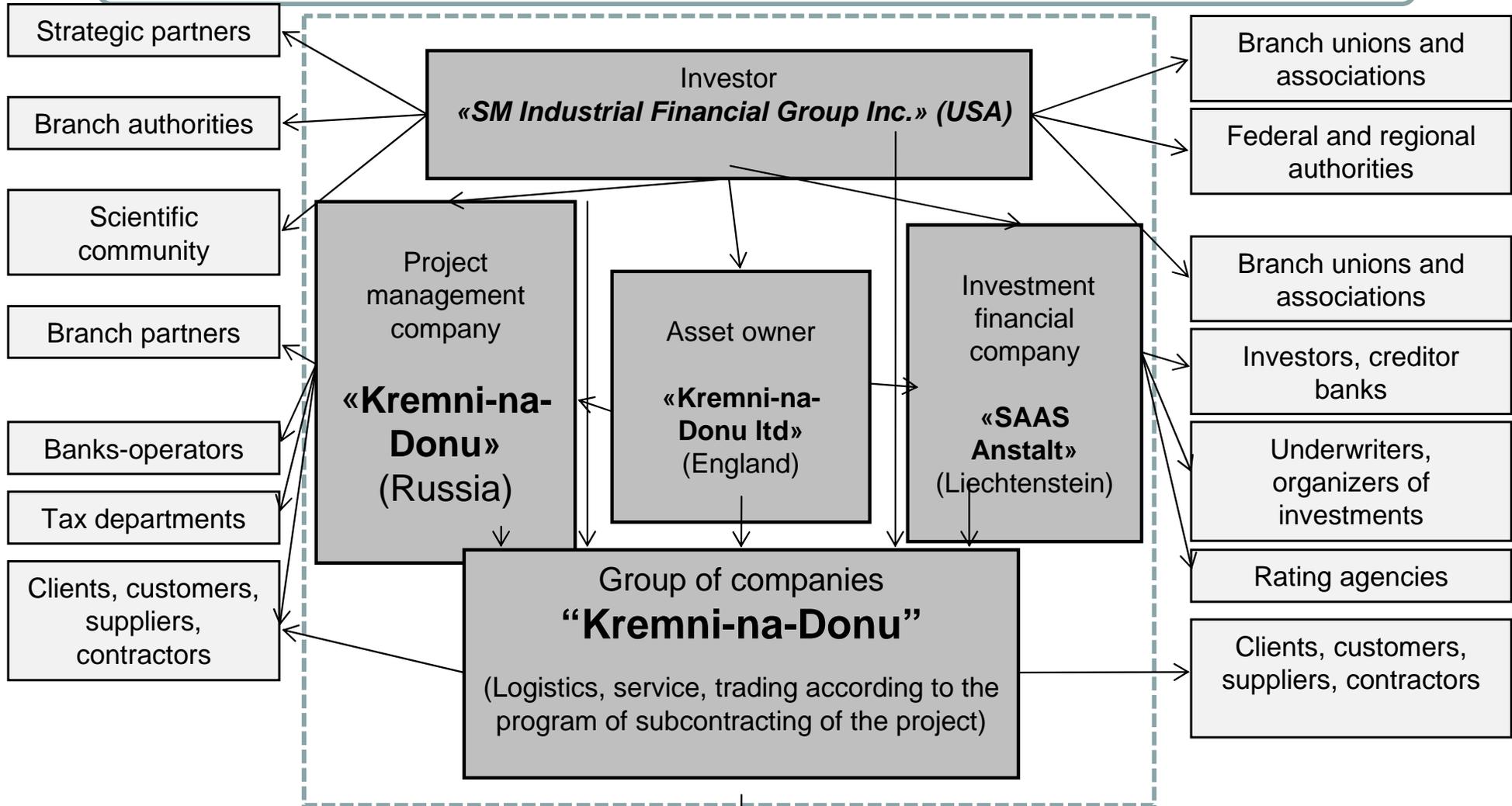


“Kremni-na-Donu”

Creation of the integrated manufacture of technological components for solar power engineering

Within the project "Kremni-na-Donu" the integrated manufacture of polycrystalline silicon and devices of photovoltaics will be organized. The project provides realization of two main priorities – the maximum quantity of repartitions of silicon «from quartz to watt» and creation of trial manufacture on working off of perspective "silicon" technologies. The Industrial and technological park «Sun stream», created round projects the CIP of Gukovo, main of which is “**Kremni-na-Donu**”, will allow to assign to a city the status of the largest innovative platform of the south of Russia.

“Kremni-na-Donu”: project business model



Subjects of the silicon market

**“Kremni-na-Donu”:
Efficiency of investment**

Description	Value
Volume of investments, million Euros	1,230.00
Net present value - NPV (till the end of 2018), million Euros.	484.00
Internal rate of return – IRR (till the end of 2018), %.	17.5%
Payback period (for total sizes), months	36
Payback period (for discounted sizes), months	60
Credit payment term (at annual interest rate of 6%), months	78
Project average discount rate for euro, %	9%
Average annual gross profit (upon reaching design output capacity)	480.00 – 500.00

"International Innovative Scientific and Educational Center"

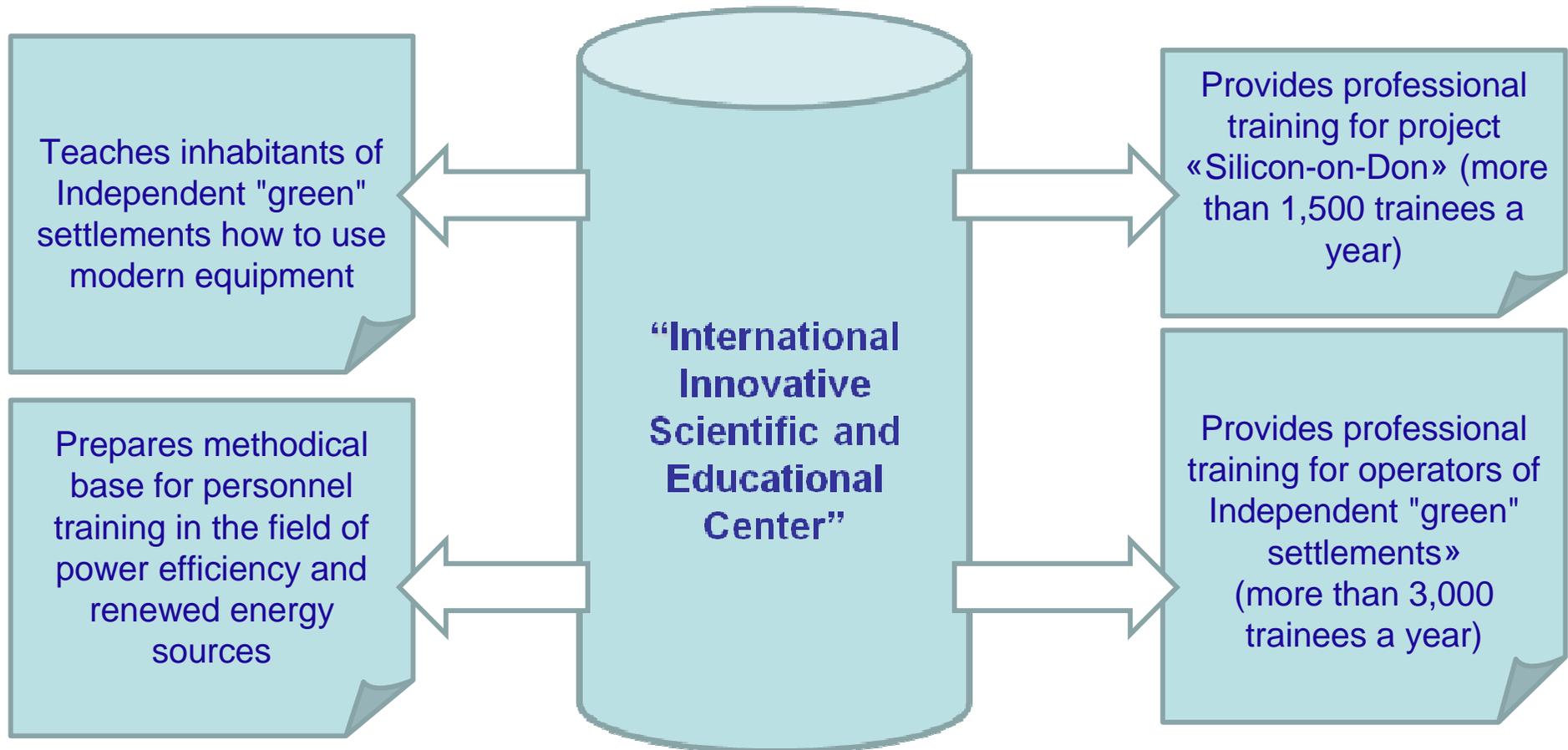
System formation of a personnel training in the field of solar and other kinds of renewed power on the basis of export programs of education and technologies



The project includes:

- Center for training experts in the field of solar power
- Renewed energy sources-oriented Innovative center
- Specialized HR agency

"International Innovative Scientific and Educational Center"



"National "green" standard"

Adoption of new power saving and ecological standards in design and construction



"Green" standards lay down terms of creation and operation of ecological, power saving structures and areas. It provides transition from unspecific efficiency index of ecological work to accurate engineering classification of ecological approaches, transformation of ecological ideas into ecological standards and norms of practical activities.

**"National "green" standard"
Criteria for:**

- construction site
- landscape and architectural decisions
- water saving and quality
- recycling system of all kinds of waste
- construction materials
- vehicles and infrastructure
- objects of culture, public health services and food
- internal environment
- rules of a regional social life
- power efficiency
- technological resources
- economic management system



International program “Sun stream”



Information and communications centre “Sun stream”

Popularization of power efficiency ideas, "green" economy, priority of ecological values; creation of information and analysis support for the Program, development of its communication environment and a partner network

The information and communications centre includes:

- web portal at www.ip-sun-stream.com
- online knowledgebase in the sphere of power efficiency and renewed power
- club “Sun stream”
- magazine “Sun stream”
- system of public actions popularizing the Program, ideas of power efficiency and ecological way of life

Key business partners of the program

- ❖ Group "AMALGAM", «Delloitte», Investment group "WEB PLAN", IC "Zurich", Sberbank (**investment, bank and insurance support for the program**)
- ❖ South Russian state university of economy and service, International educational consortium "Russia-Germany", Southern federal university - (**educational support for the program**)
- ❖ "Sun wind", "Tehnoprom", "New SUN WAY", "QUINT TECH", scientific research institute OCHM, "DAKT Engineering", "Rolandia GmbH" (**technological support for the program**)
- ❖ Bureau Veritas, Academy of Power Researches (**ecological support for the program**)

Program participants

- ❖ **Austria, Russia, Germany, Israel, Russia, USA, Taiwan, Switzerland, France, – suppliers of engineering and technological solutions**
- ❖ **Algeria, Argentina, Bahrain, Russia, Saudi Arabia, Taiwan, – projects "Green standard", "Power Efficient Budget", "Silicon-on-Don"**
- ❖ **Algeria, Argentina, Afghanistan, India, Jordan, Moldova, Ukraine, Russia, Romania, Syria, Serbia – "Independent " Green " Settlements"**

Program collective management bodies

- ❖ **Supervisory board** (ensures public support of Program-related activities, exercises overall control and supervision over its activity)
- ❖ **Coordination council** (generates development strategy and priority lines of activity of the Program)
- ❖ **Advisory council** (provides advisory services for Supervisory board and Coordination council)



International program "Sun stream"



Heads of Program collective management bodies

- ❖ Chairman of the Supervisory board – **Abiht Lotar**, Director, Institute of German structural policy and economic development.
- ❖ Chairman of the Coordination council – **Sergey Nehaev**, Chairman of the Board, Investment Group "WEB PLAN"; Chairman of the Board, "Kremni-na-Donu"
- ❖ Chairman of the Advisory council – **Konstantin Koshkin**, Deputy Director General for Research, NPP "KVANT"

Supervisory board

- ❖ **Dmitry Lyubomudrov** – Head of design club
- ❖ **Valery Belov** – "Delloitte" company partner
- ❖ **David Fardel** – Vice President of "Bureau Veritas" Group
- ❖ **Alexander Marchenko** – Director of the Marketing and business development center of the Russian Union of Industrialists and Entrepreneurs and Chamber of Commerce and Industry of the Russian Federation, President of Organizing Committee of "Silicon of Russia"
- ❖ **Elena Barsheva** – Director General of IC "Zurich"
- ❖ **Vladimir Skachok** – Head of "Siemens" division

**Heads of divisions and development projects.
Members of Coordination council**

- ❖ **Alexander Belyaev (Germany)** – EU and international donors' programs
- ❖ **Ivan Brink (Russia, Germany)** – educational facility, head IISEC
- ❖ **Itshak Elkind (USA)** – international cooperation
- ❖ **Alexander Lagovsky (Russia)** – "Power Efficient Budget", innovations
- ❖ **Sergey Nehaev (Russia)** – "Separate Investment environment"
- ❖ **Elena Nikitina (Ukraine)** – information and communications center "Sun stream"
- ❖ **Vadim Panaev (Russia)** – program administration
- ❖ **Alexander Fedorov (Switzerland)** – investments
- ❖ **Nikolay Yakovlev (Russia)** – regions

Advisory council

- ❖ **Marsel Bikbau, coordinator for building materials and technologies**
- ❖ **Boris Gribov, academician**
- ❖ **Vladimir Zhavoronkov, coordinator for ecological transport**
- ❖ **Evgeni Zenyutich, professor**
- ❖ **Alexander Inozemcev, Cand.Tech.Sci.**
- ❖ **Konstantin Koshkin, coordinator for self-contained power**
- ❖ **Grigory Matveev, coordinator for "Green" Standards»**
- ❖ **Nikolai Stepanenko, coordinator for design**
- ❖ **Alexander Hudysh, coordinator for photovoltaica**



International program "Sun stream"



Organizational structure

- ❖ **Program management companies** ("Amalgam Group AG", "GELDBERG CAPITAL GmbH" (Switzerland), "Rolandia GmbH" (Germany), Southern management company, Investment group "WEB PLAN")
- ❖ **Regional servicing company «Sun stream. Region»** (registered in the region of project realization by program management company, by the owner of the technological solution and by the regional organizer of projects)
- ❖ **Regional bank-operator** (banks, accepting regional budgetary guarantees of projects realization of the Program, including Sberbank)
- ❖ **Insurance company** – "Zurich" (Switzerland)
- ❖ **Project technical customer** – Group Bureau Veritas (France)
- ❖ **Financial adviser** - "Delloitte" (USA)
- ❖ **International program «Sun stream» participants** (as required for specific project implementation)



International program
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Owner of International program
“Sun stream” -
«Amalgam Group AG»(Switzerland)



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