Innovative cluster for innovative region!

Samara Aerospace Innovative Territorial Cluster
Samara Region on the map of Russia

1000 km from the Moscow

53.600 sq km

more 3.000.000 inhabitants

location in the “North-South” and “West-East” transport corridors

High QOL

High innovations

Major transport knot
### Samara Aerospace Cluster

#### Space-rocket engineering industry
- Rocket Space Center “Progress” (“Soyuz” launch vehicles)
- Plastic, JSC (composite aircraft materials)

#### Engine technology industry
- Kuznetsov, JSC (aircraft engines)
- Metallist-Samara, JSC (flame tubes and can-type combustion chamber)
- Salute, JSC (space-rocket components)
- EPK Samara, JSC (aircraft bearings)

#### Aircraft engineering industry
- Aviacor Aviation plant, JSC (aircrafts)
- Aviaagregat, JSC (aircraft landing wheels)
- Agregat, JSC (aircraft fittings)
- Hydroautomatica, JSC (aircraft hydraulic components)
- FSUE Scientific research institute “Ecran” (aircraft avionics equipment)

#### Personnel trainings
- Samara State Aerospace University named after academician S. Korolyov (National Research University)
- Samara State Technical University
Samara Aerospace Cluster on the Russian aerospace clusters map

- Moscow: 9,100 emp.
- Uliyanovsk: 27,800 emp.
- Samara: 45,000 emp.
- Ulan-Ude: Aircrafts
- Yaroslavl: 15,000 emp.
- Perm: 26,000 emp.
- Khabarovsk: 23,800 emp.
- Irkutsk: 23,800 emp.
- Zheleznogorsk: 13,000 emp.

emp. = employees
JSC Rocket Space Center «Progress»

SOYUZ Launch Vehicle
Earth remote sensing satellites Resurs P, Resurs DK
Satellites of scientific purpose AIST, BION, FOTON
Upper Stages VOLGA, IKAR

OJSC «AVIAKOR - Aviation Plant»

Production of aircraft
Aircraft’s maintenance and repair

Total number of produced aircrafts – 22,500
Aerospace Cluster - complete cycle of production & testing of aerospace equipment

OJSC “KUZNETSOV”

Liquid fuel rocket engines
Aviation engines
Gas-turbine power plants
Engines for innovative transport
Major products of Rocket Space Center «Progress»

- Souz 2
- Souz ST
- Resurs P
- Bion-M
- Souz 2-1V
Major products of OJSC “KUZNETSOV”

Small lift launch vehicle
- Souz-2-1V
- NK 33A

Medium lift launch vehicle
- Taurus II
- Souz-2-3
- NK-33-1
- 14D22

Heavy lift launch vehicle
- Souz-3
- NK-33-II
- NK-33/AJ-26
- NK-43-M
Products of OJSC “KUZNETSOV” for innovative transport

NK-361 for gas turbine locomotive

gas turbine locomotive GT-1

- Power: 8,300 kW
- Speed: 100 km/h
- Between gas stations: 750 km
- 16,000 tons & 170 train cars
- Mass production: 08.2013
Aircraft sub-cluster

- An-140 turboprop aircraft
- An-140T transport configuration
- An-140C cargo configuration
- Tu-154 overhaul
- An-140, Tu-154, An-72/74 MRO
- IL-114 (perspective project)

Spare and component parts production
Aircraft sub-cluster / general aviation

Regional aircraft with a capacity of 8 to 21 passengers

amphibious aircraft

“Rysachok”
Major cluster project for cooperation

Earth remote sensing

- Earth remote sensing satellites: hyper-spectral dates
- Aircraft laboratories: air photography
- Physic-chemical laboratories: standards data base
- Small enterprises: processing & promotion of hyper-spectral information

- "Space level": Earth remote sensing satellites
- "Air level": Aircraft laboratories
- "Earth level": Physic-chemical laboratories and Small enterprises

- Processing hyper-spectral information system

- Resurs-P
- An-140-100 "Rysachok" IL-114

"Earth level"
Small spacecraft manufacturing and cooperation

Cooperation in design of small spacecraft

Expanding the possibilities of SOYUZ launch vehicle’s third stage for nanosatellites

AIST small spacecraft

Cluster nanosatellites laboratory
Network engineering center of Samara Aerospace cluster

- PLM/PDM-center
- Small spacecraft center
- Hyper spectral analysis laboratory
- Center of design of equipment
- Air laboratory for Earth remote sensing
- Center of innovative technologies on CNC machine
- Center of noncontact measurements
INTERNATIONAL SPACE COOPERATION

«Soyuz-Kourou» project (French Guiana)

Partnership with NASA in development & testing of rocket engines

Partnership with EADS in GALILEO satellite system development

Cooperation with leading European aerospace clusters in researching & developing

NASA

GALILEO

Skywin

QB50
National partnership of aerospace clusters

- Samara Innovative Aerospace Cluster
- Innovative Cluster of Gas-turbine and power engineering
- Innovative technologies cluster “Zheleznogorsk”
- Cluster “Ulianovsk Avia”
- Innovative cluster of rocket engines manufacturing “Technopolis “Novyi Zvezdnyi”

Number of actors: 189
Number of employees: 135,000
R&D: > 7 billion Rub.
EPAC – legal body

Registered on June 27, 2013 by the Russian Federation Ministry of Justice as an international non-profit partnership

EPAC is a cluster of Clusters

Declared on EPAC membership

Aerospace clusters of Russian regions:
Moscow region (Skolkovo), Samara region
Yaroslavl region, Ulyanovsk region, Novosibirsk region,
Krasnoyarsk Territory, Khabarovsk Territory

With CIS states clusters EPAC could gather more than 20 clusters

EU aerospace clusters:
Pôle Pégase, ASIS

Organizations and Associations:
International union of instrument & ITT engineers,
Vneshaviakosmos, Vector NG
Aerospace meeting of top-managers from around the world

> 1000 delegators from 30 countries

Business aerospace event
No.1 in Eastern Europe

The best place for B2B

Intercultural communications

Professional discussions

Congress is…
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