







TMK'S CORPORATE UNIVERSITY GOES GLOBAL





### INTERVIEW

A WIDE RANGE OF EXPERTISE ON OFFER Olga Rud, Director of Client Program Development at TMK2U, sat down to discuss the launch of a new business line to help market the Corporate University to outside customers.

COMMENT Elena Pozolotina, TMK Deputy CEO for Human Resources – Director of TMK2U Corporate University: «The decision to go beyond internal training is an important step for both the Corporate University and TMK.»

### PRODUCTION

TOP FINISHING TECHNOLOGIES

A major upgrade of the heat treatment facilities in its tube drawing shops at Pervouralsk Pipe Plant will expand the line-up of carbon and low-alloy steels and increase economic efficiency.



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10

12



### SUSTAINABLE DEVELOPMENT CLEAN WATER TECHNOLOGIES

TMK upgrades the bioengineering facilities at its Seversky Pipe Plant. The technology mimics the natural process of self-purification and provides stable and effective wastewater treatment.

### SAFETY AND HEALTH

CENTER FOR SAFETY MANAGEMENT TMK opens a state-of-the-art health and safety management center at the Volzhsky Pipe Plant to coordinate industrial safety issues at the enterprise.

### YOURTUBE №1 (40) 2023

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14

18



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**Focus** on **Ergonomics** and Greener Manufacturing



TMK-INOX has put an advanced mill for cold-rolling long stainless steel pipe into pilot operation. The mill meets all the requirements to produce pipes with high quality external and internal surfaces and high geometric precision. Engineering solutions used in the new mill help it operate in an eco-friendly manner, while streamlining the process and saving energy.

The mill employs non-graphite cutting fluids and avoids additional processes such as applying graphite lubricant before cold rolling as well as cleaning the surfaces of rolled products in a special bath filled with molten alkali salts. The streamlined process is less energy intensive and generates less waste, which itself is also rated at a lower hazard category, thus minimizing the consumption of components harmful for human health and the environment. The equipment is fully automated, meaning lower labor costs and high process safety.





### TMK HOLDS FOOTBALL **FESTIVAL IN THE SOUTH URALS**

TMK organized a sports festival in Chelyabinsk for pupils of football schools and clubs with the participation of Russian football stars. The event was attended by 130 young football players aged 3 to 12.

Legends of the football club «Spartak» held a master class at the Signal sports complex. They taught a warm-up for beginner athletes and their coaches, showcased how to develop individual elements and what exercises to practice on the field, and shared their secrets of the game. As part of their visit to Chelyabinsk, Russian football legends played a friendly match with

teams from the Chelyabinsk Pipe Rolling Plant, which is part of TMK. The quests also visited the production site itself, where they got acquainted with the production process of largediameter pipes in the Vysota 239 workshop and, under the guidance of mentors, tried themselves as a shift supervisor, pipe insulator on the line and pipe calibrator on the press.

TMK has been a partner of the Russian Football Union since 2019 and actively promotes the development of football by supporting sports teams and creating infrastructure in the regions where it operates.



### **ENERGY-SAVING LIGHT**

Pervouralsk Pipe Plant (PNTZ) has upgraded its industrial site lighting system. As a result, its electricity consumption will decrease by over 1,500 MWh, saving over RUB 5 million a year. The plant has replaced over one thousand lamps at Pipe Rolling Shop No. 1, the shipment area for finished and semi-finished products at the Iron Ozone 32 electric arc furnace shop, and the warehousing department. The outdated mercury-containing lamps were replaced with modern LED lamps selected to match the operational profile of the industrial facilities. They are extremely safe and resistant

to extreme temperatures and environmental exposure. While providing comfortable, flicker-free, and glare-free light, the new lamps are maintenance-friendly and are not subject to special safe disposal requirements, which also adds to savings. A large-scale lighting upgrade program has been in place at the plant starting from 2018. Almost 5,500 LED lamps have been installed across the plant's shops since then. In 2023, the plant is planning to replace close to 500 lamps at the woodworking section of the mold casting shop, at Pipe Rolling Shop No. 5, and at the power supply shop's facilities.



### **UPGRADE THROUGH PROPRIETARY SOLUTIONS**

Pipeline Connecting Bends has ramped up its large diameter bend production capacity by upgrading its equipment under an in-house engineering project. Previously the company used only one mill to manufacture bends (curved connections for pipelines) with a diameter up to 1,420 mm but has now boosted this number to two by upgrading a mill that used to manufacture bends with diameters up to 1,220 mm. To this end, local specialists leveraged a new solution a large diameter pipe divided into two half-cylinders, with an anti-corrosion coating applied afterward.

# OFFER RAN **W VIDE** Û



POTENTIAL.

So far, 276 external trainees from eight companies have completed our courses and provided positive feedback on our products. The program quality can be seen from the demand of clients, who are now our regular customers and want to train new groups of employees from their subsidiaries this year, as well as the fact that new clients are coming to us through

005

### TMK HAS LAUNCHED THE CLIENT PROGRAM **DEVELOPMENT CENTER TO HELP MARKET** THE TMK2U CORPORATE UNIVERSITY TO OUTSIDE CUSTOMERS. OLGA RUD, DIRECTOR OF CLIENT **PROGRAM DEVELOPMENT AT TMK2U,** SAT DOWN TO DISCUSS THE CENTER'S NEW **PRODUCTS, SERVICES AND DEVELOPMENT**

### Olga, TMK2U is now focused on promoting its services to the external market. Tell us about the ground work you did in preparation for the launch of the new business line in 2022. What results have you already achieved?

The development concept of the TMK2U Corporate University originally envisaged building a B2B business. By 2022, we had built a portfolio of quality products ready to be marketed to our clients. TMK2U has now reached the point where we can safely say that our services will help companies successfully address their management challenges.

We are now focused on working with our key clients – oil and gas companies – to build up the necessary competencies among their specialists out in the field to help them work properly with TMK products. To do this, the Corporate University has developed a suite of training programs covering casing and tubing operations, improving the operational reliability of gathering pipelines, working with premium threaded connections, and other aspects.

We are working closely with specialists from TMK-Premium Service, TMK's R&D Center in Moscow and RUSNITI. Our colleagues take an active role in developing Corporate University programs, giving us insights into customer needs and acting as trainers. Such programs help our counterparties reduce the risk of errors when operating TMK products, while providing an opportunity for both the Corporate University and the Company's technical specialists to get feedback from clients, understand their needs and decide on next steps. This is how we are fostering cooperation that truly benefits both sides.

External customers choose products such as technical and management skills programs, e-courses and competency assessment services



referrals from those who have already worked with us. We offer them training under new programs in diverse areas such as the production of electric-welded and seamless pipes and pipeline parts, accident-free operation of drill pipes and much more.

In addition, we forge relationships with the Company's internal customers, such as Sales and Commerce, as well as professional communities. This facilitates better and faster outcomes as these platforms enable much more effective communication than cold calling counterparties. In this area, relationships are mostly built around our flagship programs, such as Manage Effectively and Lean Manufacturing, as well

as executive coaching programs, mentoring, effective negotiations, and public speaking. We are confident that our products are of great quality, as shown by the track record and hands-on experience of running our projects at TMK. Corporate business trainers have delivered TMK2U programs to more than 10 thousand TMK employees. The university's coaching institute is up and running at full speed, with skilled talent joining in every year following a rigorous selection and training process.

On top of this, we provide employee evaluation services, where we have also gained excellent expertise. Over the five years since the launch of the

The Client Program Development Center helps develop and deliver face-to-face programs to improve management, soft or hard skills

The Center's key clients are oil and gas majors

Corporate University, we have honed both offline and online assessment center tools and now offer these services to our clients. At TMK alone, more than 4.000 people underwent evaluation over this period. We have built a pool of excellent performance appraisal experts at TMK2U through these hands-on engagements.

### What other products and services does the TMK2U **Client Program Development Center offer?**

Today, we can build a full cycle of HR processes for any client, from adapting management talent pool building, recruitment and onboarding methodologies to conducting turnkey social surveys and holding effective strategy and facilitation sessions.

As we were looking for convenient and cost-effective formats for employee training, especially when it comes to mass training, we set up our own studio to develop e-courses. Right now, TMK2U has 226 electronic courses on hard and soft skills, and we can develop any course to the client's needs or adapt an existing one.

We offer our partners a range of programs and consulting services that were developed by the internal team at the Corporate University, whether offline programs, webinars, master's programs, competency assessment services, or digital solutions.

### How are you working on customer relations?

When engaging with clients, we take a comprehensive approach and use all communication channels to promote the Corporate University's products. One such



### YOURTUBE

Working with major oil and gas clients in areas such as value-added services and advanced technical training programs is definitely a top priority. This is not only about business diversification, but also about customer focus. Our ability to rapidly identify and meet the needs of our partners strenathens our relationships and highlights TMK's core values.

### Denis Prikhodko, Deputy CEO for Commerce at TMK

TMK2U was established in 2017 to support continuous development of TMK employees. Today, the Corporate University offers more than 400 training programs and over 370 e-courses. In 2020, the university started offering training programs, employee evaluation services and social surveys to external customers. This area is the responsibility of TMK2U's Client Program Development Center.

We have a long history of close partnership with TMK2U. We have been supporting this line of business since the Client Program Development Center was established, providing access to our customer base and helping to establish collaboration between Corporate University specialists and commerce managers. They gave us an insightful presentation on the products and services that may be of interest to our partners. Of course, it is always difficult to get the ball rolling, so a team approach is important here.

> Evgeny Kravchenko, **Director for Procurement at TMK**

007

tool is participating in exhibitions and conferences. where we can meet and talk to our potential partners face-to-face. At such events, we strive to not just be an exhibitor, but also set up TMK2U promotional activities.

For example, at a major corporate vocational skills competition, the Company held a fun and informative PechaKucha – or 20x20 – working breakfast for managers and human resource development (HRD) professionals from various companies, combining short but informative presentations with discussions and coffee breaks. This informal and active format sparked an exchange of views and experience on how useful and applicable the attendees found our products. At Metal-Expo





Clients have very different needs, from training for managers and employee retention strategies to developing digital products

Plans for 2023 include increasing the number of client engagements, including by developing training programs and HR procedures from scratch to meet specific customer needs

2022, we literally stretched our brains with our clients: our team held a masterclass on developing cognitive skills and a case study titled The Corporate University: From Forecasting to Effectiveness.

Of course, in the age of advanced technology, it is important to develop online tools, so we are focused on improving the TMK2U website, from its content to modern visual design.

We are doing more than just attending exhibitions: to enhance customer relations, we also rely on support from professional communities. The Corporate University and the Sverdlovsk Regional Union of Industrialists and Entrepreneurs joined forces to hold an off-site working meeting in Pervouralsk on improving engagement. Experts from 20 companies took part in the large-scale discussion. We also cooperate with the Agency for Strategic Initiatives on social impact education projects in the Chelyabinsk and Sverdlovsk Regions.

TMK2U receives not only external but also internal assistance when engaging with external clients. TMK

Following its success in training and developing the TMK team, TMK2U moved on to winning new customers



colleagues from Procurement and Sales provided substantial support in attracting new clients by sharing their customer bases and becoming a kind of an entry point to create relationships with chief HR officers from TMK's partner companies. In March alone, 12 face-to-face meetings are scheduled in a range of cities: Yekaterinburg, Chelyabinsk, Norilsk, Moscow, Rostov-on-Don, and more. At the same time, clients have very different needs, from training for managers and employee retention strategies to developing digital products. These are unique requests, and we are willing to tailor our products to them as much as possible and develop a turnkey solution, which highlights our flexibility and the strength of our customer focus.

### How do you identify customer needs for programs and services?

First and foremost, we communicate with our existing and potential clients to identify their pain points. We

009

use these insights to put together a suitable program based on the existing product portfolio or develop one from scratch.

We actively promote cross-functional collaboration, working closely with TMK teams that handle the Company's key accounts to identify the needs of these partners and jointly develop training plans covering advanced technical training programs.

More and more companies learn about our products and services as we grow our network of contacts and customer base. Often, these companies approach us themselves to ask whether we have a particular program or service on offer. These inquiries help us analyze and develop indemand products.

What's most exciting about our work is that it is a never-ending journey. With the rapidly evolving market and the fast-changing world around us, we always need to move forward.YT

In the past year, the Client Program **Development Center** took part in more than 10 forums

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THE NEXT STEP

TMK'S HUMAN

RESOURCES

IN DEVELOPING

The decision to go beyond internal training is an important step for both the Corporate University and TMK. The mere existence of an entity like a corporate university in the Company's structure indicates highly mature employee development processes. The launch of services for external customers definitely marked another milestone in our journey to develop TMK's human resources. In focusing on the new area, we are not pursuing any ambitious commercial goals and do not see it as an independent business project. Entering a highly competitive market provides an opportunity to expand our vision and planning horizons as well as additional tools for self-testing and self-evaluation. By analyzing training requests from external customers active in various industries, we will be able to better assess promising trends as they emerge, all while improving our own capabilities and providing TMK and our customers with relevant products. By engaging with partners through training projects, TMK can better understand the values and growth vectors of various economic sectors and market participants. This is clearly a major challenge that will boost the university team's professionalism, increasing its contribution to TMK's business. The first steps in this direction are encouraging: partners are expressing interest in our offering, and we already have several completed engagements under our belt and a number of long-term contracts signed. As we embark on this new journey, we hope it will be an exciting and valuable project for us, for the Company and for our partners.

Elena Pozolotina, TMK Deputy CEO for Human Resources – Director of TMK2U Corporate University

010

TMK2U

**Corporate University** 



# 012

### **TOP FINISHING** TECHNOLOGIES

PERVOURALSK PIPE PLANT (PNTZ) HAS COMPLETED A MAJOR UPGRADE OF THE HEAT TREATMENT FACILITIES IN ITS TUBE DRAWING SHOPS. NEW SOLUTIONS WILL EXPAND THE LINE-UP OF CARBON AND LOW-ALLOY STEELS AND INCREASE ECONOMIC EFFICIENCY.



furnace with protective

atmosphere and radiant tubes in Tube Drawing Shop No. 14. The upgrades made it possible to perform the tempering and low-temperature annealing (500–830 °C) needed to obtain the desired microstructure and mechanical properties of various tubes. For example, for ball bearing tubes, a specified hardness is required, while for aviation and space products, the pipes must have a decarburized layer depth within regulatory limits.

The furnace uses ceramic radiant tubes instead of metal ones as they heat up faster, provide better heat transfer and have a longer service life. The state-of-the-art pipe heat treatment equipment is fully automated

Phase 2 of the program was completed at Tube Drawing Shop No. 14 in January 2022, comprising a large-scale relocation and upgrade of the furnace at the special pipe production line. Its new additions included heating elements, instrumentation and controls, a shielding gas pipeline, and an extended furnace to process tubes up to 23 meters long.

′ tonnes per day – the capacity of the roller gas furnace at Tube Drawing Shop No. 9





### Vladimir TOPOROV. PNTZ's Managing Director:

"Investments in production upgrades are an integral part of the plant's sustainability policy, since new equipment meets the latest environmental requirements and improves the working conditions of employees, in particular by automating processes and reducing the amount of manual labor."

The upgraded furnace removes descaling and industrial etching from the process chain, which enabled us to cut negative environmental impacts, save electricity, natural gas and steam, and reduce the cost of chemicals.

The large-scale project to increase the heat treatment capacity of PNTZ's tube drawing shops came to a close with the commissioning of a roller gas furnace at Shop No. 9 at the end of last year. The plant expanded its heat treatment capabilities to manufacture pipes with superior performance characteristics.

The new unit consists of lifting tables, a roller radiant pusher furnace with ceramic burners, a cooling chamber, and vent lines with a total length of 90 meters. All processes are automated. The furnace capacity is 60 tonnes per day.

The new furnace eliminated several steps from the process chain, as there is now no scaling on the pipes that needs to be removed through industrial etching. In addition, the furnace rollers no longer need cooling. The new equipment heat treats pipes in a protective atmosphere at temperatures between 500 °C and 980 °C to create the desired metal structure. The improved heating system reduced natural gas and electricity consumption and emissions from combustion.

High-strength heat-treated PNTZ pipes are sought after in the aviation, oil, energy, machine building, and automotive industries as well as the production of boiler and oil and gas equipment.

Boris Pyankov, TMK's Technical Director, said: "The completed program of heat treatment equipment upgrades forms part of TMK's continued efforts to implement industry best practices in improving productivity and resource efficiency at our facilities. We really have something to be proud of here. When selecting equipment, we always consider aspects such as the energy efficiency and environmental safety of the technology solution as well as the volume of greenhouse gas emissions. YT

2021, PNTZ took an important step to expand its range of high value-added products by upgrading its roller pusher

## 014

## CLEAN WATER TECHNOLOGIES

TMK UPGRADES THE BIOENGINEERING FACILITIES AT ITS SEVERSKY PIPE PLANT. THE TECHNOLOGY MIMICS THE NATURAL PROCESS OF SELF-PURIFICATION AND PROVIDES STABLE AND EFFECTIVE WASTEWATER TREATMENT.



person far from bioengineering would probably be surprised to see a cascade of overgrown lakes measuring a dozen soccer fields on-site at Seversky Pipe Plant (STZ). But this is exactly what a natural wastewater treatment system looks

like. Club-rush, cattail, reed, buckwheat, water milfoil, iris, and other macrophytes grow well in contaminated waters, effectively removing huge amounts of hazardous compounds and heavy metals. Fish form another part of the ecosystem, released into the water body to serve as natural indicators of how well contaminants have been removed.

The water body is divided into smaller sections by a system of dams. The wastewater winds down the system, passing through plant-covered dams and leaving behind most suspended solids, metals and nitrogen group elements.

Every day, the system processes about 16 thousand m<sup>3</sup> of industrial wastewater from STZ, the northern part of Polevskoy and several local industrial enterprises. In the natural environment, the water is treated to water quality standards for fishing reservoirs, which are more stringent than requirements for drinking water. The



hectares total area of Seversky Pipe Plant's bioengineering facilities

treated water flows into the Severushka River and then into the Chusovaya River above Yekaterinburg's water intakes.

Elena Podgornykh, Head of Environmental Safety at TMK, said: "TMK is known as a responsible supplier of environmentally friendly and safe pipe solutions, using the best available technology in its production. The project to upgrade the STZ wastewater treatment facility into a biological treatment site is unique for the Company as it uses technology that simulates natural processes. Such solutions help mitigate the





plant's environmental footprint and ensure the environmental well-being of the city and region."

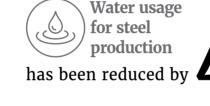
### ECOSYSTEM EVOLUTION

The bioengineered effluent polishing system was put into operation at STZ in 1995 and has been regularly improved over the years. Last year, as part of TMK's corporate sustainability policy, Constructed Wetland No. 3 was upgraded to make the wastewater treatment process more stable and to bring it into full compliance with water quality standards for fishing reservoirs.

Vadim Ozornin, Chief Environmental Engineer of STZ, said: "In nature, ecosystems adjust to changing environmental conditions; this is a neverending process of large and small changes. We continuously improve the bioengineered system because the environment in which it operates is constantly changing. For example, the composition of effluents coming from the city has changed significantly over the past 10–15 years: new types of detergents have come to market, the number of dishwashers has increased, and the number of households only continues to grow. With the volume of urban wastewater decreasing as consumers

> The ECOTECH-LEADER award recognizes achievements in developing, introducing and promoting advanced technology as a crucial element of the sustainability agenda in environmental protection and management. In 2022, 28 companies won the award, with a total of more than 100 entries submitted. The winners of the ECOTECH-LEADER 2023 are to be announced this summer.

This April, TMK presented STZ's bioengineering project to the experts of the 2023 ECOTECH-LEADER Award



have dropped by

Over 15 years,

environment

STZ has reduced

its impact on the

**Emissions** from steel production

times

times

Waste water discharge has been reduced by times



02 (52) 2023



embrace a more water-conscious lifestyle, the concentrations of various chemicals are increasing. In addition, STZ regularly upgrades its core production operations and deploys new types of materials. When combined together, all this constantly changes the chemical composition of effluents, the concentrations of substances and the amount of wastewater."

Near-term plans include installing a local oil separator, introducing several other engineering solutions and overhauling the aeration station and biological treatment plant to further improve the quality of treated water.

### PURE METALLURGY

This year TMK's bioengineered effluent polishing system upgrade project has been nominated for the ECOTECH-LEADER National Environmental Technology Awards in the Construction and Operation of Treatment Facilities category. Sergey Alekseev, Chairman of the Expert Council of the national award, said: "The project is an excellent example of how the plant rationally uses its available resources to further enhance its impressive environmental performance and minimize environmental impacts. I certainly recommend this practice be rolled out at other Russian enterprises."

Last year, TMK already won the ECOTECH-LEADER award in the same category with its AQA project, which is in place at wastewater treatment facilities at two TMK production sites: AQA Genesis at Pervouralsk Pipe Plant (PNTZ) and AQA Crystal at Chelyabinsk Pipe Plant (CHTPZ).

The first of these, which required an investment of RUB 520 million, ensures environmentally friendly water recycling for PNTZ's pipe production facilities and thus minimizes river water withdrawal. The RUB 750 million AQA Crystal facility was designed to reduce CHTPZ's environmental impact by eliminating acidic wastewater discharges from industrial etching operations into Lake Shelyugino. YT





### Elena Podgornykh, Head of Environmental Safety at TMK:

«TMK runs comprehensive programs in a variety of areas: carbon footprint reduction, efficient resource use and lower resource consumption, as well as industrial waste management. At the same time, TMK is actively implements responsible water practices. We strive to not just consume water rationally, but also to reuse it to minimize discharges. For example, one of the Company's strategic goals is to develop water recycling systems at production facilities, thus reducing specific industrial water consumption and wastewater discharge.»

# ш EMEN



TMK HAS OPENED AN ADVANCED OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT CENTER AT VOLZHSKY PIPE PLANT (VTZ). THE NEW UNIT HAS CONSOLIDATED ALL RESOURCES REQUIRED TO COORDINATE INDUSTRIAL SAFETY MANAGEMENT AT THE PLANT. NEWLY LEARNED KNOWLEDGE AND SKILLS CAN BE TESTED IN THE CENTER'S DIGITAL SPACE.

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ccupying three floors of the pipe rolling shop's administrative building, the unit has been dubbed the Safety Invention Center. The Center features open-plan offices for its employees, meeting rooms, and conference rooms for comfortable communication as well as a 24/7 video surveillance room where operators analyze images from CCTV cameras across operations.

One of the premises has a virtual reality room housing the Safety Ground VR simulator, where employees can train in safe practices and take aualification tests.

The Center's design philosophy revolves around industrial safety, featuring bright colors and warning signs that can usually be seen on the shop floor. One of its halls houses a booth with modern protective clothing and accessories

Sergey Chetverikov, Managing Director of Volzhsky Pipe Plant, said: "TMK and VTZ are implementing a broad range of measures to address operational risks and embed innovative technologies in occupational safety. The launch of a cutting-edge Safety Invention Center brings the entire occupational health and safety management system at a major industrial enterprise to a fundamentally new level. The Center's future initiatives will maximize employee engagement while rendering our accident prevention efforts even more visible and effective."

VTZ had previously opened the Steel Safety Room, a multimedia room employing digital solutions to visualize occupational health and safety rules. Plant visitors can take a digital reality health and safety induction in the room, featuring a diorama display, surround sound, and auxiliary digital aids. The project uses a VR-enabled test and training system to detect violations and unsafe actions. People are immersed into a digital space to live through gamified dangerous situations and simulate their responses and potential

implications.

### ВИРТУАЛЬНАЯ **БЕЗОПАСНОСТЬ** ЭТО РЕАЛЬНОСТЬ



VTZ is a leader in occupational health and safety. The plant was awarded a corporate cup – TMK's Best OHS Organization in recognition of its top performance in this area in 2022.

Digital technology enhances the learning process while reducing potential injuries by bringing the training scenario as close as possible to real life. These modern methods engage more and more workers in creating a safe working environment.

Sergey Chetverikov commented: "We expect that all of our health and safety solutions and the new Center will continue to work toward our core goal – zero injury rate. People should come home from work tired, but always healthy."

### THERE IS NO LIMIT TO SAFETY

TMK consistently works to improve working conditions and eliminate the risks of work-related hazards. The Safety Day held on April 28 every year across all Company production sites is the culmination of these efforts. As part of the event, the Company's senior management carries out occupational health and safety audits across operations, with preparations conducted throughout the year, focusing on maximum involvement of plant employees. The Safety Day has helped boost employee buy-in for identifying and minimizing injury risks. The plant's employees see the actual outcomes of ideas suggested by them to improve the safety system and get more actively involved in these efforts as a result.

<image>

Over recent years, TMK's plants have built up vast experience in adopting innovative technology and digital solutions to improve their OHS systems. These include tiered OHS control systems to promptly and effectively detect and address deviations and breaches, smart video surveillance tools to track and quickly correct employee actions, and VR solutions to train and test employees' knowledge and skills.

The new Center is an excellent example of a modern approach to occupational health and safety at an industrial enterprise

> TMK consistently works to improve working conditions and eliminate the risks of workrelated hazards

**PRIMANTNKA BEGONAGN** 



This year, the audits focused on four key injury-prone areas: Fire Safety, Process Safety, Warehousing and Cargo Handling, and Exposure to Moving/Rotating Objects and Parts. Particular attention was paid to ensure people are ready to evacuate safely in case of fire, all necessary signage is readily available, all equipment and processes are operated in strict compliance with documents and requirements, cargo is placed carefully, below-the-hook lifting devices are serviceable, and other factors affecting safety in the workplace are all in order.

A map of preventive measures and a list of measures to further enhance industrial safety have been drawn up based on an analysis of walkaround inspections and employee feedback. These plans will be implemented during the year.

Other events timed to coincide with the Safety Day at TMK's enterprises included vocational skills competitions for OHS specialists, first aid trainings, presentations and master classes on the use of modern personal protective equipment, healthy food tastings, and a number of sporting and awareness raising events.

Boris Pyankov, TMK's Technical Director, said: "We are constantly looking for new techniques and tools to promote zero injuries at work and consistently implement the activities planned in the Comprehensive Occupational Health and Safety Program until 2027. The Company has also adopted sustainability goals, including goals related to safety. Our key objectives include achieving zero fatalities and reducing the injury rate by 25% from a 2021 baseline. We continue engaging with businesses on adopting and rolling out best practices. We empower employees to share experience across our enterprises by engaging them in audits. The zero injury goal is top of mind for us." **YT**  As part of the Safety Day, TMK's senior management carries out occupational health and safety audits across the Company's production sites

## 022 **BRIDGING THE PAST AND FUTURE**

BEING A RESPONSIBLE COMPANY IS ABOUT MORE THAN JUST SECURING A SUSTAINABLE PLANET FOR FUTURE GENERATIONS. IT ALSO INVOLVES LOOKING TO THE PAST TO PRESERVE THE HISTORY OF COMMUNITIES WHERE THE COMPANY OPERATES, FROM RESTORING A 19TH CENTURY BLAST FURNACE TO MAKING LITERARY LEGENDS COME ALIVE TODAY, TMK SETS A HIGH MARK.



"Beauty and history are all around us, and business must play its part in helping to preserve that heritage for future generations."





troll along the mile-long embankment of the Azov Sea in southern Russia's city of Taganrog and you will eventually encounter a bronze sculpture of legendary 20th century playwright and short story virtuoso Anton Chekhov.

Perched on a bench overlooking a scenic inlet, Chekhov is immortalized gazing toward faraway shores as the waves gently erode the shoreline's sand nearby. Visitors can snap a photo sitting next to the literary giant.

The cobblestone stretch is named in Chekhov's honor, and no wonder – the Taganrog native made a global impact in literature and the performing arts with his four major works, The Seagull, Uncle Vanya, Three Sisters and The Cherry Orchard, performed in theaters worldwide to this day. In addition to medicine (Chekhov was a physician by profession) and literature, the cultural icon dedicated his life to

The Severskaya Domna complex in Russia's Ural Mountains has been participating in the Night of Museums since 2016

The Russkaya Skazka (Russian fairytale) event in Polevskoy educates children about classical folklore. The exhibit is an illustration to a children's fairy tale in verse by Korney Chukovsky, one of the author's most famous children's works.

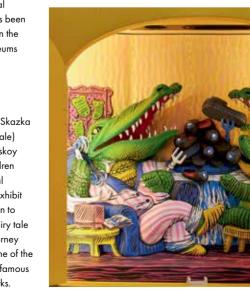
philanthropy and, specifically, helping the city where he spent nearly half his life. He dedicated over 2,000 books from his personal collection to help found the city's first public library, and together with his friend, the renowned 19th century artist Ilva Repin, arranged 40 paintings to be donated to the local art gallery from the then-Imperial capital of St. Petersburg.

Today TMK continues Anton Chekhov's charitable legacy in Taganrog through its local metallurgical plant, TAGMET (one of the region's largest employers). The Chekhov Embankment and sculpture were a gift to the city from TMK, which also arranged the planting of seedlings nearby that will one day blossom into a full cherry orchard along the Azov Sea coast. In 2008, when Christie's auction house in London put up a painting by legendary artist Nikolay Bogdanov-Belsky that had been looted from the Taganrog gallery during World War 2, TMK bought the work and returned it back to the original museum.

### A HISTORY OF STEEL

Last year far away from Taganrog in Russia's Ural Mountains, which bridge the geographical divide between Europe and Asia, TMK completed renovation of a unique museum complex unlike any other in the world. Its story dates back to the reign of Peter the Great in the early 18th century, when deposits of iron ore discovered near the village of Polevskoy would eventually put the entire region on the map of global economic production in the upcoming industrial age.

Today Polevskoy is home to TMK's oldest factory, Seversky Pipe Plant (which has a history going back to the 1730s), and the adjacent







Children enjoy traditional Russian teatime at the steel factory museum in Pervouralsk Severskaya Domna museum complex. After TMK modernized production facilities in the early 2000s, the company decided to convert one of the original factories from 1842 (equipped with a blast furnace from those times) into an educational hall for visitors. "In 2009 we introduced a new system of receiving guests at the plant, and the museum became one of the highlights. Visitors love being able to walk from our glorious past into the present. Active production sites are still off limits for ordinary guests, but the museum is open to the public. We've had over 100 thousand visitors," explains museum director Anna Trepalova.

In 2022, TMK unveiled 1.2 thousand square meters of new high-tech exhibition space for local artists and folklore. "TMK is actively involved developing industrial tourism. The regions where the company has factories are known for their traditions, outstanding history, and unique natural and industrial attractions. The company takes part in various events, such as the Night of Museums, to promote these traditions and histories. In 2023, a record number of guests visited the company's sites," added Trepalova.

Not far away from Polevskoy lie the cities of Pervouralsk and Chelyabinsk; both are located in the Ural Mountains region and are home to major pipe plants that TMK recently acquired. The Chelyabinsk Pipe Rolling Plant is home to Europe's largest shop making large diameter pipes (it's called Vysota 239) and offers tours to the general public

Today TMK continues Anton Chekhov's charitable legacy in Taganrog with an overview of the factory's history and the chance to meet with engineers on the ground. It's become a regular stop for tourists visiting the city.

In Pervouralsk, the factory's museum is the largest in town with over 10,000 exhibits and a thousand square meters of space used to tell the Ural region's rich history of metallurgy and industry. Modern technology allows guests to take a virtual tour of the factory and illustrate the critical role local industry played in shaping global events. Over 20 thousand visitors take advantage of the tours every year, which are completely free to the public, and the museum also functions as a community center by hosting various artworks, musical performances and lectures by local heroes.

### GLOBAL TO GRASSROOTS

Sometimes local historians are crucial to preserving a community's heritage. At TMK's Sinara Pipe Plant, located not far from Polevskoy in the city of Kamensk-Uralsk, a few years ago machinist Vladimir Sidorov began offering free walking tours focused on local history. The city's metallurgical plant played a critical role in preparing equipment for Vitus Bering's second expedition to Kamchatka (the Bering Strait, which separates Eurasia from North America, would later be named in his honor).

Mr. Sidorov became fascinated by his city's past as a child. "I used to wander around town, notice old houses and ask myself 'Why is this building located here? Who used to live inside?'" he explained. As an adult, he developed a tour that would cover everything from Kamensk-Uralsk's old train station to an abandoned fire depot on the outskirts of the Sinara Pipe Plant. The tours became so popular (he once had over 300 guests) that Mr. Sidorov and his wife entered a national competition for developing local tourism. This year they took 2nd place out of 1,500 applications. The Sidorovs have thanked TMK for its support of their initiatives and are grateful that the grant money will be used to renovate public spaces in Kamensk-Uralsk.

### **GENERATIONS OF PHILANTHROPISTS**

Meanwhile, back in Taganrog on the Azov Sea, some years ago TMK sponsored an event to bring art from around the world to the local gallery. Visitors could enjoy the works of Pablo Picasso, Salvador Dali and Mark Chagall without leaving their hometown – much in the spirit of Anton Chekhov's philanthropy over a hundred years ago.

"Beauty and history are all around us, and business must play its part in helping to preserve that heritage for future generations," explained Trepalova. "I'm proud to be at TMK, where modern industry, history and aesthetics all complement each other." **YT** 

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