

**DIGITAL AND ENGINEERING  
COMPETENCES OF  
«INTERTECHELECTRO», RUSSIA**

**AREAS OF POSSIBLE PARTNERSHIP  
WITH KOREAN COMPANIES**

Moscow, Seoul, October 2019

# 4 MAIN DIRECTIONS OF BUSINESS INTERTECHELECTRO GROUP OF COMPANIES



## Description



Power Industry  
(Talakhovskaya TPP)

Established in 2001 and is currently among the leaders of the power engineering market in Russia. The main area of activity is the implementation of investment projects in the energy and industry sector, based on EPC / EPCM contracts



Digitalization

Since 2016, acting as a developer of services in the field of the Internet of Things, specializing in the digitalization of electric power facilities, urban infrastructure and utilities, and the field of waste management. Offers unique digital video analytics and machine vision solutions



Production facility  
(Kurgan Industrial Park)

Has its own production site - Kurgan Plant of Integrated Technologies (City of Kurgan), which produces generating equipment, modular boiler rooms, electrical units, modular compressor and other equipment



Waste treatment  
(Tyumen Waste Sorting Facility)

Since 2014, involved in the design and construction of facilities for the waste management industry, is a provider of a full range of services and modern technological solutions, including the collection, transportation, sorting, processing and disposal of waste

## Achievements

Winner of the National Award for Engineering and Project Management in the nomination "The most promising EPC / EPCM-company", awarded the highest international award "European Standard" for high quality of services

Offers unique digital solutions for video analytics and machine vision

Engaged in scientific and inventive activities, has its own technological **developments**

# THE GROUP INCLUDES THE COMPANIES TO PROVIDE THE COMPLETE PROJECT CYCLE



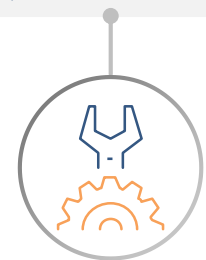
**Intertechelectro**  
General Contractor, Moscow



Intertechelectro  
Project  
Moscow, branch office  
in Yekaterinburg



Intertechelectro  
company  
Moscow



Kurgan plant of  
integrated Solutions  
Kurgan



ITE- Turbomontazh  
Tyumen



SibTechEnerg  
Novosibirsk



Center 2M  
Moscow

Teploelectroproject  
Tashkent



**30** licenses

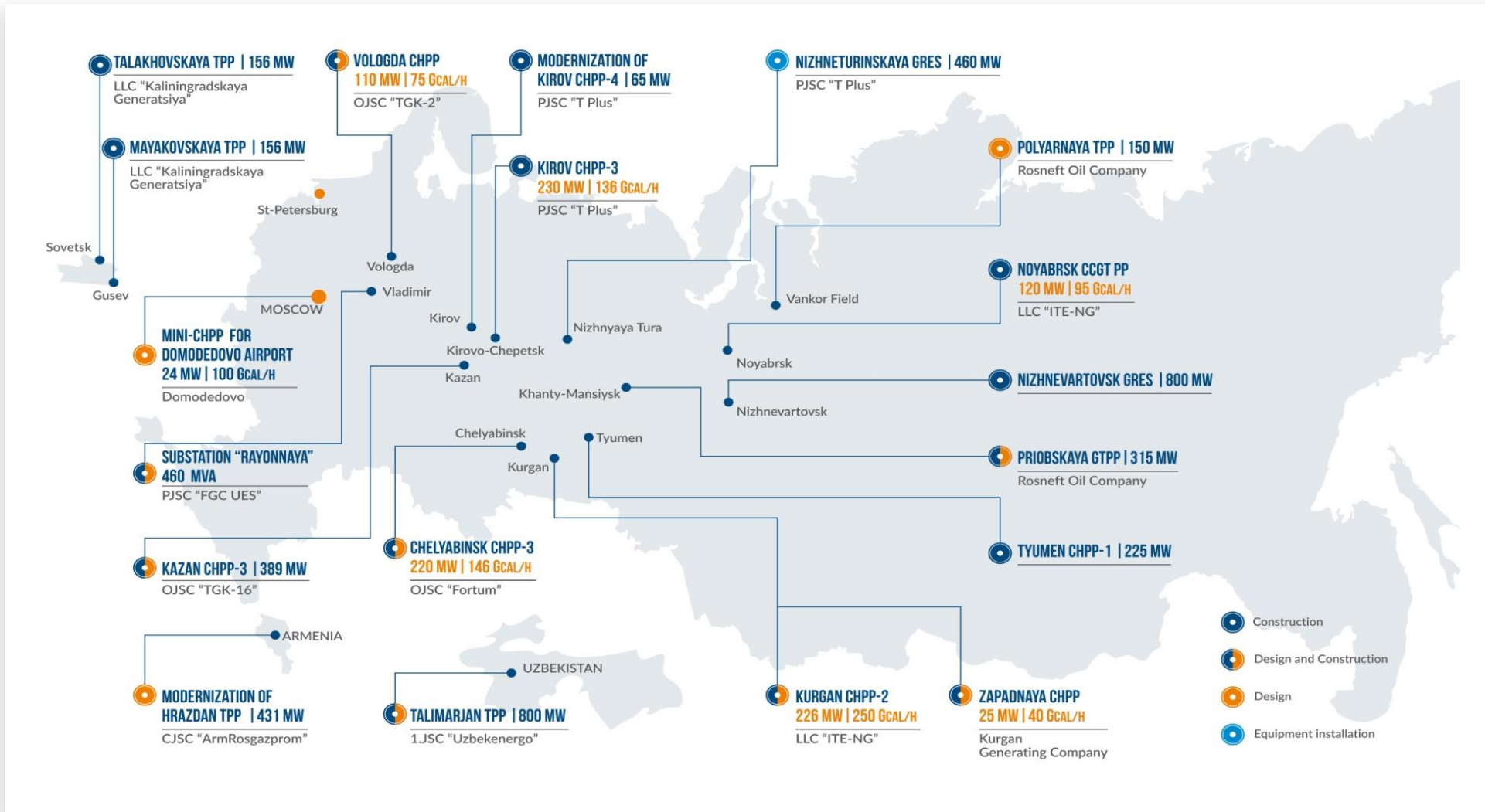
**45** certificates

**35** disciplines

**35** types of permits for work



# REFERENCES IN POWER GENERATION AND INDUSTRY SECTOR



18 years in the engineering market

3 900 MW of installed electrical power

15 power plants and industrial facilities

23 power units built on "turn key" basis

# IOT - PLATFORMS FOR BUSINESS

## POWER FACILITIES MANAGEMENT PLATFORM

- Full visibility of processes at a power facility
  - Accurate data transfer in real time and reduced time for analysis and problem-solving
  - Reduction in operating expenses



## NATIONAL COMMUNICATIONS OPERATOR

- One-click management of industrial volumes of connections
- Facility monitoring in real-time
- Real-time management of thousands of devices using the Dashboard



## TRANSPORTATION MONITORING AND MANAGEMENT PLATFORM

- Identification of vehicle problems in real time before they arise
  - Monitoring drivers' discipline
- Data availability for accident investigation
  - Savings on fleet maintenance



## COMPUTER VISION

- 98% object recognition
- Instant notification of violations (3 sec.)
- Support for any scenario according to individual client needs
- Solution may be used anywhere in the world

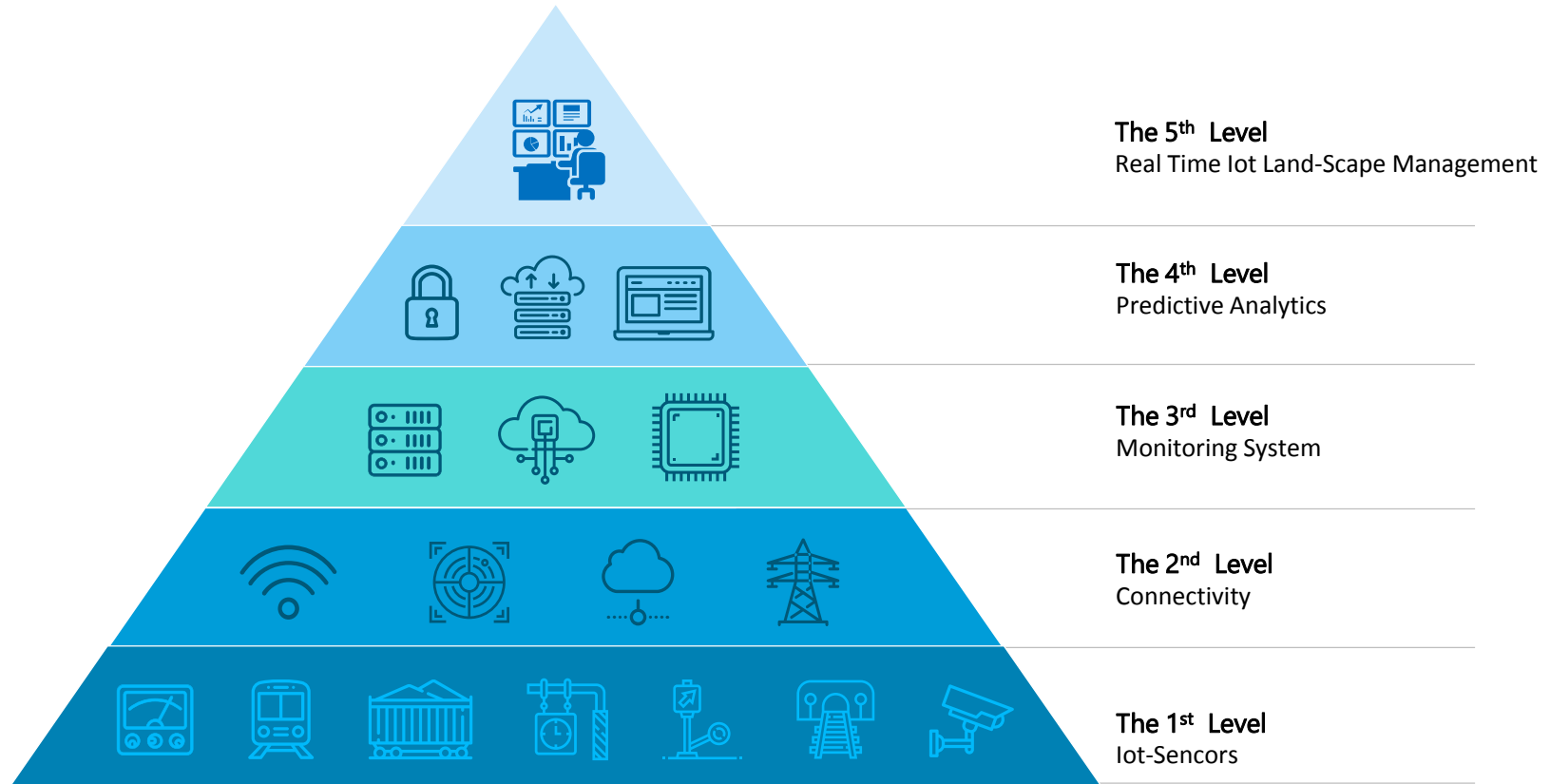


## M2M PLATFORM

- Joins telematics devices into a single full-scale IoT infrastructure
- Eliminates unauthorized device access and use
- Reflects device location
- Provides online billing for data transfer services



# DIGITAL INTELLIGENT NETWORK PROCESS



# INTEGRATED SOLUTIONS IN THE FIELD OF DESIGN AND CONSTRUCTION OF WASTE MANAGEMENT FACILITIES

## Stage 5

### Final product

- Engineering, design and construction of enterprises for the production of products from recycling
- Manufacture and supply of equipment

## Stage 1

Collection, transportation and management integrated process control system for the collection, removal, processing and marketing of waste management, including

- Digitalization of waste management
- Feedback systems, mobile application

## Stage 4

### Involvement in recycling

Use of recycling products

- Alternative fuel
- Polymer pellets
- Foam glass and glass flour
- Polymeric Fiber and Flex
- Compost
- And so on.

## Stage 2

### Mechanical-biological treatment

Sorting and industrial composting

- Engineering, design and construction of modern waste sorting plants, composting facilities "turnkey"
- Operation of plants / facilities

## Stage 3

### Processing

- Design and construction of recycling facilities
- Manufacture and supply of equipment
- Operation of facilities

## Deposition

- Design, construction and rehabilitation of landfills, using modern technologies
- Operation of landfills



Waste
  Resource
  Production
  Consumption

# OTHER TYPES OF BUSINESSES AND AREAS OF POSSIBLE COOPERATION

## Our Group of companies + Korean companies



**30** thousand employees

**15** More than types of business

**11** regions of presence in the RF





# ANNEXES AND PROPOSALS FOR CO-OPERATION

AREA-WISE DETAILS

## Equipment fabrication

- ✓ Total area - **24 ha**
- ✓ Floor area - **88 471 sq. m**
- ✓ Electric Energy - **24 MW**
- ✓ Thermal energy - **40 Gcal/h**

- modern industrial park, "Brownfield" type
- provides residents with premises ready for use and equipped with the necessary utilities (electricity, gas, water, railway) to accommodate new production facilities.
- construction of new industrial buildings for the needs of the resident (built-to-suit)



## The best place for production localization

### Advantages

- The convenient geographical location, transport and logistics
  - Support from the public authorities
  - Ready infrastructure and fully prepared ground for the location of production
  - Comfortable investment climate: tax incentives
  - Low rent
  - Low rates for electricity and heat
  - Qualified Human Resources
- 
- 7 of the 20 largest cities of Russia are located within a radius of 1000 km
  - the population within a radius of 500 km. - 14.3 million people within a radius of 1,000 kilometers - 27.6 million people.



- Tyumen-191 km
- Chelyabinsk-237 km
- Yekaterinburg-330 km
- Moscow-1730 km



- The city centre is 3.5 km away.
- Federal highway M-51 "Baikal" - 8 km.
- Kurgan airport is 10 km away .
- railway station "Kurgan" with access to "Transsib" - 1 km.

### Residents:

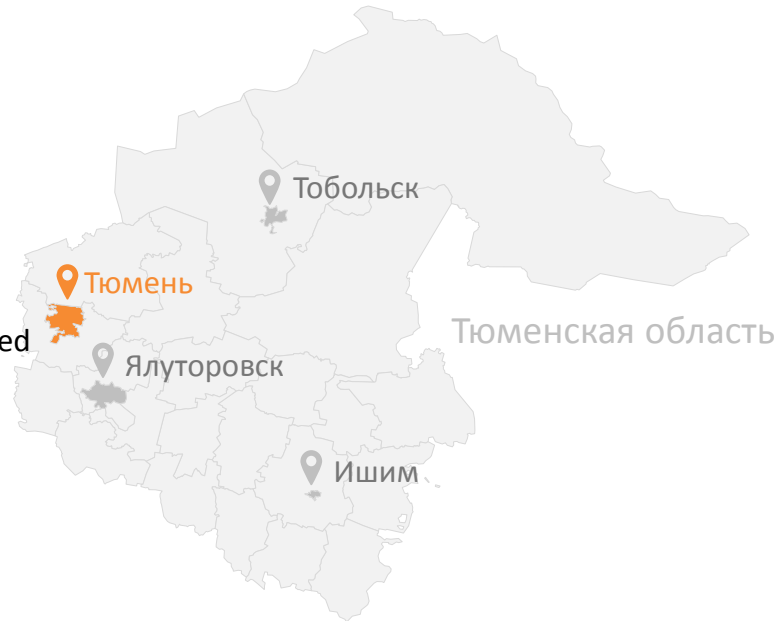



- **Kurgan plant of integrated solutions** - production of power and auxiliary equipment
- **Citypoint Production** – telematics control products based on GLONASS / GPS
- **Kurgan plant of power technologies** - production of pre-insulated pipes for heat supply companies and utilities (Russian-Finnish joint venture with Finnish power giant "Fortum")


[www.ipark45.ru](http://www.ipark45.ru)

## Current projects of the company

### 1 Construction and design of waste sorting plants



 Construction completed

 Stage of construction

 Design stage

- 2018-commissioning of the most powerful waste sorting complex in Russia in Tyumen
- 4 projects are under implementation



Areas of cooperation with Korean companies:

- 2 The construction of stabilization/composting of the organic fraction of municipal solid wastes
- 3 Selection and completion of equipment for the production of alternative fuels (RDF and SRF)



## Waste sorting plant in Tyumen

90 tons/hour when working in 1 shift

3 lines sorting for simultaneous distribution of several types of feedstock

Spare space for the subsequent stage of waste processing



- 22.000 square meters of class A and B office space, as well as other types of real estate
- Great location in downtown
- developed infrastructure
- modern buildings and engineering solutions

## Area of interest: development and Smart City



An example in Yekaterinburg :

BC "Delovoy dom na Arhiereykskoy" (Class "A")

BC "Venskiy dom"

BC "Stroganov"

are among the Top 10 Best of the city offices

- the availability of spaces for complex modern development ("smart city")
- provision of utilities and the possibility of connecting the necessary utilities

## Areas of cooperation with Korean companies :

- joint development (residential and office real estate, construction of industrial parks)
- professional management of real estate items (smart management systems and video analytics)
- auto business and smart management systems of vehicle parks
- implementation of the pilot project "City of the Future" near Yekaterinburg (using the technologies of the "smart city")

### We can offer

- construction of office and production facilities for Korean companies
- Renting completed office premises in 11 regions of presence in Russia, including





## Area of interest: farming sector. Livestock farming and crop farming



- Areas under cultivation : 22 thd. ha
- Output of harvest : 2,7 t/ ha
- Gross collection in 2019: 60 thd. ton
- Cultivated crops: wheat, barley, oats, winter rye, peas, flax plant.

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A unique distinguishing feature: the only livestock enterprise in the Tyumen and Sverdlovsk regions which possesses the status of pedigree reproducer of the premium breeds "Salers", "Obrak", «Gereford».

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- Large cattle stock (forage-fed cows and premium breeds of bulls): 15.5 thousand
- Gross annual yield: 12 thd. ton
- premium beef production: 280 tons / year
- sales of breeds: 400 heads of selected breeds in 2019.

## Areas of cooperation with Korean companies :

- purchase or joint development of digital integrated solutions - “smart farming sector” - implementation of AI and neural networks to the farming sector, Big Data software solutions
- purchase or joint development of solutions with regard to technologically advanced and economically efficient breeding of the large cattle
- purchase or joint development of process solutions with regard to crop farming
- purchase of robotic agricultural equipment

### We can offer

- deliveries of organic meat and agricultural products to Korea
- deliveries of breeding cattle
- joint pedigree breeding to grow agricultural crops and large cattle



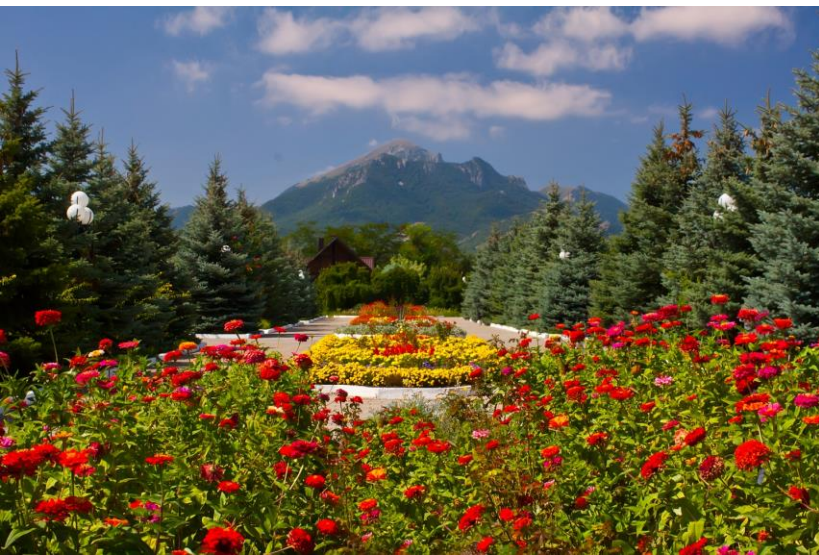


# MASHUK AQUA-THERM



- ✓ closed guarded territory with a large green area (12.5 ha)
- ✓ Private well of mineral water “Legend of the Caucasus”
- ✓ thermal therapeutic facility "Italian Therms" on the premises
- ✓ licenses for over 100 medical activities and more than 30 world-class qualified physicians
- ✓ private spring lake with the beach area and an opportunity to fish
  
- ✓ Top 10 Best medical Resorts in in Russia
- ✓ Laureate of the national contests “Best Medical Resorts” in 2013, 2015 and 2017
- ✓ TRIPADVISOR’s quality certificates in 2015, 2017, 2018
- ✓ Booking.com «Guest Review Award» (score – 9.1)

## Area of interest: health care and recreation



## Areas of cooperation with Korean companies :

- Development in the Region
- purchase or joint development of digital integrated solutions - “smart health care”
- purchase of medical equipment

### We can offer

- Individual and group trips, recreation opportunity
- Touring the historical places of the North Caucasus (the place where Lermontov's duel occurred, the Elbrus, Pyatigorsk)
- Special offers on requests



Contact us

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[www.center2m.com](http://www.center2m.com)

IOT-solutions

[www.ipark45.ru](http://www.ipark45.ru)

industrial park

[www.kzkt45.ru](http://www.kzkt45.ru)

Kurgan plant

[www.ddarh.ru](http://www.ddarh.ru)

development, real estate

[www.en.sanatory-mashuk.ru](http://www.en.sanatory-mashuk.ru)

tourism, recreation