SAMARA REGION – THE PLACE FOR BIO-INNOVATION!
MINISTRY FOR ECONOMIC DEVELOPMENT, INVESTMENT AND TRADE OF SAMARA REGION, RUSSIAN FEDERATION
Bioproducts, «Healthy Foods»
Biochemistry, chemicals from renewable sources

Biopharmaceuticals, medicine of the future
Competences of Samara Region

Agricultural biotechnology
Bioremediation, bioenergy, industrial biotechnology
<table>
<thead>
<tr>
<th>TRENDS</th>
<th>FUTURE TECHNOLOGIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth of agricultural produce: crop breeding by 2 times within 5 years and cattle breeding by 3 times</td>
<td>Processing of agricultural production waste to feedstock, biogas, organic fertilizers</td>
</tr>
<tr>
<td>Depletion of soil</td>
<td>Humus production technologies, disposal of pesticides and other chemical substances in soil</td>
</tr>
<tr>
<td>Development of Samara and Togliatti agglomeration (largest in Russia), automobile, petrochemical and air &amp; space industry</td>
<td>Technologies regulating the life of microorganisms in the biosphere to protect the environment</td>
</tr>
<tr>
<td>Growth of automobile manufacture up to 1040 Ths units p.a., more stringent recycling requirements</td>
<td>Non-toxic biodegradable polymers</td>
</tr>
<tr>
<td>Energy consumption of traditional energy resources</td>
<td>Environmentally friendly energy generation</td>
</tr>
</tbody>
</table>
## POTENTIAL MARKETS*

### KEY SPHERES

<table>
<thead>
<tr>
<th>Sphere</th>
<th>2011, $ bln. (World)</th>
<th>2016, $ bln. (World)</th>
<th>Russia, % (2011(10))</th>
<th>Russia, % (2016)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bio-pharmaceuticals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- cell technologies</td>
<td>63</td>
<td>96,3</td>
<td>-</td>
<td>0,02</td>
</tr>
<tr>
<td>- gene technologies</td>
<td>2,2</td>
<td>9,6</td>
<td>-</td>
<td>0,1</td>
</tr>
<tr>
<td>- biocompatible materials</td>
<td>2,4</td>
<td>4,2</td>
<td>2</td>
<td>1,9</td>
</tr>
<tr>
<td>- biomarkers</td>
<td>14,9</td>
<td>33,3</td>
<td>0,6</td>
<td>0,4</td>
</tr>
<tr>
<td>Agro Biotechnologies</td>
<td>13.5</td>
<td>15.1</td>
<td>3.7</td>
<td>5.4</td>
</tr>
<tr>
<td>- veterinary drugs</td>
<td>4,8 (2010)</td>
<td>5,6</td>
<td>4,4</td>
<td>5,3</td>
</tr>
<tr>
<td>- feeding probiotics</td>
<td>0,6 (2010)</td>
<td>0,9</td>
<td>3,3</td>
<td>4,4</td>
</tr>
<tr>
<td>- amino acids</td>
<td>2,3 (2010)</td>
<td>2,8</td>
<td>5,8</td>
<td>9,5</td>
</tr>
</tbody>
</table>

Complex program of biotechnology development in Russia up to 2020. Estimated financing: 33 bln. dollars

* Source: abercade.ru
### Key Spheres

<table>
<thead>
<tr>
<th>Sphere</th>
<th>2011, $ bln. (World)</th>
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<th>Russia,% (2011(10))</th>
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<tbody>
<tr>
<td>Industrial biotechnologies</td>
<td>9.8</td>
<td>13</td>
<td>2.1</td>
<td>2.6</td>
</tr>
<tr>
<td>Bio-chemistry</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bio-energy development</td>
<td>70</td>
<td>120</td>
<td>-</td>
<td>2.8</td>
</tr>
</tbody>
</table>

Complex program of biotechnology development in Russia up to 2020. Estimated financing: 33 bln. dollars.
<table>
<thead>
<tr>
<th>Science and Education</th>
<th>Innovative centers, institutes and laboratories</th>
<th>Products</th>
<th>Customers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Samara State Medical University</td>
<td>Institute of Experimental Medicine and Biotechnology</td>
<td>Over 100 LIOPLAST implants</td>
<td>Medical institutions in 40+ cities of Russia and foreign clinics</td>
</tr>
<tr>
<td>Samara State Technical University</td>
<td>Food Production faculty</td>
<td>Beer with increased content of physiologically active substances</td>
<td>Public catering</td>
</tr>
<tr>
<td>Samara State University</td>
<td>Center for Biotechnology and Bioengineering</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Togliatti State University</td>
<td>Institute of Chemistry and Environmental Engineering</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Samara State Air and Space University</td>
<td>“Biotech and radioelectronic systems” Scientific research laboratory</td>
<td>Pulse/oximeters, rhythm/heart rate monitor, pacemaker, diagnostic tools</td>
<td>Medical institutions, pharmacies</td>
</tr>
<tr>
<td>Academy of Agriculture</td>
<td>Faculty of biotechnology and veterinary medicine</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Samara Region: Summary

- Territory: 53,600 sq km
- Population: 3,171,400
- Urban population: 80%
- Mean age of population: 39.9 years
- GRP: 27.8 bln $

- 760 thousand hectares of forest,
- Rich water resources with 2 largest rivers: Volga and Samara
- 37 thousand square kilometers of agricultural production
- We do Differ for the Better!
- Samara Region is an excellent site for BIO-innovations

1,500 square km of Samara Region is urbanized
49,500 square km is the resource base for biotechnology
**SAFE INVESTMENTS AND ADMINISTRATIVE SUPPORT TO INVESTORS IN SAMARA REGION**

- **Progressive legislation**
- ** Transparent status of land plots**
- ** Administrative support to investors**

**SPECIAL CONDITIONS IN THE FREE ECONOMIC ZONE**

<table>
<thead>
<tr>
<th><strong>Savings</strong></th>
<th><strong>Free customs regime</strong></th>
<th><strong>Zero tax rate</strong></th>
<th><strong>“Social” tax 14% up to 2017</strong></th>
<th><strong>2% income tax</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Savings on infrastructure connection (up to 30%)</td>
<td></td>
<td>Zero tax rate (property, transport, land)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SPECIAL CONDITIONS FOR MONOINDUSTRY TOWNS**

- We pay for each created job
- We exempt from property tax up to 7 years
- We lower company income tax for up to 5 years

**“ZHIGULI VALLEY” TECHNOPARK**

- Regional Tax Benefits
- Modern Infrastructure and Equipment
INNOVATIVE LIFT FOR
BIOTECHNOLOGY
COMPANIES

Necessity of innovation project | Research and scientific work | Pre-marketing R&D | Start of production | Early growth | Expansion of production

Innovation project lifecycle stages

Guarantee Foundation

Bank association

Leasing company

Venture Foundation

Innovation Foundation

Innovative business incubators

Technoparks

CIRIKI

RCITT

ICASO

SNC RAN R&D database

Regional center for development of entrepreneurship

RCITT

*CIRIKI Center for Innovation Development and Cluster Initiatives
*RCITTRegional center for innovations and technology transfer
*SNC RAN Samara Scientific Center of the Russian Academy of Sciences
*ICASO Information and Consulting Agency of Samara Region
*SamRNOC Samara Regional Scientific Educational Complex
UNIVERSITIES:
Academic buildings
R&D laboratories
Residential complex
for students and teachers

INNOVATIONS:
Technopark
Premises for Shared Service Research Center
Offices and laboratories
Innovative business-incubator

SERVICE COMPANIES:
Innovative technological centers
Office premises

EXHIBITION:
Exhibition center with congress-hall, hotels & business center

SOCIAL INFRASTRUCTURE:
Shopping center
Sports complex
(including facilities for FIFA 2018)
Entertainment centers
Recreation zones
STAFF POTENTIAL OFFERED BY SAMARA REGION FOR BIOTECHNOLOGY SPHERE

Samara State Medical University
9 specializations  71 department

Samara State University
3 specializations  5 department

Togliatti State University
4 specializations  1 department

Volga State Academy of Social Sciences and Humanities
4 specializations  1 department

Samara State Technical University
6 specializations  6 department

Samara State Academy of Agriculture
5 specializations  5 department

Samara State Architecture and Construction University
1 specialization  2 department

Samara State Air and Space University
3 specializations  2 department
## KEY SECTORS FOR COOPERATION:

**WE ARE READY TO WORK WITH INVESTORS IN ALL SECTORS OF BIOTECHNOLOGY!**

### BIOMEDICINE
- Cell biotechnology, Personalized medicine, Modern diagnostic tools, Biocompatible materials, BIO IT

### INDUSTRIAL BIOTECHNOLOGY
- Biodegradable polymers, Production of industrial ferments, Production of amine and lactic acids, Production of biologically active food supplements

### AGRICULTURAL BIOTECHNOLOGY
- Processing of agricultural production wastes (biogas, organic fertilizers), deep processing of plant cultures, Biopreparations for cattle farming

### BIOENERGY
- Production of ‘clean’ energy, Production of biofuels, Power-generating waste recycling

### FOOD BIOTECHNOLOGY
- Ferment preparations, Probiotics, Prebiotics, Synbiotics, Functional food products, deep processing of foodstuffs

### FOREST AND ENVIRONMENT BIOTECHNOLOGY
- Regulation of life of microorganisms in the environment (bioremediation), biological tools of forest protection, environmentally friendly housing

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**THE SHARE OF RUSSIA IN THE INTERNATIONAL MARKET OF BIOTECHNOLOGIES IS 0.1%**
WELCOME TO SAMARA REGION!

Ministry for Economic Development, Investment and Trade of Samara Region