

# CHAMPION RULES



MIRRICO  
GROUP OF COMPANIES



CHAMPION  
RULES





## SET GOALS

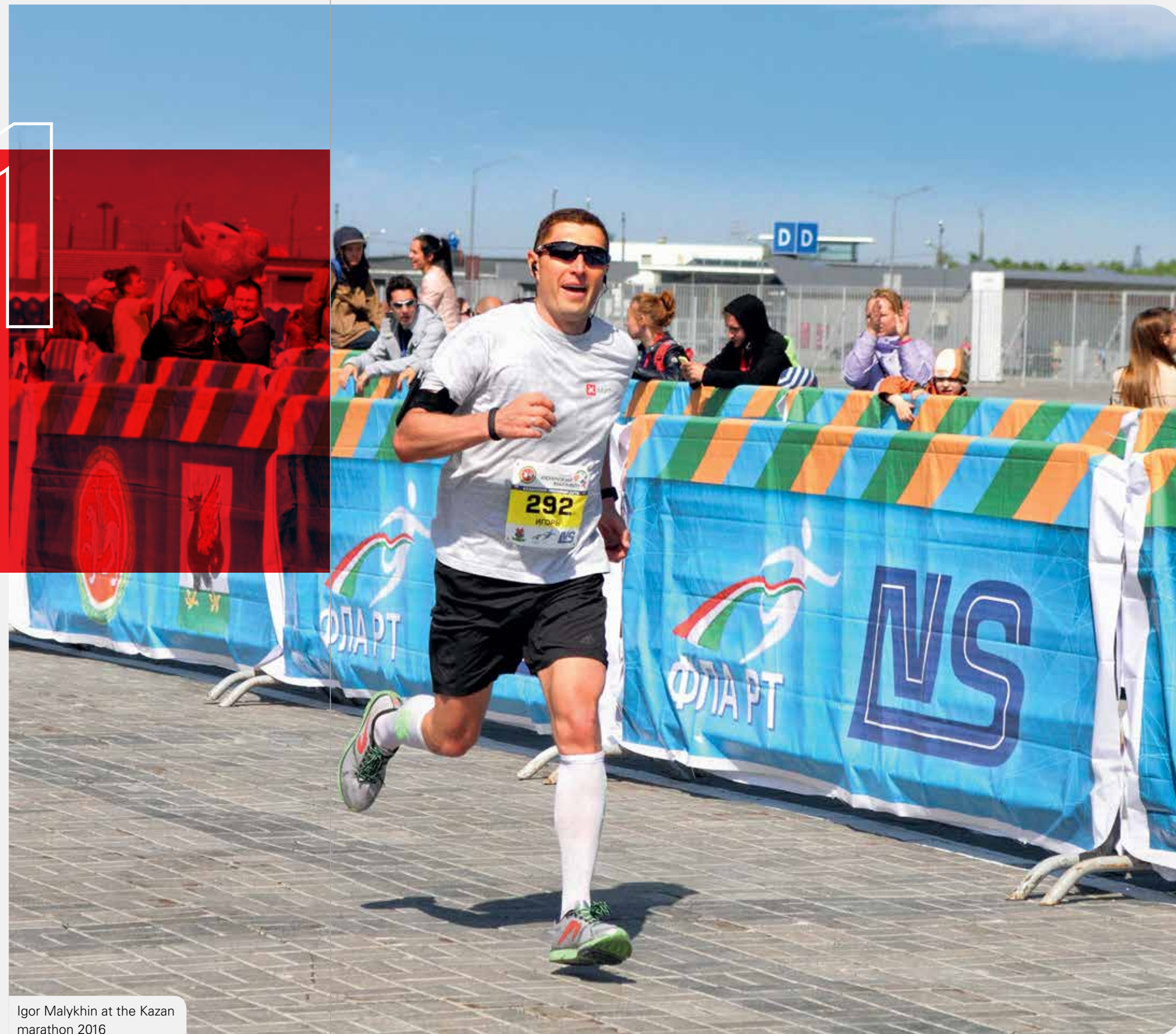
Successful athletes always have specific goals regarding what they want to achieve.

RULE

”

*Our goal is to empower our partners with our knowledge and experience.*

Igor Malykhin,  
General Director of the Mirrico Group



Igor Malykhin at the Kazan marathon 2016



# THE MIRRICO GROUP



Mirrigo is a group of companies from Kazan (Russia). We operate across the country and seek to expand our business all over the world.

- ● **Our goal is to become a leader in the development, delivery and maintenance of chemical solutions in the EurAsEC countries and the Middle East.**

Within the framework of the export promotion program of the Mirrigo Group, we develop the Middle East markets (Oman, Kuwait, Saudi Arabia).

We focus on advanced technologies, experience and knowledge. Our work in the innovation sphere is a scientific research of the best chemical and technological solutions in the context of efficiency for various industries.

We have chosen the path of strengthening our positions in technical and technological expertise, creating distinct competitive advantages of the products and services we offer.

Strengthening our partners with our knowledge and experience, we contribute to the balanced development of economy, society and environment.



”

*The offer to the foreign markets must be adamant in terms of quality and cost. Today the Mirrigo portfolio includes the products and services that can stand the global competition: corrosion inhibitors, additives, robotic system for tank cleaning et al.*

I. Malykhin.

# MAIN BRANCHES OF MIRRICO GROUP



## EXPLORATION AND PRODUCTION OF OIL AND GAS:

- WELL CONSTRUCTION:
  - Chemicals and drilling fluid services
  - Lost circulation control services
  - Chemicals for well casing operations.
- WORK WITH SUBSURFACE RESERVOIRS:
  - Tracer tests
  - Chemicals and services for enhanced oil recovery
- WORKING WITH THE SURFACE INFRASTRUCTURE:
  - Chemicals and services for the processes of oil production and treatment
  - Cleaning of tanks and technological equipment.



## PIPELINE TRANSPORTATION OF HYDROCARBONS:

- Chemicals and services for pipeline transportation of oil and petroleum products
- Rental and sales of dosing equipment for pipeline drag reducing additives.



## OIL AND GAS PROCESSING:

- Additives for improvement of the quality of commercial petroleum products
- Chemicals for protection of technological process equipment of oil and gas processing.



## CHEMICAL AND PETROCHEMICAL INDUSTRY:

- Chemicals for protection of technological process equipment of petrochemical plants
- Chemicals for the preservation of quality of the commercial monomers.



## COAL MINING AND BENEFICATION:

- Flotation chemicals.



## WATER TREATMENT AND INDUSTRIAL WASTES PURIFICATION (in oil and gas processing, chemical and petrochemical industry, ferrous and non-ferrous metallurgy, livestock breeding, poultry breeding) AND IN URBAN WATER AND SEWAGE LINES.

- IMPROVEMENT OF ENTERPRISE WATER CIRCULATION SYSTEMS EFFICIENCY:
  - Chemicals and services for water circulation systems
  - Chemicals and services for preliminary water treatment and maintenance of reverse osmosis systems
  - Chemicals for wastewaters purification
  - Audit of water systems, projects for increasing its efficiency.

”

*Today in Russia, there is no other company which offers solutions for each segment of the oil and other industries, like we do. We have competitors in certain areas, but there is no other company in Russia, which provides such a broad range.*

I. Malykhin.



# OWN PRODUCTION



OPU-30 LLC is a proprietary factory of Mirrico located 14 km away from the city of Almet'yevsk (Republic of Tatarstan).

more than **10** years of work

## THE RANGE OF PRODUCTS — CHEMICAL REACTANTS:

- for well drilling
- production
- transportation
- oil treatment
- protection of oilfield equipment and pipelines from corrosion and other complications нефтехимии;
- for oil and gas processing and petrochemistry
- treatment of recycled water

All products undergo full quality control according to ISO 9001:2008: from the acceptance and intermediate control of raw materials entering the factory to control of transportation conditions of finished products to the customer.

- **From 2016, Mirrico Group Research Center started the process of production scaling. Its goal is the early introduction of results of research and development work.**



”

*In 2014, we developed 6 new products, by the end of 2016, 14 products were created. Nine of them are not just well developed from the point of view of chemistry, but they immediately began gaining commercial success. Our plan for 2017 is 26 new products, and this figure will continue to grow.*

I. Malykhin.



# QUALITY ASSURANCE



The Mirrico Group systematically engages in the planning, assurance, monitoring and quality control of products and services, including introduction of promising and accurate methods of laboratory control of product quality assurance.

- In 2009, the company has implemented a quality management system (QMS) complying with ISO 9001 which keeps functioning nowadays.



Business units of the Mirrico Group are certified by the Certification Association "Russian Register". It is an independent certification body recognized in Russia and abroad, established in 1993. It is a member of the International Network of Certification Bodies IQNet and IAF and is accredited by the Dutch Accreditation Council RvA.

QMS certification enables to maintain product quality at a consistently high level.



## RECORD THE RESULTS

RULE

2

Good athletes not only set goals and exercise, but they track the work done, record the results. This enables to observe the process and make timely changes in the course of training.

”

*If you want to grow, you should keep track of the progress: if you see the strengths - then develop them, and the weaknesses should also be improved.*

Anton Kachurin,  
Operations Director of The Mirrico Group



Anton Kachurin in international competitions IRONSTAR 113 KAZAN 2017



# FOCUS ON THE RESULT, WE DO THE CHEMISTRY!

49 markets  
in 7 industries



Leader in the tracer tests



Leader in chemicals market for drilling and oil recovery



Among the three leaders of oilfield chemicals supply and services



As a service company, we have access to facilities where we can observe the problems of the customer. Through many years of practice, we managed to achieve understanding of the best solutions in cases of certain complications.

Today, Mirrico is a production and service company. We deepened our chemical expertise, began to independently produce those products that we consider unique or that demonstrate distinct competitive advantage.

## BRAND FLAGSHIPS

Technologies

### 1 Tracer tests of oil reservoirs

Advantage

Technologies of interpreting the results of tracer tests are unique in Russia in terms of volume and quality of information.

Experience

Technologies demonstrate high efficiency due to the combination of works:

- selection of the necessary tracers;
- work on the tracers upload;
- laboratory analysis of samples and interpretation of results in specialized software.



Industry

Oil exploration and production

Applied in companies\*

- ROSNEFT
- NOVATEK

Technologies

### 2 Technologies for loss circulation control QUICK-STONE, CAVE-BLOCK

Advantage

Possibility of using a broad range of temperatures, high rate of solidification.

Experience

Efficiency of solving customer problems at 90–100% level.



Industry

Oil exploration and production

Applied in companies\*

- ROSNEFT
- SURGUTNEFTGAS
- ORENBURGNEFT
- LUKOIL
- BASHNEFT KAZMUNAIGAS

\* Including subsidiaries.



CHAMPION RULES

Technologies

3

**Technology of tank cleaning and oilfield equipment with subsequent phase separation of the extracted settlings—mobile autonomous robotic unit MARTin**

Advantage

MARTin technology and equipment meet international standards of safety and quality and allow for tank cleaning without human presence inside of it.

Experience

As a result of processing the extracted settlings, 589 m3 of oil were returned to the customer (which accounted for 76% of the total volume of sludge (Gazpromneft-Khantos LLC).

Industry

**Oil exploration and production**

Applied in companies\*

- SIBUR
- GAZPROM NEFT

Technologies

4

**Granular corrosion and scaling inhibitors SCIMOL WSC**

Advantage

Compatibility with other reactants; no need for dosing equipment, environmental friendliness, increase of time between repairs for wells.

Experience

Testing of encapsulated corrosion inhibitor ScimolWSC in the well showed a protective effect of about 90–96%. When testing encapsulated inhibitor of scaling DescumWSC, stabilization of wells in terms of oil production rate and pressure was observed.

Industry

**Oil exploration and production**

Applied in companies\*

- ROSNEFT
- GAZPROM NEFT
- SURGUTNEFTEGAS
- LUKOIL
- BASHNEFT
- RUSSNEFT
- SLAVNEFT
- UZBEKNEFTEGAZA3

BRAND FLAGSHIPS



Technologies

5

**Drilling fluid system WELL-SLIDE**

Advantage

Easier control compared to the traditional systems, such as KCL-Polymer, "Encapsulating", etc. It has inhibiting properties; does not require retrofitting of drilling unit equipment; environmentally safe.

Experience

Alternative to emulsion drilling fluids.

Industry

**Oil exploration and production**

Applied in companies\*

The system is prepared for industrial replication.

Technologies

6

**Biodegradable lubricant for drilling BIOLUB GREEN**

Advantage

It can be used at high temperatures. The effectiveness of the lubricating base in 1.5–2 times higher compared to previously used bases; environmentally safe.

Experience

It shows lower torque, reduced friction coefficients, increased mechanical speed of drilling.

Industry

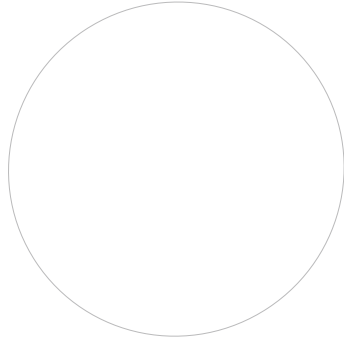
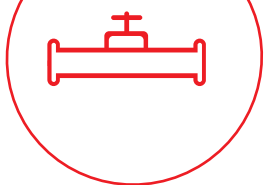
**Oil exploration and production**

Applied in companies\*

- ROSNEFT

\* Including subsidiaries.





Technologies

**7 Technology MC-ROCK for remedial cementing**

Advantage

Higher penetrating ability in conjunction with smaller particle sizes down to 5 microns. High strength characteristics of the formulations in comparison with the classic cements.

Experience

The effectiveness of this technology is 85–100%.



Industry

**Oil exploration and production**

Applied in companies\*

- SLAVNEFT
- YANGPUR
- ROSNEFT

Technologies

**8 Turbulent viscosity reducing additive M-FLOWTREAT**

Advantage

It is the first additive of national manufacture which was included in the register of major products of Transneft.

Experience

To ensure the desired mode of the pipeline operation, the effective dosage of M-FLOWTREAT additive is less than that of the basic reagent.



Industry

**Pipeline transport of hydrocarbons**

Applied in companies\*

- ROSNEFT
- TRANSNEFT
- GAZPROM NEFT



Technologies

**9 The additives package for diesel fuel: depressing and dispersing additive DEWAXOL and lubricity additive ATREN LUB**

Advantage

Optimal price /quality ratio.

Experience

The efficiency is equal to imported analogs. Testing on diesel fuel was carried out at the refinery of LUKOIL, at TATNEFT, GAZPROM, KHABAROVSK REFINERY, etc.



Industry

**Processing of oil and gas**

Applied in companies\*

The system is prepared for industrial replication.

Technologies

**10 Polymerization inhibitors DEWAXOL and INFLOW**

Advantage

The increase of overhaul life of equipment, reduced production cost, decrease of polymer deposits on the equipment surface.

Experience

The increase of life between cleanings more than two times compared to the results of competitors.



Industry

**Processing of oil and gas**

Applied in companies\*

- KAZANORGSINTEZ
- UFAORGSINTEZ
- SIBUR
- SINTEZ-KAUCHUK
- STERLITAMAK PETROCHEMICAL PLANT

\* Including subsidiaries.



11 **Inhibitors of coking and coke deposits DEWAXOL**

Technologies

Advantage

Optimal price/quality ratio. The Mirrico Group is the only manufacturer in Russia, capable of competing with foreign companies.

Experience

The current results show the efficiency of the selected compositions.



Industry

**Processing of oil and gas**

Applied in companies\*

- KUYBYSHEV REFINERY
- ANGARSK PETROCHEMICAL COMPANY

12 **Granulated cracking catalyst ATREN CAT**

Technologies

Advantage

Optimal price/quality ratio.

Experience

It showed efficiency equal to imported and domestic analogs by unit consumption, activity and selectivity.



Industry

**Processing of oil and gas**

Applied in companies\*

- SYZRAN REFINERY
- KUYBYSHEV REFINERY



13 **Flocculants and coagulants DECLEAVE-M and SEURVEY**

Technologies

Advantage

The use of flocculants can significantly increase the performance of the horizontal and radial sludge tanks, flotation plants, filtration and other equipment.

Experience

The use of Seurvey flocculants allowed achieving the required efficiency of sewage treatment from oil products- at the level of 86–91 %.  
The efficiency of industrial wastewater treatment in the flotation unit with the application of DECLEAVE-M increased from 30 to 84 %.



Industry

**Water and effluent treatment**

Applied in companies\*

- SOUTHERN KUZBASS (MECHEL)
- KUZBASSRAZREZUGOL
- NORTHERN KUZBASS
- RASPADSKAYA COAL COMPANY
- KUZBASS FUEL COMPANY
- UK ZARECHNAYA
- VORKUTAUGOL
- YAKUTUGOL
- ROSNEFT REFINERY
- AKASHEVSKAYA POULTRY
- CHELNY-BROILERP

14 **Automated dosing unit of flotation agents in the coal industry**

Technologies

Advantage

Minimization of the human factor influence when dosing the flotation reagents; avoiding loss of reagent when dosing by eye

Experience

The stable quality of the flotation concentrate, increasing its output by 0.5% and reduction of reagent consumption is ensured.



Industry

**Water and effluent treatment**

Applied in companies\*

- EVRAZ ZSMK (INDUSTRIAL TESTING)

\* Including subsidiaries.



## BUILD A TEAM AND FIND A COACH

RULE

3

Athletes train regularly, their work is one of the pillars of success. The second is the coach, his professional competence will help to overcome the most difficult obstacles, and the third is the team that will always support.

”

*Working as a team, we strive not only to achieve the best results, it is important for us to trust each other.*

Veronika Anisimova,  
Director of the HR Department of the Mirrico Group



The Mirrico Group team  
at the Kazan marathon 2017



# 38% OF TOP MANAGERS STARTED THEIR CAREER IN THE COMPANY AS SPECIALISTS

Human capital is the factor, investing in which you can make the company competitive, unique, and successful in the market. Investment in management system, education in MBA school, which was completed by the entire top management team, as well as consistent implementation of personnel policy have led to our leadership positions.

- ● **Our coaches are primarily customers and competitors: we study the needs of the first, and experience of the second, and compete with ourselves.**



”  
*We have never wanted to be just average performers, we wanted to be at least in top three market leaders. It should be remembered that the competitors in our market are not only Russian companies but also foreign companies. And to win the foreigners, you have to be by head and shoulders above them.*

I. Malykhin.



## OUR CUSTOMERS





# TALENT POOL



The Mirrico Group builds ambitious plans for the future: in 2015, the company adopted the Talent Pool program. The work is carried out with the management, organizational, and specific staff.

Thanks to the program, the professional skills of leaders are supported and developed, the continuity of the management experience is ensured.

”

*We have ambitious employees. The top management team looks forward with optimism. Our task is to continue developing the business. We have good and ambitious plans.*

I. Malykhin.



## THINK AHEAD

The athletes are responsible for the competition: victory or defeat is an important experience which allows you to move forward

”

*Dreaming of the victory, it is better to focus on bright prospects, rather than on possible obstacles.*

Dmitry Kuzin,  
Senior Engineer, Group of Chemical Solutions for Well  
Construction of The Mirrico Group

RULE

4



Dmitry Kuzin at a stage of the Cup of Russia in Triathlon IRONSTAR 113 KAZAN 2016



# INNOVATIVE RESOURCES OF THE MIRRICO GROUP



The search for new markets and ideas, the introduction of technological innovations is an important part of the development strategy of the Mirrico Group. This is the main activity of the Department for Strategic Development and Marketing and Department for Innovations.

**JOINT PROJECTS OF THE GROUP'S BUSINESS UNITS:**

49 markets are covered by the solutions of the Mirrico Group.

 49

**QUALIFIED PROFESSIONALS:**

10% of the employees of Mirrico Group are involved in innovative activities.

 10%

**WIDE GEOGRAPHY OF OPERATIONS OF THE MIRRICO BUSINESS UNITS:**

The Group supplies products and performs maintenance services for chemical solutions on the industrial markets in Russia, CIS and the Middle East.



**PROPRIETARY LABS WITH ANALYTICAL EQUIPMENT AND EQUIPMENT FOR SYNTHESIS OF THE PRODUCTS:**

Laboratory area of the Mirrico Group is over 2000 sq.m.

 2000 m<sup>2</sup>

**SCALING STAGE AND OWN PRODUCTION FACILITY:**

50,000 tons per year is our chemical production (from mixing to synthesis).

 50 000

All this enables us to develop and bring new products to the market in a very short time, and most importantly, to offer our clients truly modern and unique solutions.

# INDUSTRIAL REVOLUTION



For the Mirrico Group, it is important to keep up with the times. IT developments are of great importance today in all industries: ERP systems, Big Data, the Internet of Things. Work in a single information field is the key to new efficiency. We see the future in the integration of the software between customers and contractors.

The team of programmers of the Mirrico Group is engaged in the implementation of global software and development of their own solutions, paying great attention to information security.

## UNIQUE SPECIALIZED SOFTWARE OF THE MIRRICO GROUP:



Software for modelling of the reservoirs and use of chemicals;



Software for tracer tests in multi-zone hydraulic fracturing.

In the future, we will engage in software development for automatic dosing of the oilfield chemicals.

The program for integration of information technologies is in effect in the company and it is planned up to 2022.

### 1 stage:

#### introduction of digital business analytics

- Maximum visibility when taking the management decisions.

### 2 stage:

#### introduction of Big Data technologies and machine thinking

- Optimization of all processes in the company, including R&D.

### 3 stage:

#### Internet of Things

- Ability to work proactively
- Simplified commercialization of advanced solutions

We consider the e-economy solutions in relation to the business of our company and the needs of our customers. And, trust us, we will surprise you soon.



”

*We are committed to reducing dependence on foreign suppliers of industrial software.*

I. Malykhin.





**FOCUS ON THE RESULT,  
WE DO THE CHEMISTRY!**

Comprehensive solutions of technological tasks in oil and gas production, oil and gas processing, petrochemical, chemical, mining, and metallurgy industries.

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