

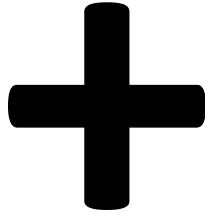


Technocampus 2.0

Territory Integrated Development Project. Realization Concept

June 7, 2016

PART 1



- Demography
- Constant Development
- Strong industrial heritage
- Strong international industry 2.0
- Industrial parks with infrastructure
- Strong IT cluster
- Ecosystem at Nanocenter
- Passionate individuals
- Strong Governor and team



- Dispersed IT companies
- Weak academia for applied research
- Weak international ties in R&D
- Ecosystem at embryo stage
- Weak networking
- Bad state of soviet industry
- Low performance
- No nucleus
- Slow in progress – too bureaucratic

Demography



Region Area
37, 200 sq. km



Region population
1, 300, 000



Ulyanovsk population
637, 900



Working-age population
405, 000

Ranking position of the region



1st place
in production
of aircrafts for
civil aviation



2nd place
in the regional
production output



5th place
in car manufacturing



4 production areas
in the region



Doing Business

No 1 in Doing Business in Russia Ranking



Институт развития
информационного общества



Information Society Development Institute

No 1 in the rating Openness of the Regional
Government to the public

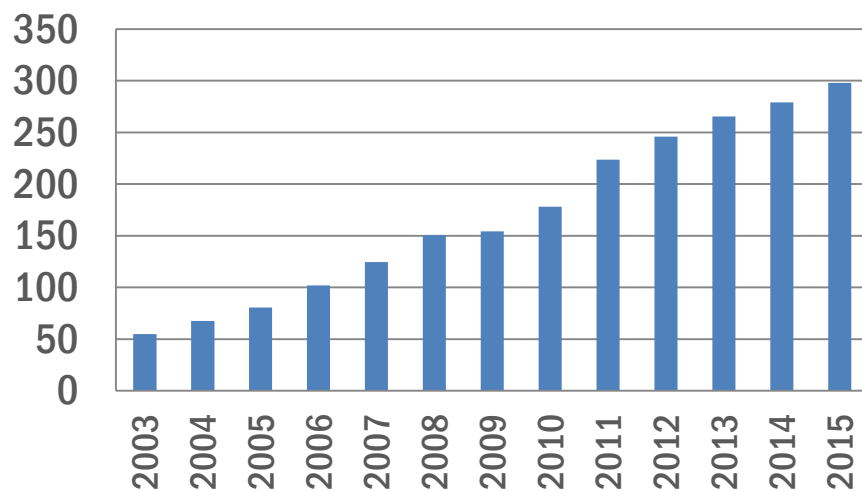


No 2 in National Rating of investment climate
in Russian regions

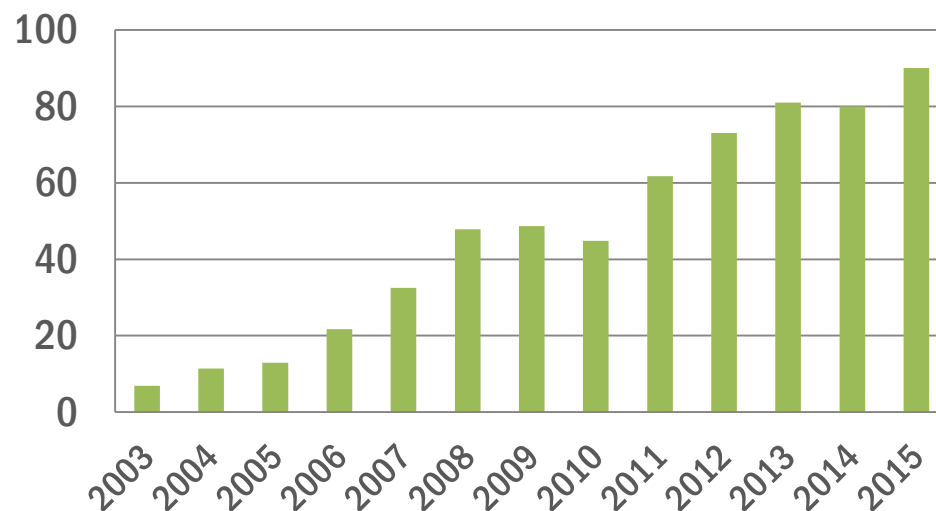


No 3 in KPMG and RSPP research

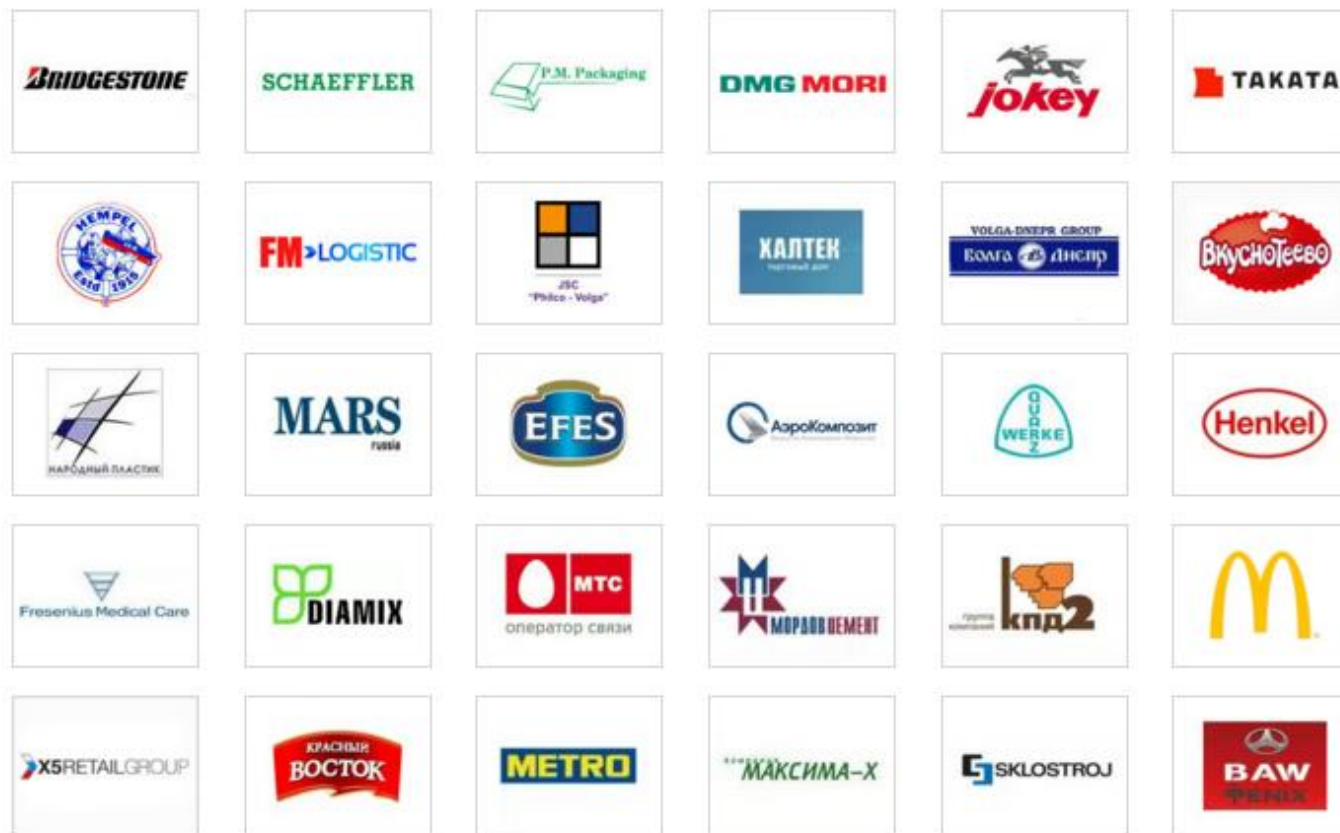
GRP of the Ulyanovsk Region by
year, bn. rub.



Investment amount, bn. rub.



Investment attraction



- 68 new companies over the last 5 years
- GRP Growth by 5 times over the last 13 years (60 bn. in 2013 – 298 bn. in 2015)
- GRP growth up to 2030 – 450 bn. rub



Ulyanovsk State University

Student recruitment
13 107 (2015)



Ulyanovsk State Technical University

Student recruitment
8 606 (2015)



Ulyanovsk State Pedagogical University

Student recruitment
6 675 (2015)



Ulyanovsk State Agricultural Academy

Student recruitment
8 606 (2015)



Ulyanovsk higher aviation school of civil aviation

Student recruitment
6 466 (2015)



Modern Humanitarian Academy (Ulyanovsk branch)



Moscow Finance and Law Academy (Ulyanovsk branch)

Student recruitment
200 (2015)

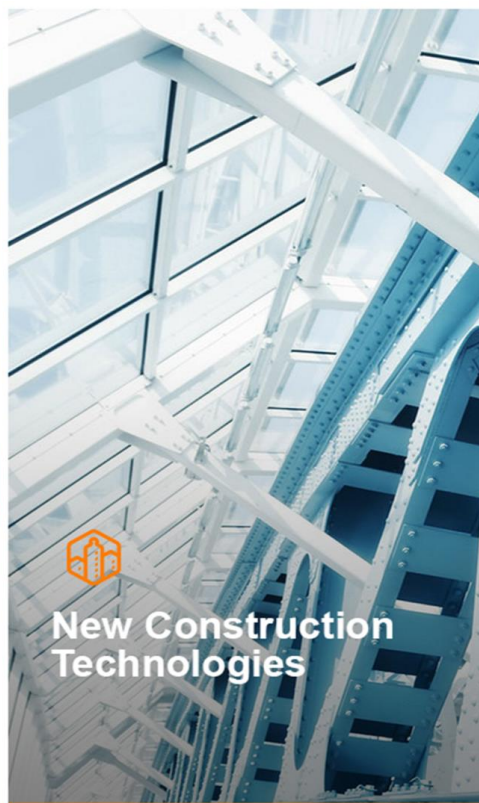


The Ulyanovsk branch of the Russian Academy of national economy and state service under the President of the Russian Federation

Student recruitment
1 397 (2015)

- The total number of full – time studying students about 45 thousand people
- Including distance learning, faculty, graduate students, doctoral students and staff – about 70 thousand people
- Ulyanovsk State Technological University – the leader on number of patents in Russia
- The region concentrates the critical mass in number of people involved in higher education
- Transformation of quantity into quality, both in terms of quality of education, and the valorization and commercialization of technologies and intellectual property

It is necessary to significantly raise the level of the regional universities and include them into international cooperation



Knowledge economy and technological entrepreneurship economy

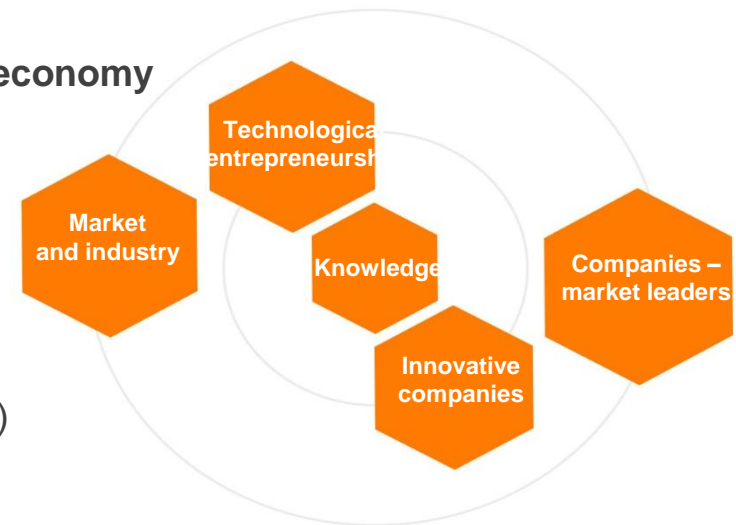
The risk of closures in the industry of automotive components

A significant change in the production aircraft

market structure

The emergence of new markets (e-health, «Internet of things»)

- Significant technological shift in the production of land transport (electric vehicles, batteries, infrastructure, autonomy)
- Distributed system of power generation and smart networks instead of centralized generation
- The share of innovative companies in the regional GRP by 2030 – 20%





Leuven (Belgium)

- Nucleus – KU Leuven and IMEC
- The first region in continental Europe on technologies commercialization
- **17 years**



Cambridge (England)

- Nucleus – Cambridge
- The first region in Europe on technologies commercialization
- **53 years**



Doha (Qatar)

- Nucleus – 5 invited universities
- The fastest – growing region in technologies in MENA region
- **11 years**

Other examples:

- San Jose, Palo Alto – Silicon Valley, USA
- Rocky Mountain – Utah, USA
- Haifa – Israel
- Australia

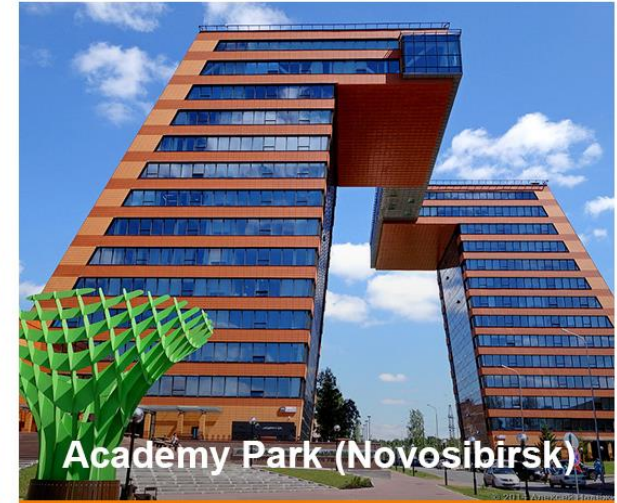
- **HIGH COST OF R&D** – companies spend from 2.5 to 10% for R&D
- **COOPERATION** – academy, applied developers, small companies, market leaders interact with each other
- **SMALL TOWNS** – No success in megacities
- **NO OTHER ACTIVITY** – Regions which do not have any other basic activity in their background (or it is dead).
- **EFFICIENCY** – Labor efficiency 10 + times higher than in other conventional industries; 5+ higher than in grow points
- **GROWTH** – New market leaders constantly appear in the territory, new start ups are being created – geometric growth
- **SHARE IN GRP** – Significant share in GRP from 20% to 80% as a result of technologies introduction in the world
- **INDIRECT JOBS** – each high value added job creates 3.5 – 10 indirect jobs
- **KNOWLEDGE NUCLEUS** – university or engineering research center



- Modularity
- Close location
- Local approach
(ecosystem on the regional level)
- Low cost
- Integration into world cooperation



- Close to the Industry
- Focus not on IT
- Close to the city
- Logistics
- Modularity



- Integration with industry 2.0
- Central part of Russia
- Short time flying to Moscow and Europe
- Integration into world cooperation
- Private investments

Closest analogs:

- **Technopark of Novosibirsk Akademgorodok**
- **High Technology Park, Minsk, Belorussia**



	Ulyanovsk State University		Ulyanovsk State Technical University		Ulyanovsk State Pedagogical University		Ulyanovsk State Agricultural Academy		Ulyanovsk Higher School of Civil Aviation		Total	
	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015
Students	10523	9490	6873	6562	6549	7206	6016	5167	3389	3236	33350	31661
Average Exam Score	62,3	63,7	57,6	59,6	62,4	66,3	49,2	54,2	69,2	73,8		
MS and PHD studets	285	239	416	623	359	877	140	174	21	19	1221	1932
Faculties	752	681	417	410	381	376	277	240	226	223	2053	1930
inlcuding Professors	104	106	48	48	57	54	42	41	5	8	256	257
Campus Area, ths sq.m.	190	190	78	78	63,6	63,6	45	45	36,8	36,8	413,4	413,4
WoS	18/451	21/485	71	145	23	52	0	0	-	-		
Scopus	20/408	22/500	99	217	67	167	2	37	-	-		
IP	163	182	175	221	27	30	118	89	0	0	483	522



- Joint University Incubator
- Interregional university incubator
- Youth Innovative Creativity Center
- Technical college



Technion
Israel Institute of Technology

RWTH AACHEN
UNIVERSITY

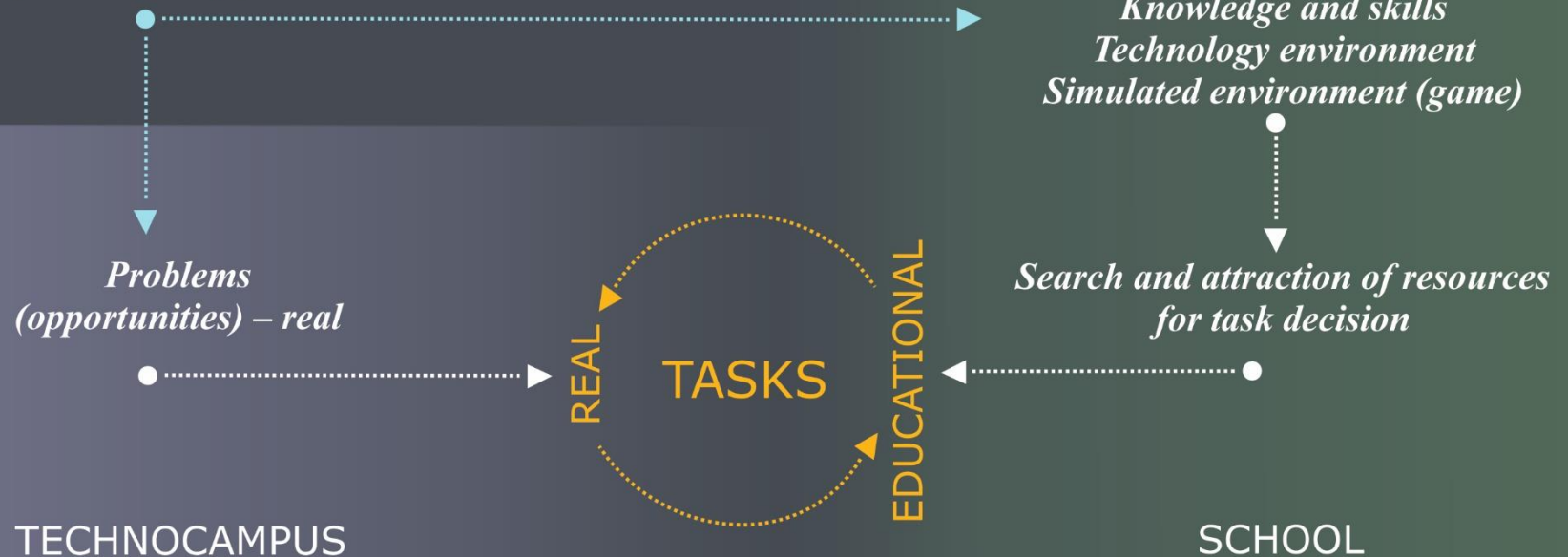


Hypothesis on joint projects:

- AFV competency center – Future Mobility (IT + Composite Materials + Avionics + Aircraft Building + Maths),
- Predictive medical diagnostics competency center – E-health (IT + sensors + medical study + genomics + bio informatics).

TECHNOLOGY MODEL FOR REALIZATION OF THE KEY PROJECT IDEA

The globe as
the space for opportunities



Incubator for hardware startups from San-Francisco

- Design consulting
- Infrastructure & equipment
- Industrial design, interfaces, prototyping
- Co-Working & Community



Radicand specializes in rapid prototyping radical ideas - design, build, and test as quickly as possible

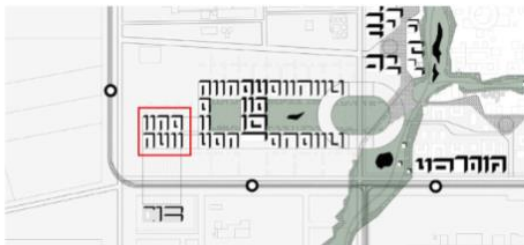
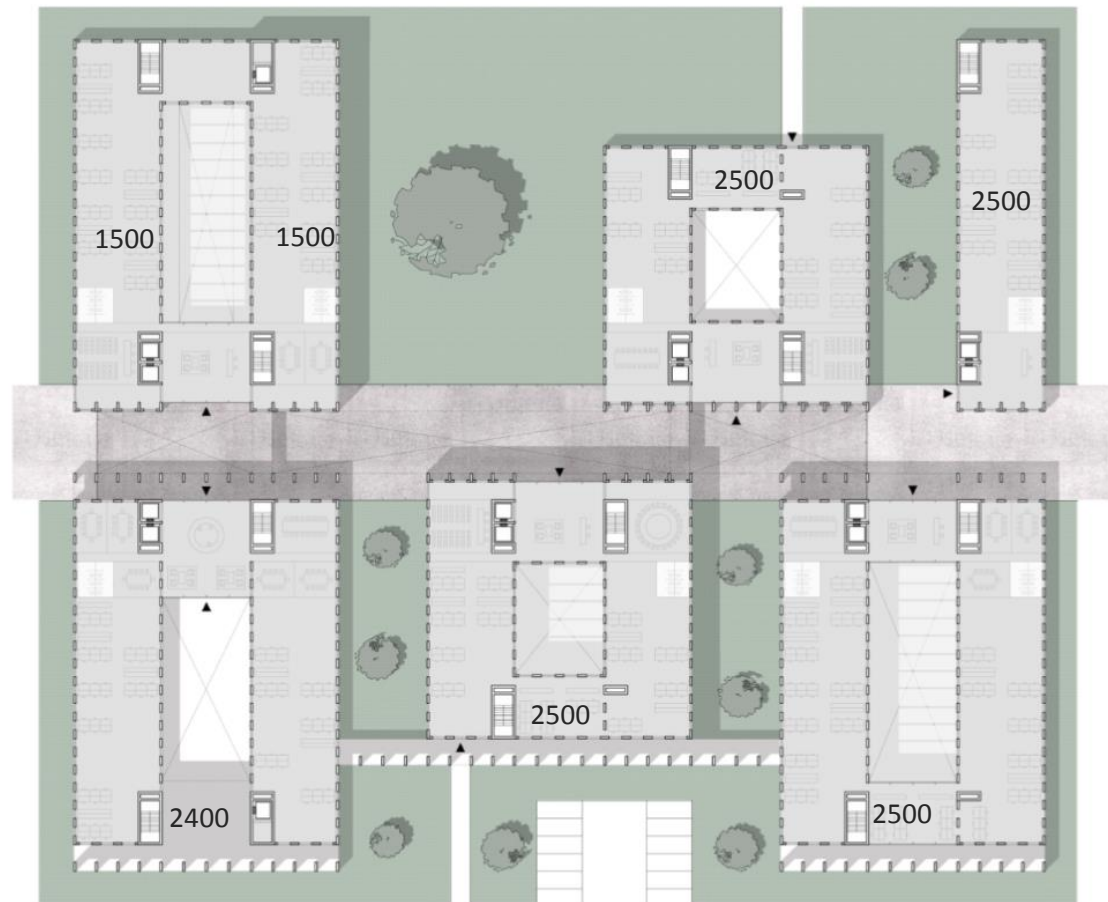




Small-batch production

Special offices

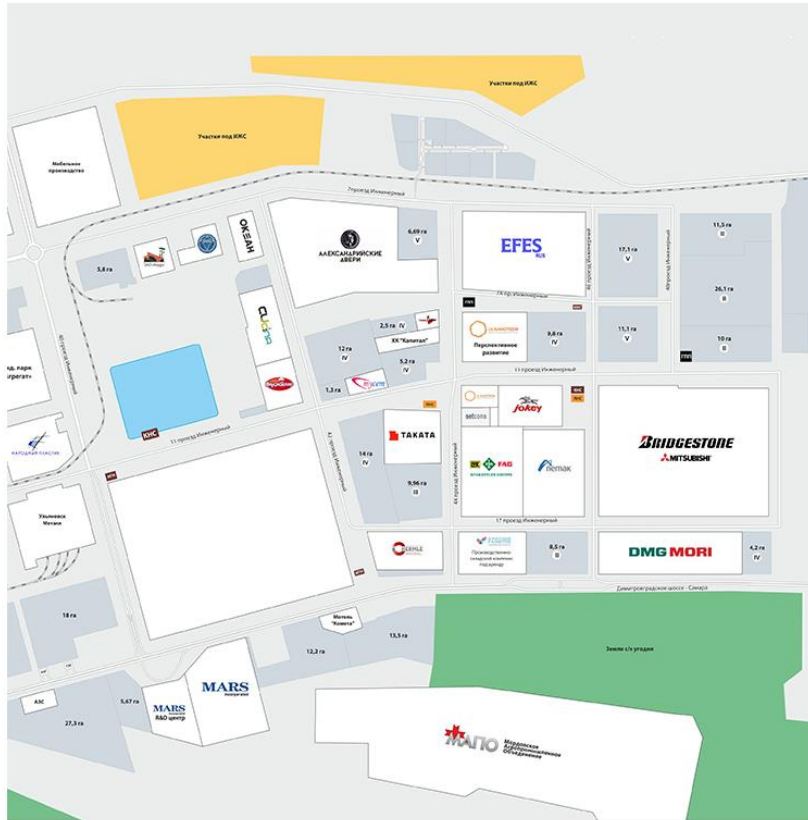
Labs & Offices

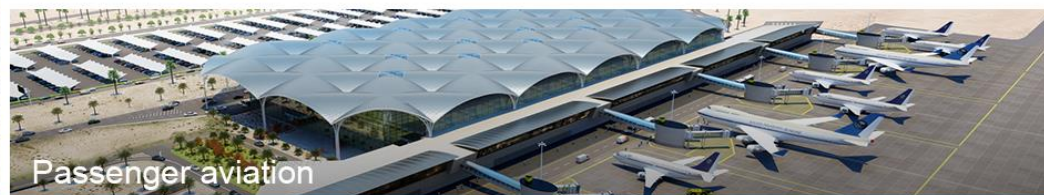
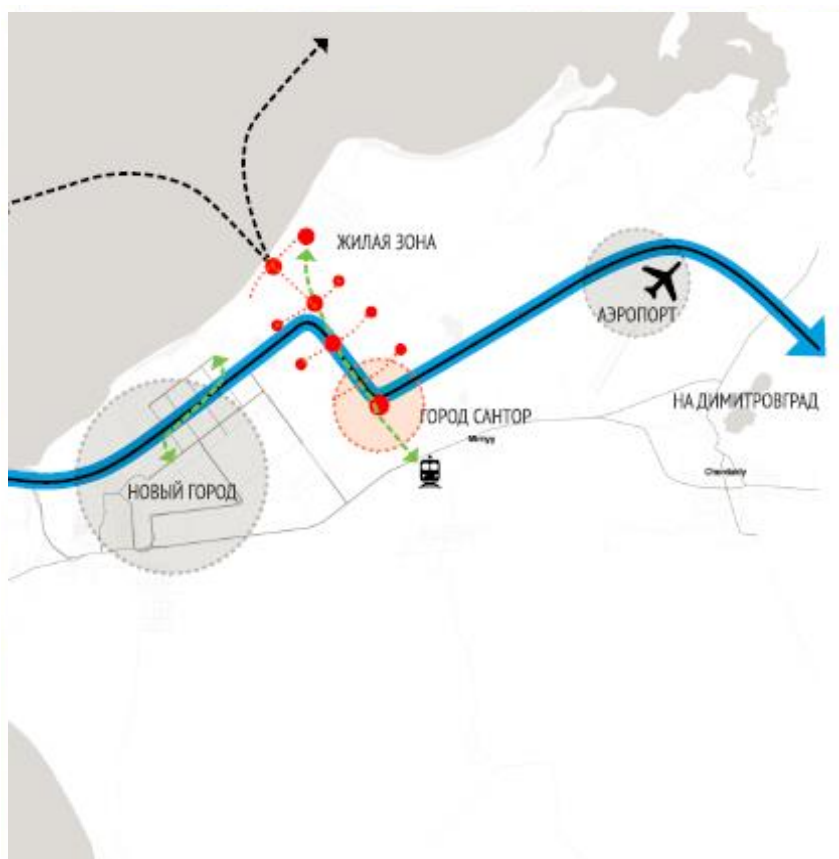


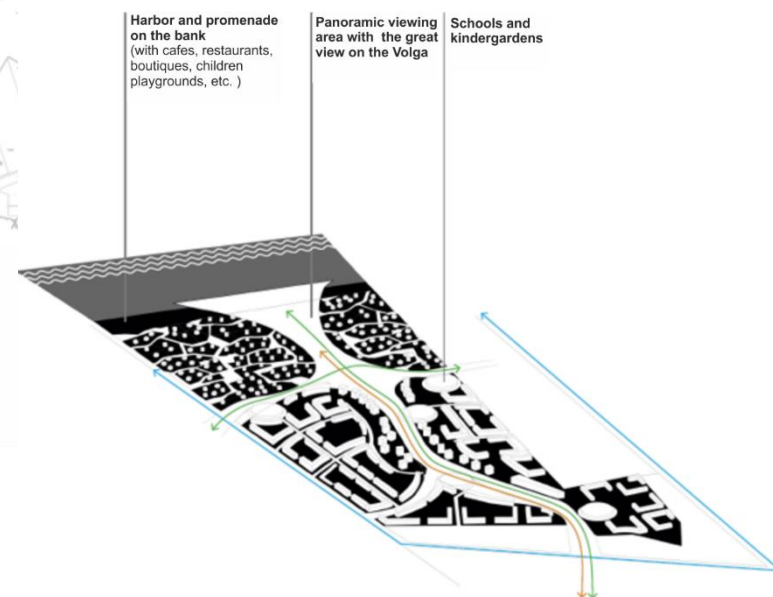
IT

Social Infrastructure

Education









Low-rise building area



Individual projects



Areas for construction



Social infrastructure

CONVENTIONAL ECONOMY:

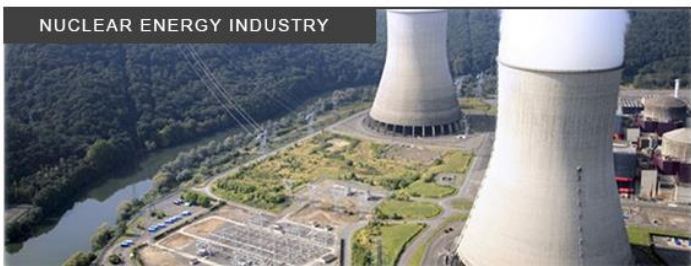
AVIATION



AUTOMOTIVE PRODUCTION



NUCLEAR ENERGY INDUSTRY



TECHNOLOGICAL ENTREPRENEURSHIP ECONOMY:

RENEWABLE ENERGY



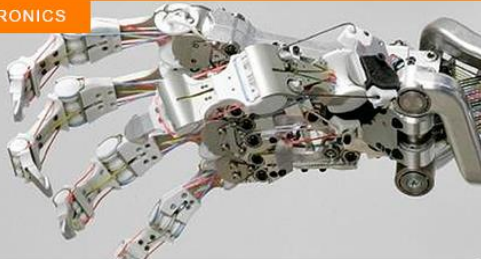
ELECTRONIC HEALTH



TRANSPORT OF THE FUTURE



MECHATRONICS



HUMAN GENOME



BIODEGRADABLE MATERIALS



NEW PRODUCTION TECHNOLOGIES



DIAGNOSTIC SYSTEMS



COMPOSITE MATERIALS



ENERGY STORAGE



BUILT - IN ELECTRONICS



FUNCTIONAL MATERIAL



1. Core team – part timers
2. Preliminary master-plan concept
3. Task defined for the first stage
4. International cooperation – initial stage (Israel, Belgium, Denmark)
5. Dialogue with universities – work group
6. Preliminary school concept
7. Networking company agreed

PART 2

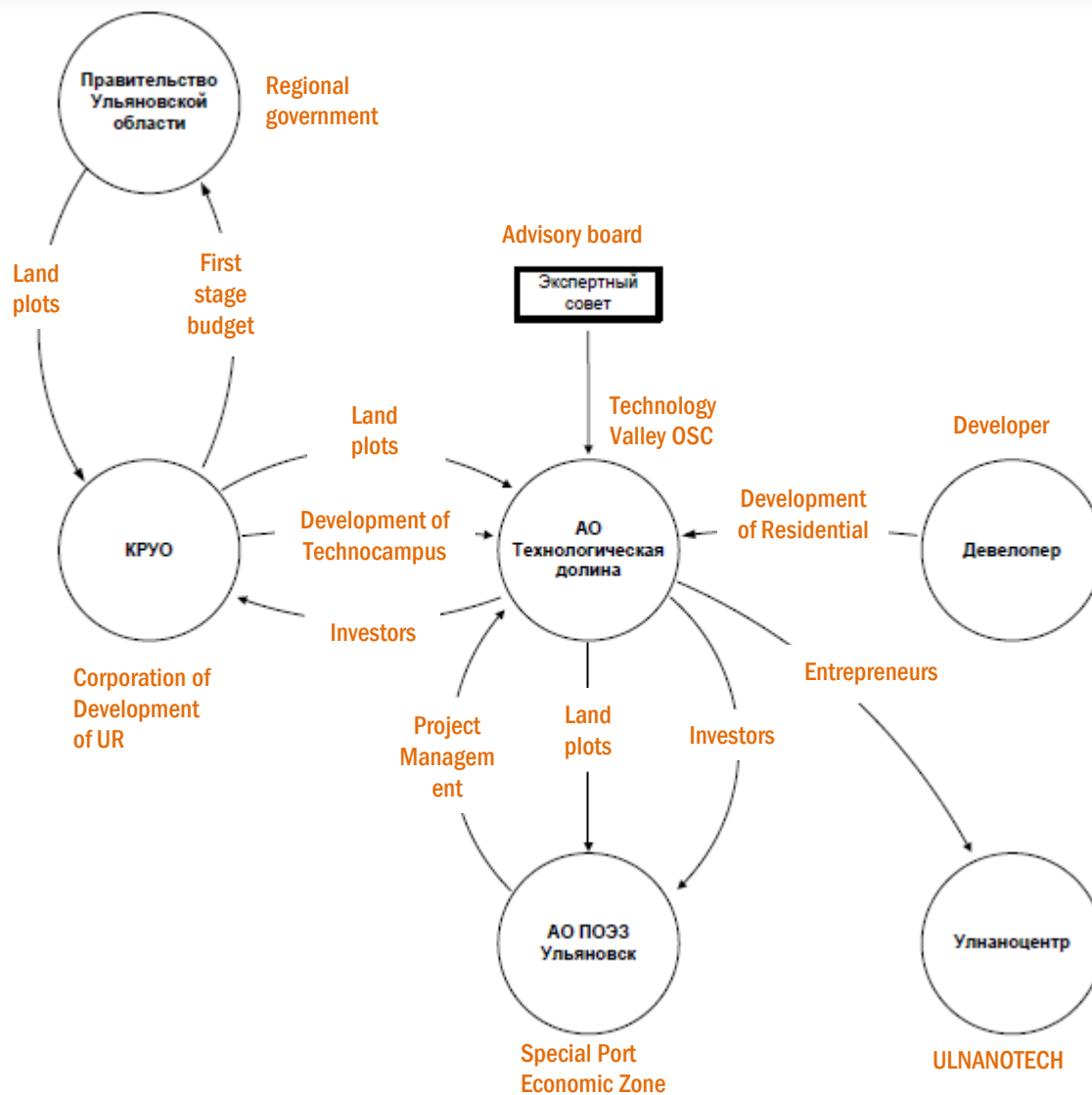
- Personal income tax subsidized (0%)
- Company profit tax reduction (2%)
- Import VAT (0%)
- Rental rate – 0 (?)
- Residential real estate price below market (-15-20%)
- Subsidized personal loans for family members (small business launch)
- Subsidized personal real estate mortgage loans (personal use for employees)
- Subsidized business development loans (SMB)

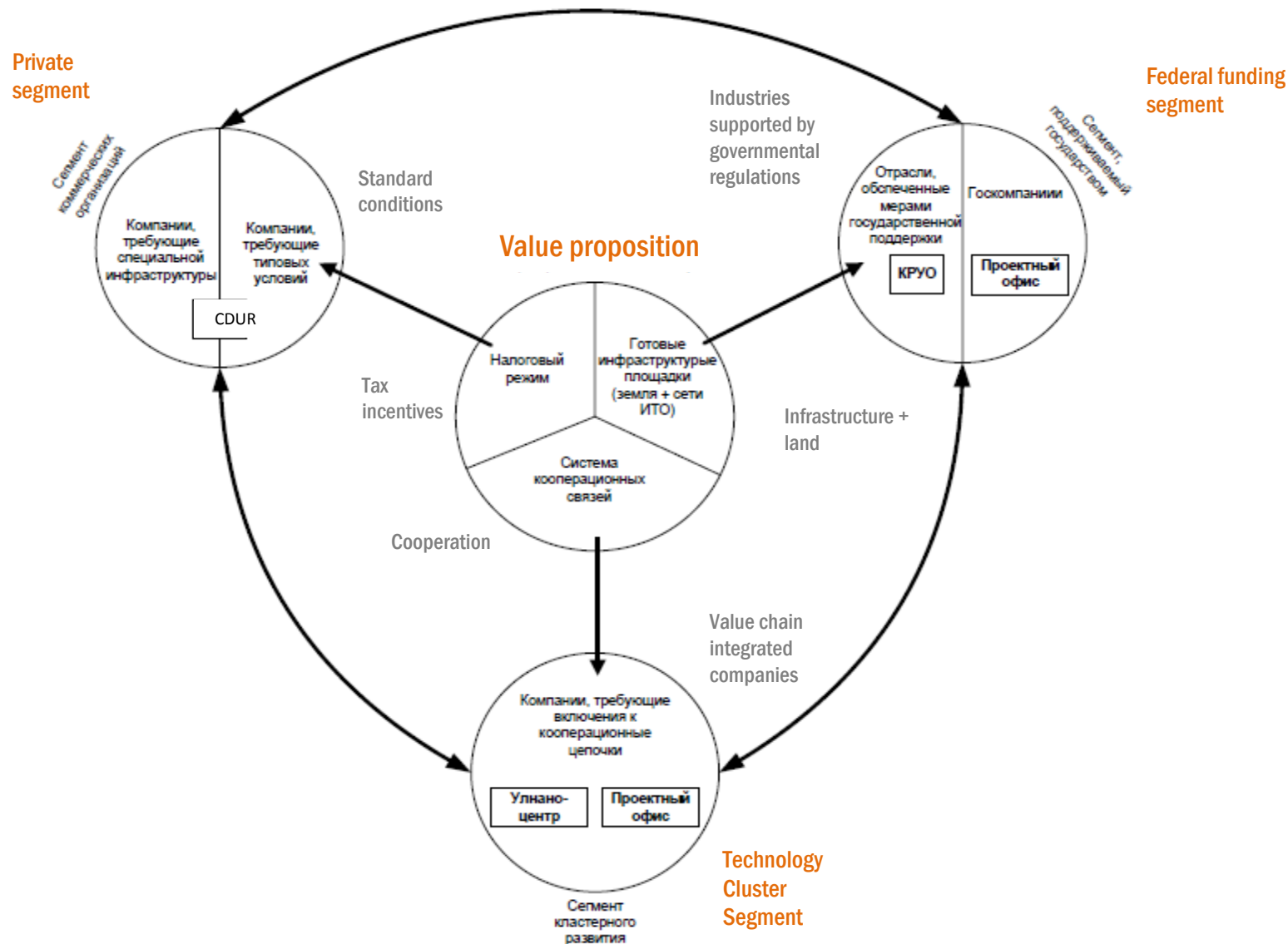
- Get tax incentive only in exchange to R&D spending
- Obligatory medical insurance for employees
- Obligatory paid education for employees' family members (pre-school, school, higher education loan)
- Providing living space for expats (rent or loan coverage)
- Feed and fitness coverage
- Technology driven companies
- 0,5% of revenue instead of rental rate – incentive for newcomers

PART 3

1. The only and the key location for technology driven companies in the region
2. Strong university on campus
3. Full connection with surrounding industry
4. Full connection with IT
5. Strong international cooperation both at personal and business levels
6. R&D expenditures 5% of revenues – on average
7. 5000 high value added direct jobs
8. Full education cycle – pre-school-school-high-school-technical school-university-phd-study in house
9. Developed entrepreneurial ecosystem
10. 1-2 starring infrastructural projects (i.e. Solliance)

1. Number of IT + material based projects launched
2. Number of projects with surrounding industry
3. Number of projects with international counterparts
4. Whole IT cluster on campus
5. New growing university
6. Pre-school and school launched
7. Garage for startups infrastructure in a few industries
8. 1000+ high value added jobs
9. Ecosystem at Technocampus and residential area
10. Significantly better flight logistics





1. Complete master-plan design for phase #1
2. Launch networking company
3. Get agreed (binding) with first partners (residents)
4. Complete school design and educational program
5. Sign strategic agreements with cooperative territories (Israel, Belgium)
6. Launch university MS international network program
7. Finalize incentives
8. Complete construction design for Technocampus phase #1
9. Complete construction design for engineering grids in residential area
10. Start construction works both in Techocampus and residential blocks
11. Finalize marketing product (living offerings and office + infrastructure offerings)

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