PROGRESS IN INNOVATIVE ACTIVITY IN KAZAKHSTAN: PROBLEMS AND SOLUTIONS



JSC «National Innovation Fund» Tokyo, Japan

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- About Kazakhstan
- National Innovation System
- Problems and difficulties
- Solutions



ABOUT KAZAKHSTAN



Location: Central Asia, northwest of China; a small portion west of the Ural River in eastern-most Europe Geographic coordinates: 48 00 N, 68 00 E Map references: Asia

Area total: 2,717,300 sq km; land 2,669,800 sq km; water 47,500 sq km

Area: comparative slightly less than four times the size of Texas

Land boundaries: total 12,012 km, border countries: China 1,533 km, Kyrgyzstan 1,051 km, Russia 6,846 km, Turkmenistan 379 km, Uzbekistan 2,203 km Coastline: 0 km (landlocked); Caspian Sea (1,894 km) Climate: continental, cold winters and hot summers, arid and semiarid

Natural resources: major deposits of petroleum, natural gas, coal, iron ore, manganese, chrome ore, nickel, cobalt, copper, molybdenum, lead, zinc, bauxite, gold, uranium

Land use: arable land 8.28%, permanent crops 0.05% other 91.67% (2005)

ABOUT KAZAKHSTAN

Economic trends

- Strong macroeconomic performance and favorable investment conditions
- Average annual GDP growth rate in 2007-08 at around 10%
- Kazakhstan is the first former Soviet republic to repay all of its debt to the International Monetary Fund (IMF) in 2000, seven years ahead of schedule
- The economy is based on oil export which generate 40% of the country's total revenues
- Huge foreign investments, second after Russia among the CIS (the Commonwealth of Independent States)

Main branches of industry

- Kazakhstan is rich in natural resources: oil & gas, coal, copper, zinc, uranium and silver. Oil production accounts for 30% of GDP.
- Building & construction sector growth 30-40% a year.
- Manufacturing sector is not well developed given the fact that almost all capital and consumer goods are imported into the country.
- The agriculture sector contributes nearly 7% of GDP and employs around 20% of the active population. Kazakhstan is the sixth-largest producer of grains (includes wheat, rice and barley) in the world.
- Services sector is growing and contributes nearly 55% to the GDP.

International trade

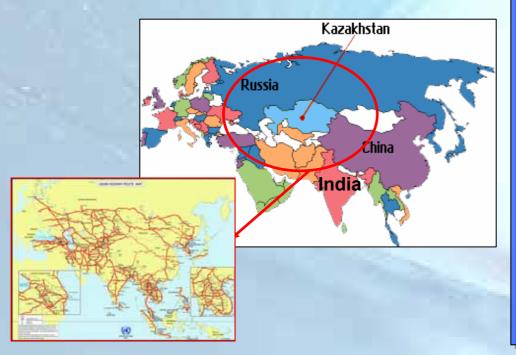
- Kazakhstan is open to international trade.
- Oil exports account for 50% of the total exports.
- Foreign trade is almost equal to GDP.
- Kazakhstan's top three export partner's are: Switzerland, Italy and Russia. The commodities mainly exported are mineral fuels & oils, iron & steel, copper, and inorganic chemicals.
- The top three import partners are: Russia, Germany and China. Kazakhstan mainly imports machinery, mineral fuels & oils, vehicles, articles of iron & steel, and electric & electronic equipment.

ABOUT KAZAKHSTAN Strategic Location

Length of China–Europe route

Origin	Routes	Distance*
Lianyungang (China)	via Kazakhstan-Russian Federation	9,200 km
Shenzhen (China)	via Kazakhstan-Russian Federation	10,300 km

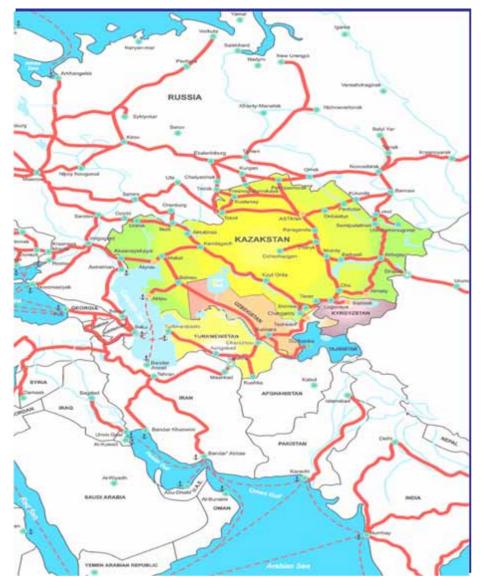
*Distances calculated with Frankfurt (Germany) as final destination.



Advantages

- Gateway from Central Asia and Europe to China and South East Asia
- International airports
- Stabile political situation
- Aggressive government initiatives such as:
 - E government
 - Almaty as a Financial Centre
 - Space development programs
 - Alatau IT city
- Kazakhstan is the most developed economy in Central Asia with GDP per capita of \$4400
- FDI investments: 28.7 billion USD, (2000-Sept 2005)
- Positive investment climate
- Russia, Turkey, EU, Caspian region countries connected routes

The Opportunity: Large Untapped Market



- Combined population (incl. Russia, Caucasus) = 283 Million and GDP of 1.1 trillion (USD)
- Customs Union with Russia and Belarus to be signed in 2010
- Large demand for IT and telecom equipment in all Central Asian countries due to low penetration rates
- Average compound annual growth rate (CAGR) for PCs and servers and other peripheral in Kazakhstan and neighboring countries is more than 20% a year
- Impending deregulation of the telecom market in KZ and other CIS will spur further growth
- IT market for Central Asia/Eastern Europe = \$22.4 billion
- Growth of IT Services Market forecast for Eastern Europe: 7.83% (CAGR 2003-2008)

NATIONAL INNOVATION SYSTEM (NIS)

May 17, 2003 Approved a Strategy of Industrial and Innovation Development of Kazakhstan till 2015

«...Creation of institutional support of industrial and innovation development as well as stimulating of economy diversification ...»

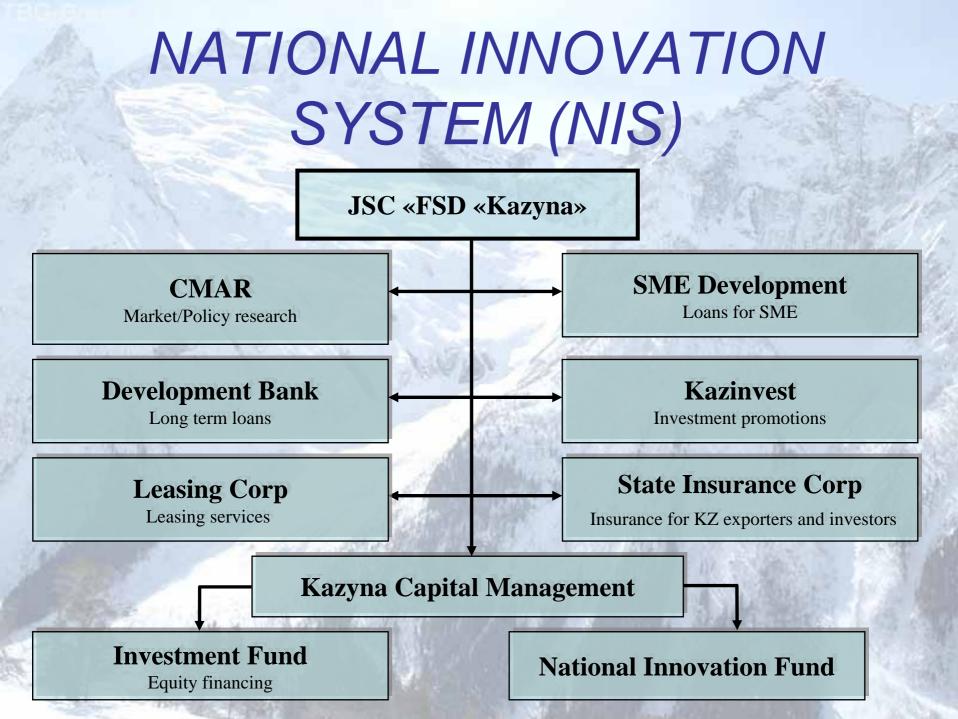
May 30, 2003 Established JSC «National Innovation Fund»

«...Established National Innovation Fund aims to intensify innovation activities in Kazakhstan...»

April 25, 2005

Approved a Program for Creation and Development of National Innovation System

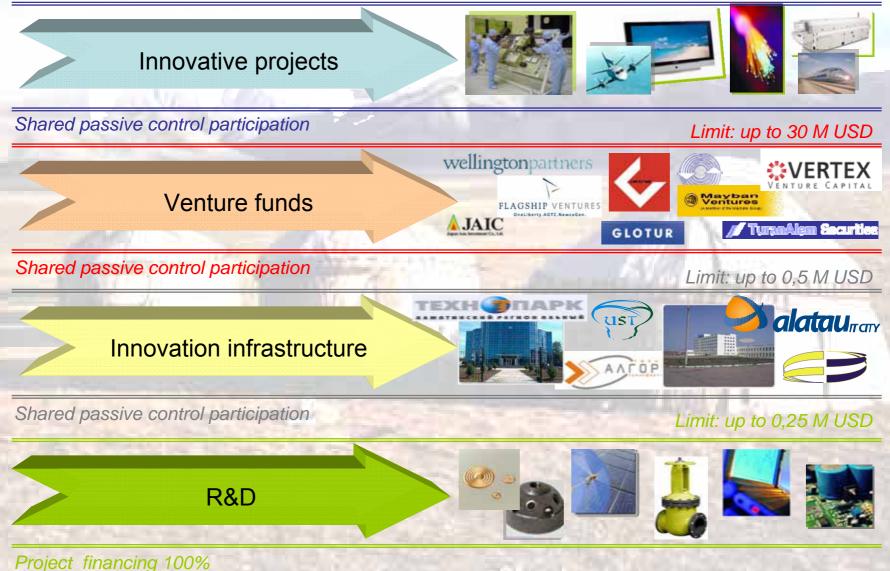
«...aims to create open innovation development system...»



NIS

Directions, Principles and limits of Investments

Limit: up to 5 M USD

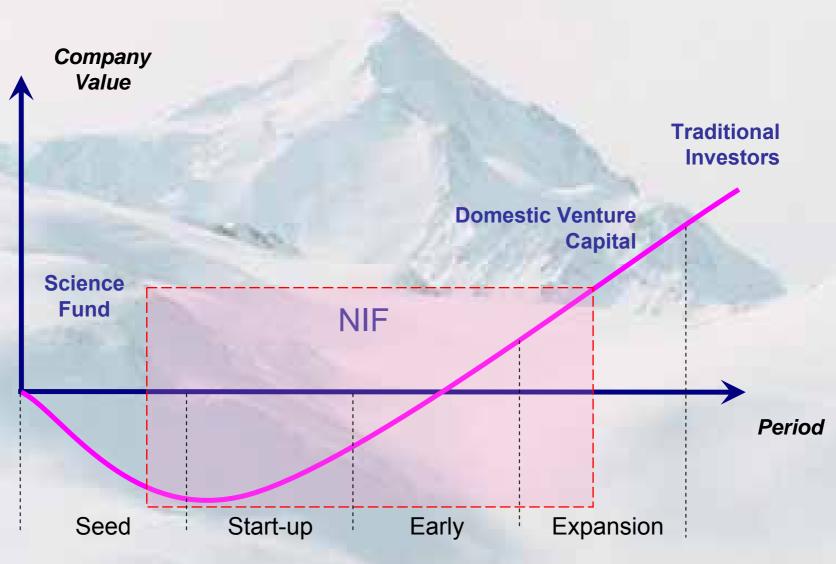


NIS

Investment Strategy of JSC «National Innovation Fund»

FINANCING INSTRUMENTS	 100% financing of R&D Investments in innovative projects up to 49%
FOCUS	 Focus on start-up and early stages private companies Focus on innovative technology transfer
GEOGRAPHY	Projects in Kazakhstan and abroad
MAJOR SECTORS	 ICT and Electronics BIO-PHARMA Oil & Gas Services Machinery construction New materials

NIS COORDINATION



PROBLEMS AND DIFFICULTIES

Innovation infrastructure

Scientific potential

- Gaps between science, education and business
- Lag between development of domestic science and world's achievements
- Low level of development healthcare and education
- Outdated technical basis in research institutes and labs

Imperfection of legislation base

- Lack of procedures on protection intellectual property
- Low usage of innovation infrastructure



- Low level of usage innovation technologies in business
- Lack of experience on implementing innovation technologies
- Raw oriented industries
- Import exceeds export
- Deficit qualified professionals

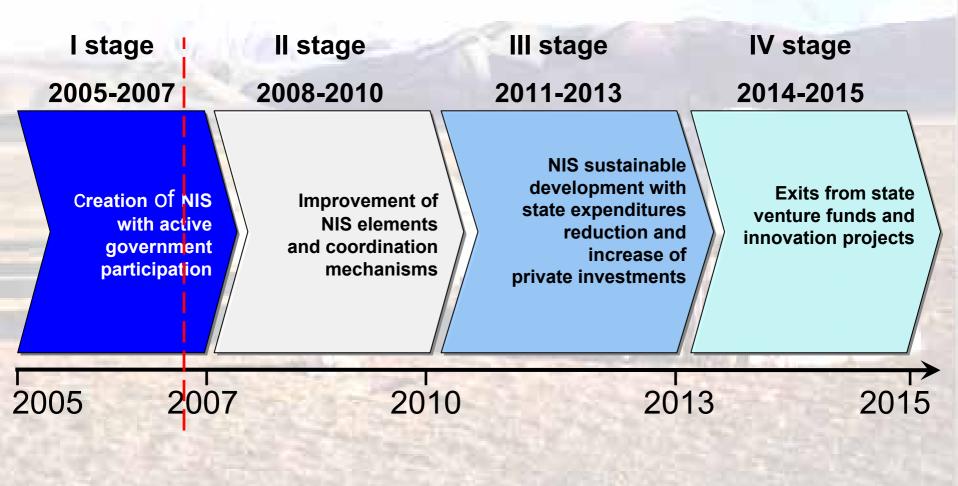
Innovation busines

Financing infrastructure

- Unpopularity of venture financing
- Alternative instruments of investments with similar level of incomes
- Lack of methods and criterions for estimation innovation ideas, knowhow, and intellectual properties

OUR SOLUTIONS

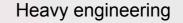
Realization of NIS Program : 2005-2015

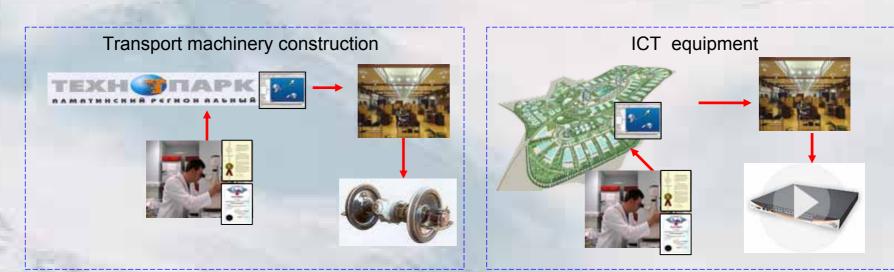


OUR SOLUTIONS

Manufacture needs organization/modernization

Oil & Gas machinery construction





OUR SOLUTIONS Technologies Transfer System

National Innovation Fund

Science Fund

Committee of science

Own Innovations

Industrial zones



ETTC-Industrial Parks





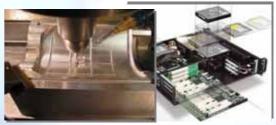
Mass Production

UTBI High Tech Innovations

Foreign Companies

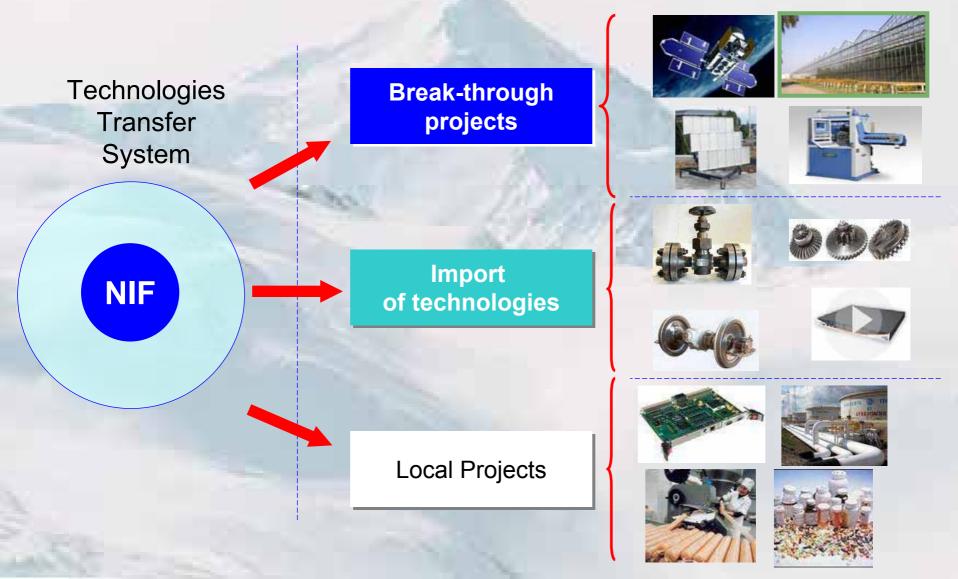
Technologies, equipments, products



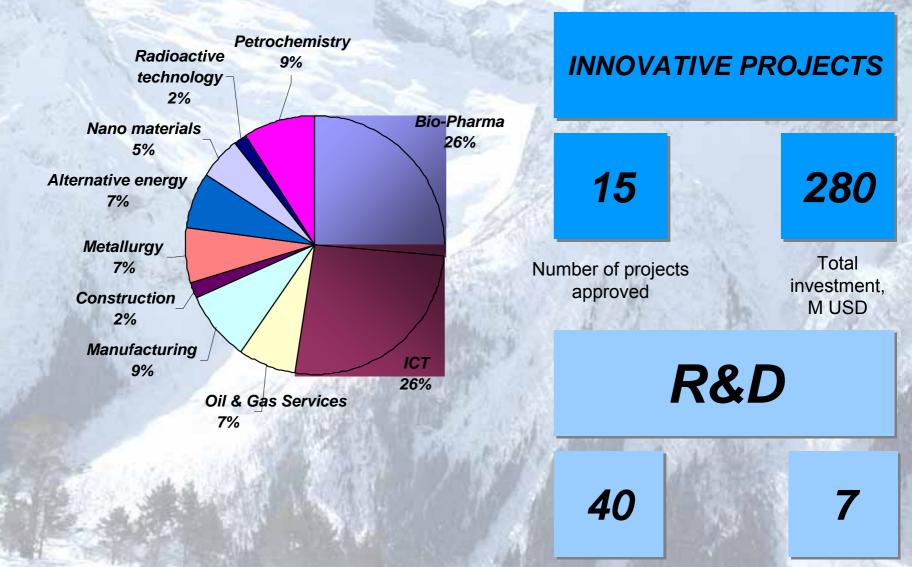


Output

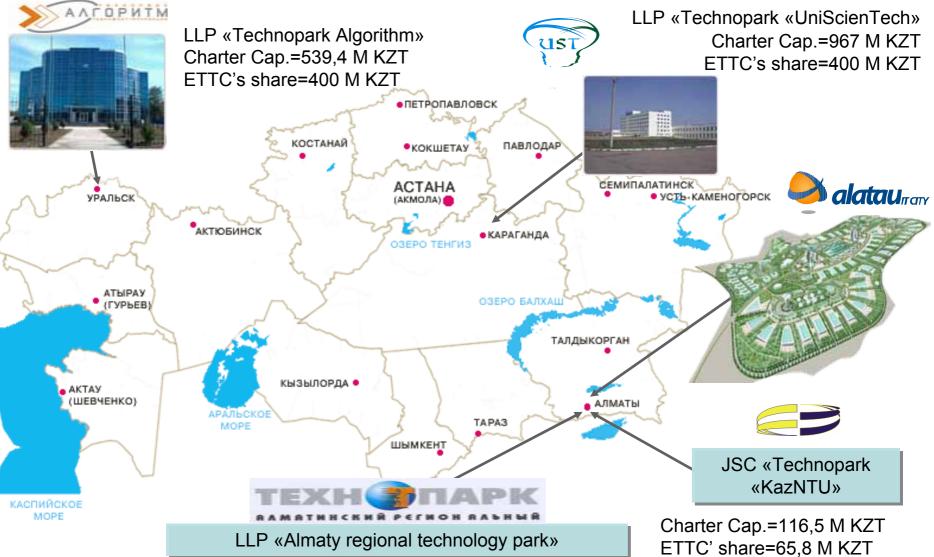
OUR SOLUTIONS Results



OUR SOLUTIONS Equity Financing



OUR SOLUTIONS Innovation Infrastructure



Charter Cap.=588,2 M KZT, ETTC' share=300 M KZT

OUR SOLUTIONS Investments in Venture Funds

Kazakhstan's venture funds (5)								
Name		Partner	Charter Cap.	Share of NIF				
VF Areket // TuranAle	m Securities	JSC «Turan Alem Securities»	\$30 M	\$10 M				
VF Advant		JSC «Lancaster Group Kazakhstan»	\$20 M	\$9.8 M				
VF Centras		JSC «Centras Capital Group»	\$20 M	\$9.8 M				
VF Almaty Venture Capital	АЛМАТЫ БИЭНЕС ГРУПП	JSC «Almaty Busines Group»	\$20 M	\$9.8 M				
VF Glotur Technology Fund	GLOTUR	JSC «Glotur»	\$20 M	\$9.8 M				
Overall capitalization:			\$110 M	\$49.2 M				
Foreign venture funds with NIF participation (5)								
Name		Partner	Charter Cap.	Share of NIF				
CASEF		SEAF, IFC, SECO, USAID (Central Asia)	\$12.8 M	\$2 M				
Wellington partners III wellin	igtonpartmens	Wellington Partners (Germany)	\$180 M	\$10 M				
Flagship ventures fund 2004	PLACENITY VENTURES	Flagship ventures (USA)	\$150 M	\$10 M				
Mayban-JAIC ASEAN Fund		Mayban, JAIC (Malaysia, Japan)	\$50 M	\$5 M				
Vertex III Fund		Vertex venture capital (Israel)	\$150 M	\$5 M				
Overall capitalization:			\$542.8 M	\$32 M				

OUR SOLUTIONS

Companies Acquisition

	Project's cost	Share of NIF		
	Safe ID (Germany)	Innovative solutions in safe identification and personalization area	24 M €	4,8 M €
Des Connes donnes Anglantes Terretoria donnes Anglantes Terretoria donnes donnes Anglantes Terretoria donnes donnes Anglantes Terretoria donnes d	Ethos Networks Ltd (Israel)	High-quality network equipment and software for corporate major computer networks	18 M USD	2 M USD
	Extricom (Israel)	Organization of Wireless LAN for data, voice (VoWLAN) and video	40 M USD	2 M USD

THANK YOU FOR YOUR ATTENTION!



ҰЛТТЫҚ ИННОВАЦИЯЛЫҚ ҚОРЫ

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