

# TENGIZCHEVROIL

Fueling Progress



2022

Corporate  
Responsibility  
Report

**Corporate  
Responsibility  
Report**

**20  
22**

## TABLE OF CONTENTS

|    |  |
|----|--|
| 04 | PREFACE BY LEADERSHIP TEAM                 |
| 05 | OUR ACHIEVEMENTS IN 2022                   |
| 06 | ABOUT TCO                                  |
| 12 | TCO WAY                                    |
| 14 | POSITIVELY IMPACTING COMMUNITIES           |
|    | Egilik program                             |
|    | Community Investments Program              |
|    | Sponsorship and donation                   |
| 22 | MANAGING ENVIRONMENTAL PERFORMANCE         |
|    | Protecting people                          |
|    | Production process safety                  |
|    | Environmental protection                   |
|    | Environmental monitoring                   |
|    | Biodiversity                               |
| 40 | SUPPORTING KAZAKHSTANI CONTENT DEVELOPMENT |
|    | Local procurement and supplier development |
|    | Local content practices and requirements   |
|    | OEM localization                           |
|    | Technologies transfer                      |
| 46 | INVESTING IN PEOPLE AND CAPABILITIES       |
|    | Workforce development and trainings        |
|    | Social package                             |
|    | Workforce diversity and inclusion          |
|    | Digital culture                            |
| 54 | CONTACTS                                   |

## PREFACE BY LEADERSHIP TEAM



**Kevin Lyon**  
TCO  
General Director

**Tengizchevroil's (TCO) 2022 Corporate responsibility holds special meaning as we approach the 30th Anniversary of our company's presence in Kazakhstan.**

Reaching this incredible milestone, has been a remarkable story of investments, growth, and constant progress; not just for the industry, but for the people of Kazakhstan. TCO is honored to have played a part in this great story. Throughout this period, we have strived to meet our commitments to Kazakhstan, our partners, communities where we operate and employees.

It is hard to imagine that in 1993, the TCO's oil production was just 1 million tonnes. At the end of 2022, that production increased to 29,2 million tonnes, which represents approximately 34% of the Republic of Kazakhstan's (RoK) total crude oil production. Meanwhile, we achieved a 75% reduction since 2000, in total air emissions per tonne of crude oil produced. In addition, the Future Growth Project-Wellhead Pressure Management Project (FGP-WPMP) advanced to 97% total completion and we are finalizing the construction and systems completion phases.

These are truly impressive achievements that would not have been possible without the support from our partners and the Government of Kazakhstan and through the talent and dedication of our workforce.

Once again, our company has delivered strong performance in 2022, aligned with TCO values of conducting business responsibly and delivering results the right way. Despite the unexpected challenges globally and in the oil industry in 2022, we are proud of our workforce who have shown resilience and perseverance. They have made our One TCO family is even stronger and united in our purpose to create value for Kazakhstan. We continue to invest relentlessly in our people and by the end of 2022, Kazakhstani citizens held 94.8% of positions in TCO's base business compared to 50% in 1993.



**Konilkosh Suyessinov**  
TCO Deputy  
General director

We are pleased that in 2022, TCO continued to make a strong contribution to the country's economic progress, with \$14.5 billion of direct financial payments to Kazakhstani entities, including \$5.3 billion spent with local suppliers. Of note, the RoK Ministry of Finance awarded TCO the title of best taxpayer in the subsoil user category, among 50 top taxpayers in Kazakhstan. This award recognized TCO for being a conscientious taxpayer, for its impact on economic growth, and for its example as a fair, transparent, and competent business.

In 2022, our company continued to play a leading role in helping the RoK meet its growing demand for gas, for both the Kazakhstani petrochemical industry and domestic needs. In 2022, TCO supplied 87% of its produced sales gas to the RoK and 100% of its propane feedstock used by the petrochemical complex in Atyrau.

In 2022, TCO placed a high focus on the reliable supply of dry gas to local communities.

Our investments in the community are making a real difference in the lives of the residents of the region. Since 1993, TCO has invested over \$2.7 billion in social projects and programs in Atyrau Oblast for communities and employees. Through our voluntary EGILIK social infrastructure program with an annual budget of \$25 million, as well as our Community Investments Program of \$2.3 million, we positively impacted over 111,000 direct and indirect beneficiaries in 2022.

In conclusion, in this auspicious year, marking our company's 30th anniversary, we would like to express our sincere congratulations to the people of Kazakhstan and all the thousands of our workforce, who strive to work safely, day in and day out for the benefit of all our stakeholders.

## OUR ACHIEVEMENTS IN 2022

### Managing environmental performance



TCO gas utilization rate



Water reuse rate



Waste reuse/ recycling rate

### ● Fueling Kazakhstan's economic progress

Direct financial payments to the Republic of Kazakhstan  
**\$ 14.5 billion**

Goods and services purchased from Kazakhstani entities in 2022 – more than  
**\$ 3.7 billion**

Since 1993, TCO purchased goods and services from Kazakhstani entities totaling over  
**\$ 43.6 billion**

### ● Investing in our people



Kazakhstani personnel employed in the Base Business  
**94.8%** compared to 50% in 1993

compared to **50%** in 1993

Share of Kazakhstani managers and supervisors assigned to the Base Business  
**86.7%**

### ● Improve the wellbeing of communities where we operate

Since 1993, TCO has allocated more than \$2.7 billion to fund various Social Projects for the residents of Atyrau Oblast and employees.

More than 100 new social facilities were built.

The "Egilik" Voluntary Social Infrastructure Development Program Budget allocated for 2022 - \$30 million

Community Investment Program Budget - \$2.3 million for 2022

## The story of TCO

### A history of fueling progress

The Tengiz oil field, located in the western part of Kazakhstan, was discovered in 1979. Tengizchevroil was formed in April 1993 as a joint venture, with the Government of the Republic of Kazakhstan and Chevron Corporation as its original founding Partners.

Today, TCO is a partnership between:

|                       |                                     |                          |                     |
|-----------------------|-------------------------------------|--------------------------|---------------------|
| <b>50%</b><br>Chevron | <b>20%</b><br>JSC NC<br>KazMunayGas | <b>25%</b><br>ExxonMobil | <b>5%</b><br>Lukoil |
|-----------------------|-------------------------------------|--------------------------|---------------------|



### About the oil field

The areal extent of the Tengiz reservoir is large, measuring 20 kilometers (12 miles) by 21 kilometers (13 miles). Total recoverable crude oil in the Tengiz and Korolev fields is estimated to be 1.4 billion metric tons (11.5 billion barrels). The estimated oil in place in the Tengiz field reservoir is 3.1 billion tons (25 billion barrels). The Tengiz field is the world's deepest giant oil field, with the top of the reservoir standing at a depth of about 4,000 m (13,000 ft).

## LOOKING BACK AT HISTORY



**1979**

### Discovery of Tengiz field

Tengiz oil field, located on the west part of Kazakhstan, was discovered in 1979. On 18 December 1979, the first well in the field gave oil from the pre-salt formation at the depth of 4045 – 4095 meters. From beginning to mid-1980's, drilling activities were conducted intensively on the territory of the field, and more than hundred wells were drilled.

**1985** Tengizneftegas was formed Tengizneftegas Production Association was established in February 1985 to develop the giant field.



**1985**

### T-37 incident

In June 1985, there was a fire in the well T-37. The fire lasted more than 400 days and was extinguished with the assistance of specialists from Cameron, an American company.

**1986** Start of construction activities at Tengiz

In early 1986, with the coming of spring, construction works started at the oil field facilities. Specialists and construction workers from Western Germany, France, Canada and Hungarian People's Republic arrived at Tengiz. LURGI company from Germany participated in the design of the plant, the Canadian company LAVALIN and the French company LITVIN participated in the development of automated control systems for the plant and field, and the Hungarian company Vedepser received a contract for the construction of the plant.

**1991** Launching Tengiz oil and gas complex

6 April 1991 Engineer Boris Vasilyev and operators Abdulkhamit Artygaliyev and Gafurin Aubakirov launched the well T-8. Crude oil passed through the field gathering system, including the group metering station 15 - Central Field Manifold and Slug Catcher, with the first oil finally reaching the plant for further processing.



**1993**

### Tengizchevroil was formed

On April 6, 1993, following several rounds of negotiations, the then President of the Republic of Kazakhstan, Nursultan Nazarbayev, and the President and Chairman of the Board of Chevron Corporation, USA, Kenneth Derr, signed in Almaty, the Agreement on the establishment of the Tengizchevroil LLP. Together with the Tengiz field, the adjacent Korolev field became part of Tengizchevroil LLP.

## 1993 - 1998 Launch of Bonus Fund Atyrau program

A five-year program with a budget of \$50 million called Atyrau Bonus Fund, was established to develop the social infrastructure of Atyrau and the region. The main gas pipeline of 25 kilometers long, made it possible to start supplying the city with natural gas and was built at Tengizchevroil's cost under the Atyrau Bonus Fund program. As part of the Bonus Fund Atyrau program construction of bakery plant was in progress and repair and re-equipping of Atyrau oblast hospital was completed. In 1997, Tengizchevroil through the Atyrau Bonus Fund granted \$1 million worth of interest-free loans to small businesses and by 1998, the program was successfully completed, giving a new impetus to the socio-economic development of the region.

## 1997 First modernization of oil complex

In 1997, the "Debottlenecking" program to improve production efficiency was completed, which made it possible to increase the annual volume of oil production to 7 million tonnes. This paved the way for the next phase of expanding production capacity – the implementation of the Train 5 project and Program-12.

## 1999 Start of Egilik social infrastructure program

Tengizchevroil voluntarily developed and adopted, a new social and infrastructure program called "Egilik" (Kazakh for "benefit"). The program's initial budget at that time was \$4 million US, however Tengizchevroil successively increased the amount of investment to \$8 million US annually until 2003 and \$12 million over the next three years. From 2009 through 2010, the annual budget of the "Egilik" program was \$20 million; since 2013, Tengizchevroil has allocated \$25 million to fund projects under the "Egilik" program. Residents of the Atyrau region began receiving gas from the Tengiz field.



## 2001

### Launch of CPC pipeline

On 25 March 2001, Tengizchevroil carried out the first trial loading of crude oil into the 1,480 km long CPC pipeline, which connected the Tengiz field to the Russian marine terminal in Novorossiysk.

## 2001 - 2008 Construction of Second-Generation Plant and Sour Gas Injection complex

Implementation of the first expansion project in the history of Kazakhstani oil industry was started in 2003 and successfully completed in 2008. The expansion project doubled crude oil capacity and helped the Kazakhstani company to become a leading enterprise in the international oil industry.

## 2006 - 2008 Annual budget of the Egilik program is \$12 million



## 2008

### Commissioning of Second-Generation Plant

SGP/SGI complex was put into operation by RoK President Nursultan Nazarbayev on 5 June 2008. This \$7 billion project, is the largest in the Commonwealth of Independent States. "Its capacity will allow Kazakhstan to produce 25 million tonnes of crude oil per year. In addition, using advanced technology and equipment will considerably decrease the environmental impact», the Head of the State said.

**2009** Annual oil production reached up to 25 million tonnes, achieving SGP/SGI capacity in 2009, i.e., almost doubling the plant capacity.

**2009 - 2012** By this year budget, the Egilik program budget is \$20 million. Over this period of implementation of the Egilik program, over \$150 million was allocated for various infrastructure projects in the Atyrau oblast.

**2010** Crude Oil Tank Farm Project is completed



## 2011

**TCO is awarded with Paryz Grand Prize**

In 2011, Tengizchevroil was awarded with Republican level “Paryz Grand Prize” for social responsibility. The Awarding Ceremony was hosted in Astana, where President of Kazakhstan N. Nazarbayev delivered the prize to TCO General Director Tim Miller.

**2012** TCO produces 2 billion barrels of crude oil since 1993

**2013** TCO celebrates 20th anniversary since its formation

Over the past 20 years TCO’s contribution to social programs and projects in the Atyrau oblast exceeded \$800 million. TCO’s direct financial payments to the Republic of Kazakhstan were more than \$77 billion.

**2013** Tengizchevroil increases annual Egilik budget to \$25 million

TCO wins several awards: “Company of the year in petroleum industry” – “Korgan” National industrial contest; Laureate of Corporate Social Responsibility award at the 8th KAZENERGY Eurasian Forum. “TCO Newsletter” is recognized as the best regional corporate newsletter by the ENERGY TRIBUNE-2013.

**Sulphur eliminates sulfur at Tengiz**

## 2015

In late October of this year, Tengizchevroil formally reported to the government that the company offloaded the last shipment of bulk sulfur from the sulfur pads – two years ahead of schedule.



## 2016

**FGP-WPMP Final Investment Decision was announced**

On July 2016, TCO Partners announced the Final Investment Decision on the Future Growth Project-Wellhead Pressure Management Project (FGP-WPMP). This was a significant milestone for TCO and the Republic of Kazakhstan.

**2017** TCO produces 3 billion barrels of crude oil since 1993.



**2018** TCO celebrates its 25th Anniversary since formation

**2019** At the peak of the FGP-WPMP construction, about 90,00 Kazakhstanis work at the Tengiz field.

**2019** The program for vocational training vocational for residents of Atyrau and Mangistau regions was launched and implemented under an agreement between Akimats and Tengizchevroil.



**2020** FGP-WPMP's last Pre-Assembled Unit (PAU) was safely delivered to the Tengiz field, for further reassembly.

**2020 - 2021** ТШО выделил более 18 млн долларов США (7,7 млрд тенге) на поддержку населения в продолжающейся борьбе с COVID-19, включая закупку медицинского оборудования и расходных материалов для Атырауской области.

**2021** Randstad Employer Brand Research, независимая международная компания, признала Тенгизшевройл лучшим работодателем 2020 года в Казахстане.



**2021** Tengizchevroil (TCO) reached an incredible milestone in its history, by surpassing 500 million tonnes (4 billion barrels) of crude oil production since 1993.

**2022** Launch of the Integrated Operations Control Center (IOCC), a state-of-the-art facility that integrates the management of all TCO's production plants into one control center and operating model

# THE STORY OF TCO

## Fueling Progress

## Who We Are

We are a leading company that produces oil, gas and associated products that fuels the modern economy. Our history is closely interlinked with the rise of an independent Kazakhstan.

## What We Do

We safely and reliably produce products that heat homes, fuel cars, support businesses and benefit society, and we make a significant contribution to the economic progress of the Republic of Kazakhstan and Atyrau Oblast where we operate.

## What We Believe

We strive to operate in a safe, reliable and environmentally responsible manner and our TCO Way values of Diversity and Inclusion, High-Performance, Integrity and Trust, Partnership and Protecting People and Environment, define us and guide our actions in delivering results. We operate in a socially responsible manner and are committed to investing in the communities where we operate and in the well-being of our employees. We believe that sustainable local companies are beneficial to the economy and society and we support businesses to help them enhance their capabilities and to prosper.

Our primary purpose is to create value for the Republic of Kazakhstan, our four shareholders, the communities where we live and operate and ourselves. We are proud to contribute to the country's economic progress and future – we are building a new legacy for generations to come.

## Why We Do What We Do

## How We Do It

We conduct our business responsibly, we deliver results, the right way and we always strive to be the best at getting better. We differentiate our performance through our people - our diverse and inclusive workforce, working as one focused team, as well as through technology, digitalization, innovation, and functional expertise. We build respectful, trusting, collaborative and productive relationships with government, our shareholders, communities, business partners, customers and each other.

## Where We Come From

We respect the history, traditions and culture of Kazakhstan. We are grateful to the early pioneers for their hard work and dedication to discover and develop one of the world's most technically-challenging oilfields. They left a strong foundation for future generations.

## Where We Are Going

We have embarked on the next major expansion of the Tengiz oil field. FGP-WPMP is a state-of-the-art project that will create a legacy of a trained skilled workforce, new facilities, technology transfer through partnerships between Kazakhstani and international companies, and upgraded infrastructure in the region. FGP-WPMP is a landmark project for the nation that will deliver the promise of a world-class petroleum resource to future generations of Kazakhstanis.



# We are TCO

## Mission

Our mission is to create superior value for the Republic of Kazakhstan, our shareholders and employees

## Strategies

Our strategies guide our actions to deliver industry leading results

## The TCO Way

### Getting Results the Right Way

The TCO Way explains who we are, what we believe, how we achieve our mission and where we aspire to go.

It establishes a common understanding of our values and behaviors not only for us, but for all who interact with us.



## POSITIVE SOCIAL IMPACT ON THE REGION

TCO's social impact initiatives aim to stimulate the full potential of people in Atyrau Oblast communities. TCO strives to empower people and help improve access to opportunities in healthcare, education and social entrepreneurship opportunities.

TCO invests in Atyrau Oblast communities through two voluntary programs, "The Egilik social infrastructure program", and the "Community Investments Program (CIP)" as well as sponsorships. The Egilik program is focused on the construction of social infrastructure (kindergartens, schools, parks, etc.), while the Community Investments Program is aimed at improving the quality and accessibility of health care, education, and development of social entrepreneurship in Atyrau oblasts. Since 1993, TCO has spent over \$2.7 billion to finance various social programs for residents of the Atyrau Oblast and TCO employees.



### • Egilik program

Within the framework of Egilik, the company has built more than 100 socially significant facilities, such as schools, clinics, kindergartens. Egilik was launched in 1998 with an initial budget of \$4 million, and today TCO spends \$25 million annually on the program. TCO has created thousands of new jobs through the construction and maintenance of new facilities, for example, each kindergarten creates about 40-70 jobs for teachers, nurses, and other employees.





### List of Egilik Projects, 2022

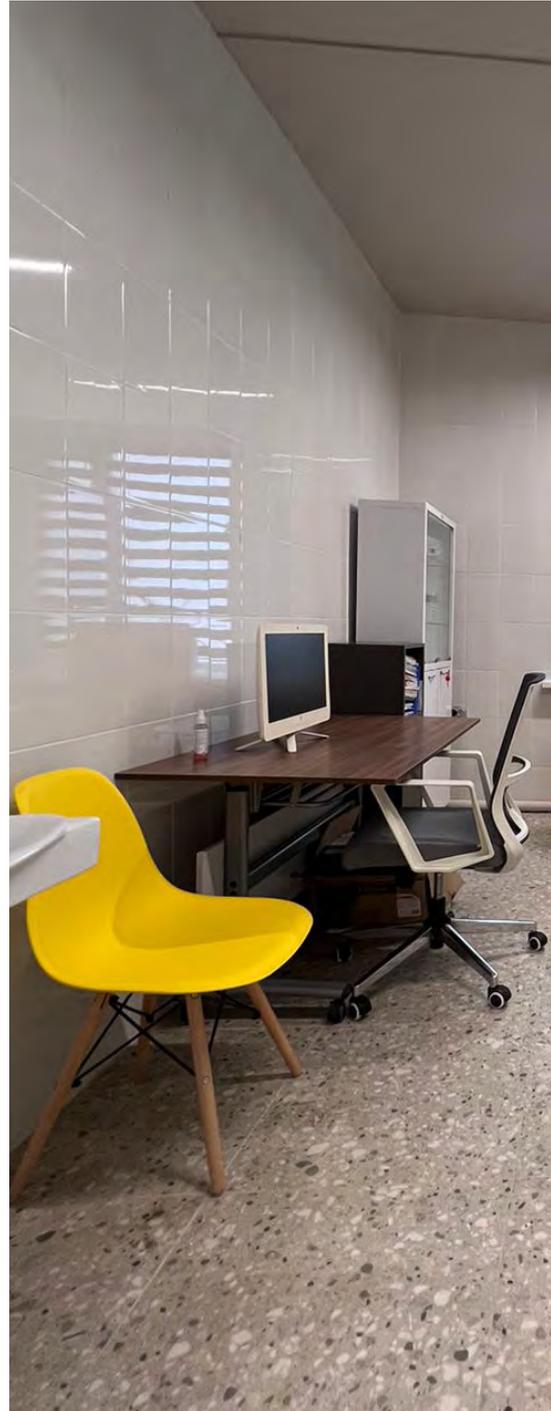
| Projects   | Project start year | Project completion year |
|--|--------------------|-------------------------|
| 3000-seat Central Stadium in Kulsary                         | 2021               | 2022                    |
| 160-seat kindergarten in micro district Koktem               | 2021               | 2022                    |
| 160-seat kindergarten in micro district Zhuldyz              | 2021               | 2022                    |
| Purchase of medical equipment for Atyrau region              | 2022               | 2022                    |
| Additional medical equipment for 200 bed Hospital in Kulsary | 2022               | 2022                    |
| Central District Hospital in Kulsary                         | 2020               |                         |
| 350-seat school Annex for Tuschukudyk village                | 2021               |                         |
| Baibakty Monument in Dossor                                  | 2022               |                         |
| 300-seat school M. Zhumabayev in Atyrau                      | 2022               |                         |

• Community Investments Program

TCO's Community Investment Program (CIP) was launched in 2010. It is aimed at supporting education, healthcare, participation of community members in the volunteer movement as well as economic development.

Within the framework of this program, 108 projects were implemented between 2010-2022 for a total amount of about \$14 million. The CIP budget in 2022 was \$2.3 million and positively impacted over 111,000 direct and indirect beneficiaries including children, adults, pensioners, low-income families, large families, disabled children and many other representatives of the population of Atyrau Oblast.

CIP Projects are selected based on TCO business goals and the results of the Community Needs Assessment research of the population in Atyrau Oblast and Borankul village, Mangystau Oblast. A Community Needs Assessment (CNA) is an independent study aimed at identifying the most important social, economic and environmental needs within a community and exploring ideas on how to solve them. Projects are selected in a transparent manner by TCO's Community Investment Council and includes representatives of various departments. This process allows the company to provide grants to non-profit organizations in a fair manner (individuals or commercial organizations are not considered).







- STAGE 1** EXAMPLES OF SELECTION CRITERIA FOR PROJECTS:
- The project is not for individuals
  - The project does not support a specific commercial business
  - The project does not imply sponsorship of sports teams
  - An NGO is not a military, political or religious organization
  - The project is planned within CIP geography - unless this project is of national importance
  - The project is planned within the framework of one of the CIP topics
  - The budget does not cover only trips or fees for participation in competitions
  - The project scope does not cover the usual operating costs for government agencies
  - The project is not planned for the construction of infrastructure facilities that can be covered under Egilik program
  - The project scope and budget do not imply only purchase of some items
  - The main part of the budget is not for Turnover

- STAGE 2** EXAMPLES OF SELECTION CRITERIA FOR PROJECTS:
- Supporting the needs and priorities of the local communities
  - Feasibility
  - Potential development
  - Sustainable development
  - The project is subjected to evaluation and control
  - Justification
  - Demonstrating high potential to achieve success
  - Focus on innovation and ability to implement project remotely (online format)
  - 2023 social projects selecting process

**Deadlines:**

- June 2023 - expression of interest by NGOs to participate in CIP (e-mail newsletter)
- July 2023 – request and receipt of proposals for social projects (e-mail)
- August-September-October 2023 – study and evaluation of proposals in CIP Council according to TCO selection criteria
- November – December 2023 - obtaining internal permits and work on sponsorship contracts
- December 2023 - announcement of successful (selected) offers
- January 2024- staged financing and execution of projects and programs

## The list of 2022 Community Investments Projects



**NGO:** Kazakhstan Association of Family Physicians (KAFP).  
**PROJECT:** Strengthening primary care services and access in Zhylyoi



**NGO:** Eurasian Foundation of Central Asia (EFCA)  
**PROJECT:** Public Spaces in Zhylyoi district and Borankul



**NGO:** Eurasian Foundation of Central Asia (EFCA)  
**PROJECT:** Public Spaces in Atyrau



**NGO:** Biz de Adambyz  
**PROJECT:** Effective rehabilitation of people with disabilities



**NGO:** Atyrau. Small Country  
**PROJECT:** Horse is the best friend



**NGO:** Eurasian Foundation of Central Asia (EFCA)  
**PROJECT:** “Zharkyra” Social entrepreneurship program in partnership with Social programs and innovations fund



**NGO:** SEZUAL  
**PROJECT:** Braille-alphabet simulator



**NGO:** Private Fund named after academician Z. Kabdolov  
**PROJECT:** Kazaksha Saira!



**NGO:** Public Foundation “Personal Growth Integrity”  
**PROJECT:** Vocational Counseling - Conscious Choice of Profession



**NGO:** Atyrau. Small Country  
**PROJECT:** Hippotherapy in Kulsary



**NGO:** Public Association of psychologists «Oi-Sana»  
**PROJECT:** Opening of the Montessori Special Education Center for children with special needs



**NGO:** Yntymak Atyrau NGO  
**PROJECT:** Community Development Program «Yntymak»



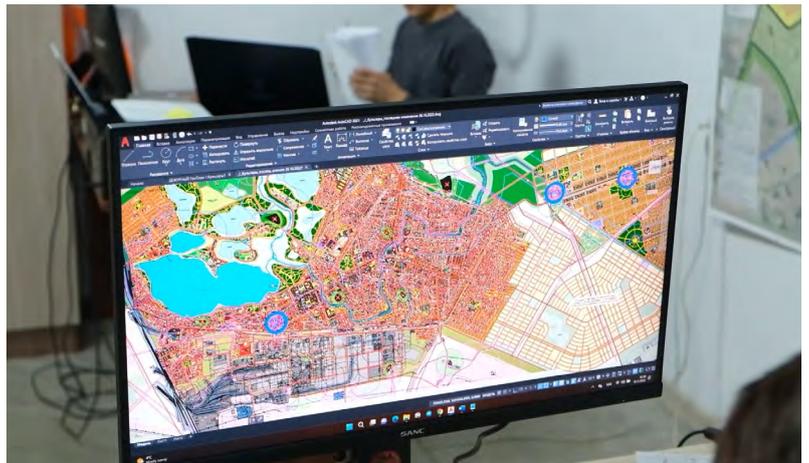
**NGO:** Eurasian Foundation of Central Asia (EFCA)  
**PROJECT:** «Algyr NPO Development Program»



**NGO:** ALE «Petrocouncil»  
**PROJECT:** Training for entrepreneurs on how to do business better during a pandemic, as well as training for unemployed on start-ups

• Sponsorship and Donations

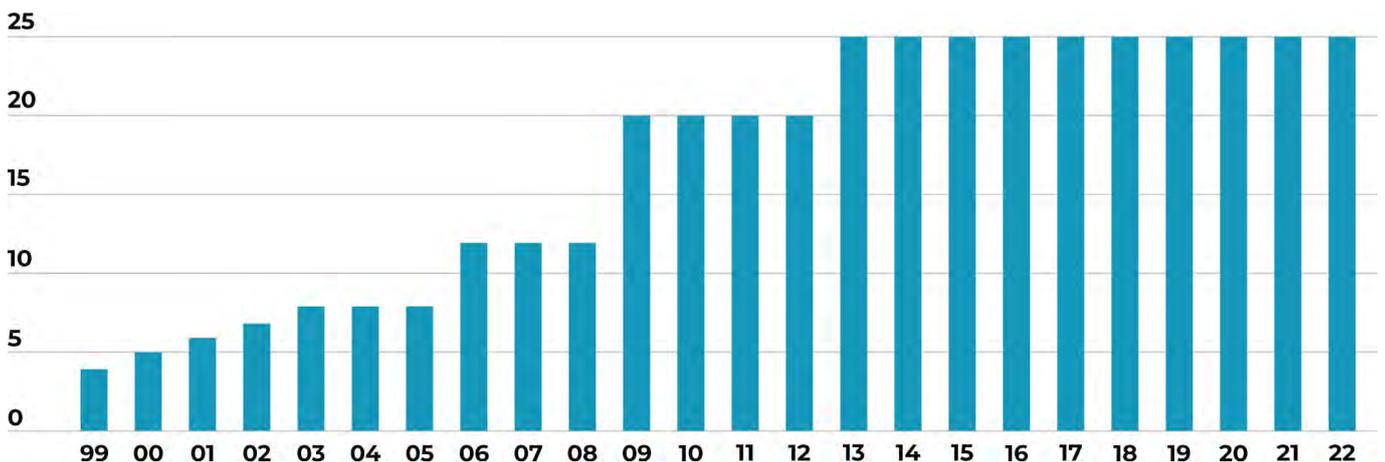
TCO annually allocates funds to support special requests for the benefit of residents of Atyrau Oblast. It should be especially emphasized that since the main activity of the company is concentrated in the Zhylyoi region, a significant part of the funds was directed to the implementation of projects in this region. Among these are anti-flood activities along the Kursai River, donations of GPS equipment, as well as the organization of a sports tournament for people with disabilities. Moreover, veterans and pensioners of the Zhylyoi region received vouchers for 2 weeks to the Atyrau Sanatorium.



Tengizchevroil, from its foundation, has always paid special attention to the younger generation, allocating funds for the development of education and healthcare, and the creation of places for children to spend their leisure time. And it is very symbolic that in 2022, it was declared the year of children in Kazakhstan, and a number of wonderful projects were implemented. So, physics and biology classrooms were equipped in the regional special boarding school No. 3 for children with speech disorders, as well as the sensory room for special pupils of the regional center for the provision of special social services No. 3.



Egilk budget 1999 – 2022 (in US\$ million)





***Lyazzat Tulepova*, director of the regional special boarding school No. 3 for children with speech disabilities:**

“This year, the Tengizchevroil team equipped the physics and biology classrooms for our children who need a special approach to learning. Thanks to this equipment, our special children carry out laboratory work and studied the animal and plant world with great interest. And this is not the first gift or only from Tengizchevroil to our school. We are grateful to the company for such support of our children”.

***Anar Kayupova*, director of the center for the provision of special social services No. 3:**

“There are currently 72 children in the regional center for the provision of special social services #3. Our teachers are engaged in difficult, but very important correctional work with special children. The equipment in our sensory room was already outdated and incomplete, and now, thanks to TCO, we have new and modern equipment. Children will enjoy learning in this room. We are grateful to TCO for supporting our special children”.

In addition to the implementation of targeted projects, funds raised during a number of charity events and programs initiated by TCO employees within the framework of the corporate volunteer movement are directed to support orphans and children of other socially vulnerable categories.

## MINIMIZING ENVIRONMENTAL IMPACT



Protecting  
people



Production  
process safety



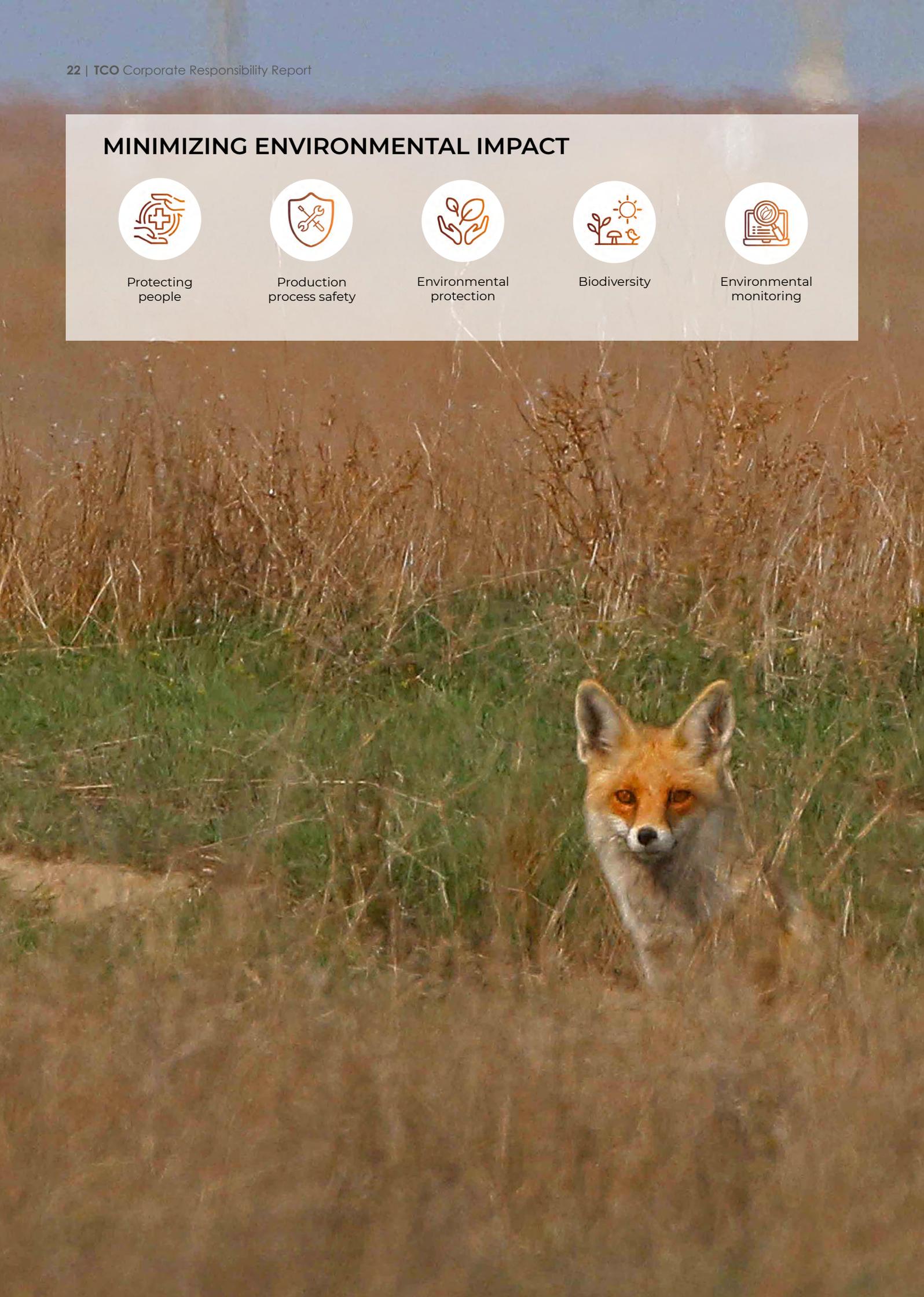
Environmental  
protection



Biodiversity



Environmental  
monitoring



## PROTECTING PEOPLE

TCO's work is guided by two key principles: do it safely or not at all and there is always time to do it right. Every employee of TCO and its Business Partner companies is responsible for making sure that work can be safely started. Each person has the right to temporarily suspend or completely stop any work if unsafe behavior or conditions are observed. The TCO Safe Work Practices Management Group, together with other teams, ensure that Occupational Safety and Health (OSH) guidelines and procedures are continuously implemented and maintained.

The execution of the safety labor requirements by employers and employees is the foundation for developing injury free culture and preventing injuries.

TCO has developed and implemented various processes, procedures, and work programs for monitoring working conditions in Occupational Hygiene:

- Occupational Hygiene Industrial Control Program at TCO facilities
- Industrial Control Program for Ventilation and Air Conditioning Systems in Tengiz
- Potable Water Safety SP-36
- Industrial Control Program Potable Water Quality Monitoring in Tengiz and Atyrau
- TCO Food Safety Standard
- Program of Industrial Radiation Control at TCO Facilities



### Ensuring food safety

To protect health, prevent food-related diseases, and to call attention to ensuring food safety, a number of events were organized in Tengiz and Atyrau in 2022, as part of food safety week dedicated to the World Food Safety Day: round tables, seminars, sports events, contests and quizzes, the release of posters, booklets, brochures, newsletters.

The Industrial Relations Department hygienists' group, regularly holds online meetings in the "Round Table" format, on food safety, which is attended by representatives of facility owners, business partner companies providing food services in Tengiz and Atyrau, employees of TCO OE/HES department.



### Industrial Control of Potable Water Quality Monitoring in Tengiz and Atyrau

The industrial control program establishes procedure for implementation of:

- Of industrial control by Facility Owners/Business Partners at potable water supply centralized and decentralized systems used for utility and drinking purposes, WTP/WTU operation at TCO facilities.
- Water treatment and water distribution processes.
- Potable water quality at water intake and outlet points in WTP/WTU going to the distribution system, and at water consumption points (installed control points).
- The Program determines: levels of responsibility of all industrial control participants, list of positions of employees subject to medical examinations, hygienic training and certification, mandatory availability of Personal Medical Records (hereinafter Blue Books), a list of monitored parameters, test methodology, control points and sampling frequency, a Contingency Plan.
- In 2022, several online meetings were held in Round Table format with facility owners and business partners operating potable water facilities in Tengiz and Atyrau, TCO OE/HES department employees.



## PRODUCTION PROCESS SAFETY

### Emergency response drills

TCO conducts emergency response training sessions, drills and exercises as required by the RoK Civil Protection Law to make sure that personnel are prepared to perform their functions and responsibilities in such situations.

**The following are the drills that were successfully carried out at all Tengiz facilities under TCO's operational control:**

- 301 emergency response drills were conducted with the involvement of Facility On-scene Response Teams (ORT) and TCO Emergency Response Team (ERT) (with 4 more drills in addition to the approved schedule);
- 19 exercises were conducted during which Level 2 Emergency Management Teams (EMT), ORT and ERT were present and engaged at the Incident Command Center (ICC).

### Emergency response trainings

In 2022 ICS-220 and ICS-300 trainings were arranged for almost 600 TCO employees.

The purpose of these training sessions was to teach Incident Commanders and EMT members on effective ICS use to properly manage initial response and ensure emergency containment and elimination. During ICS-220 sessions, EMT members had a chance to demonstrate teamwork skills, do some practical exercises on proposed emergency scenarios, get familiar with digital information displays. They learned how to fill out ICS forms to ensure effective emergency management and supervision, how to ensure safety at the incident scene, how to arrange and run on-site response operations, as well as to maintain efficient communication and cooperation.

Knowledge and skills obtained during these training sessions will help employees to ensure response and quick emergency and crisis elimination operations by utilizing safe and effective methods.

## ENVIRONMENTAL PROTECTION

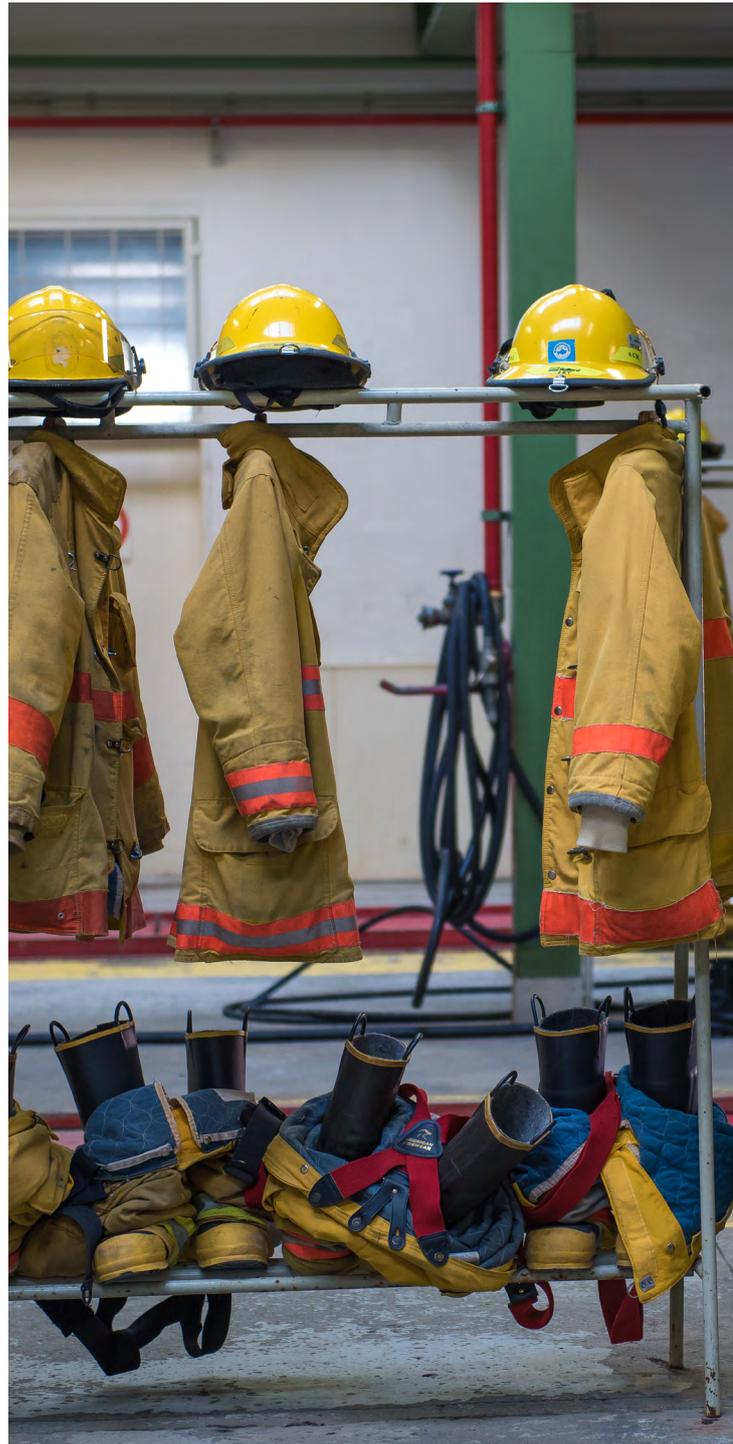
TCO strives to operate in a safe, reliable, and environmentally responsible manner, in accordance with the TCO Way company values. In 2022, TCO remained focused on air protection, continuing to find ways to reduce greenhouse gas emissions, rationalize use of water resources, protect subsoil and land, carefully manage waste, and raise environmental awareness. TCO continues to make significant investments in projects and activities demonstrating our commitment to maintaining our leadership in environmental protection and corporate responsibility.

### Air protection

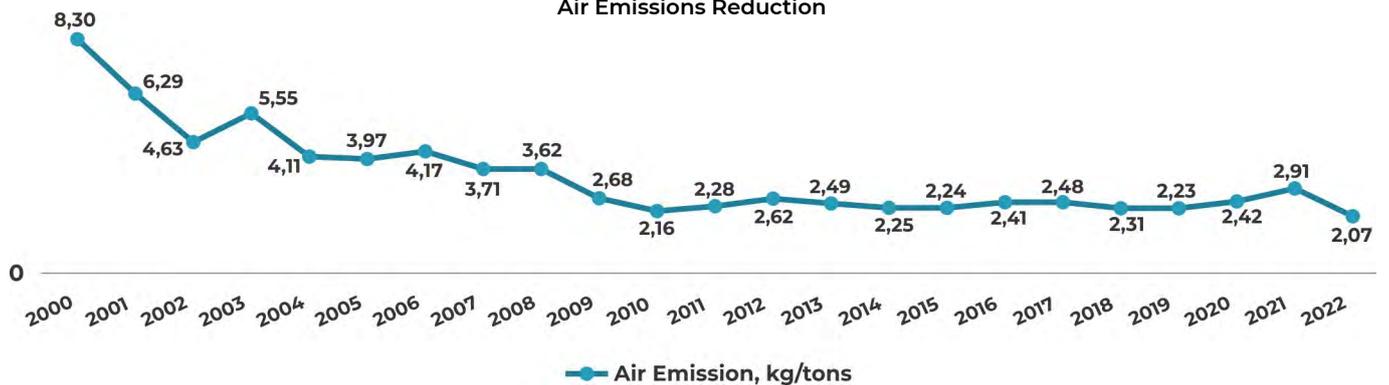
TCO has implemented a number of emission reduction projects over the last 20+ years to reduce the environmental footprint. The company continues to reduce its air emissions intensity from operations through investments in technology projects and modifications to operating procedures. Since 2000, the company has achieved a 75% reduction in the air emissions per each tonne of crude oil produced.

TCO has implemented a variety of planning and processing changes to ensure safe operations at the two existing Plants (KTL, SGP). These changes are focused on improving and maintaining the reliability of equipment. The following are examples of projects that were implemented in 2022:

- Resuming the use of Contactor (F-1522) at the KTL’s Demercaptanization Unit (DMC) enabled us to reduce air emissions from the Thermal Oxidizers of the DMC Unit by 50%.
- Modifying our C-502 burners so that we can increase air flow to the burners results in a corresponding decrease in CO emissions from the KTL U-500.



Air Emissions Reduction



### Gas flaring reduction

The gas flaring system is a critical device for ensuring safety at oil and gas processing plants worldwide. TCO must utilize the flare systems during equipment maintenance, repairs, and start-ups, or during process upsets resulting from technical malfunctions. The flare systems are used for ensuring safe operation of equipment and protection of personnel as required.

TCO has achieved gas flaring reductions across our Tengiz operations in 2022 through the following mitigation measures:

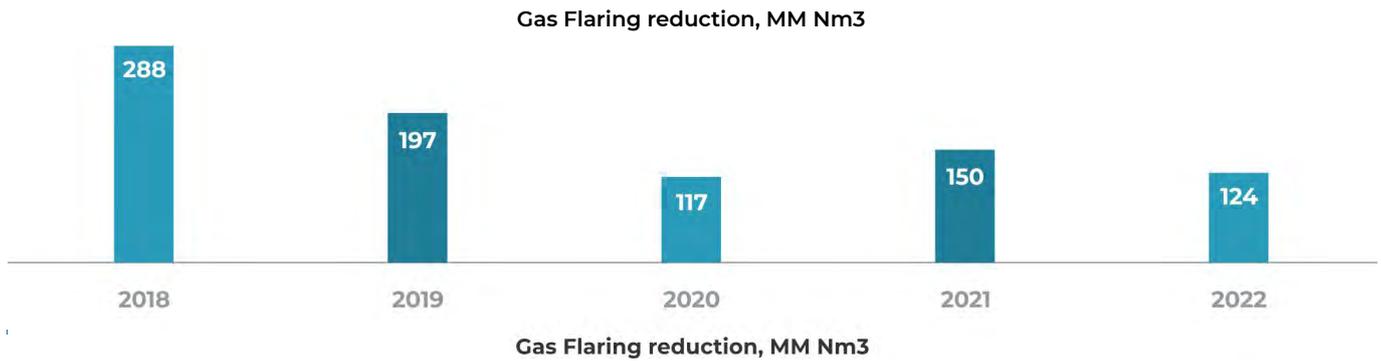
#### At the KTL plant:

- Controller optimization to reduce ethane flaring events - The controller was optimized to effectively cut the feeds and prevent pressure increase at F-703.
- As part of the 2022 Turnaround:
  - Mechanical modification of piping in the propane purification unit allowed for quick on test propane production, which results in less flaring during turnarounds.
  - Optimization of shutdown procedures allowed for the return of refrigerant propane back to the system, instead of flaring.

#### At the Second-Generation Plant (SGP):

- Modifications made in the demercaptanization unit process enable operators to have an automated process. As a result, flaring of the gas is reduced during possible operational processing failure.





### Managing greenhouse gas emissions

Protecting people and the environment remains TCO's number one priority. Improving emissions performance is not new to the company and we believe that operating our facilities in a safe and reliable manner as well as improving our operational performance, are key enablers to minimizing our environmental footprint.

In 2022, TCO continued to advance lower carbon initiatives through the advancement of the company's lower carbon strategy, with a focus on two main areas: operational efficiencies and selected capital investments.

A few projects of note are:

- Flaring: In 2022, TCO reduced flaring volumes by 57% compared to have declined compared to 2018 (5 years ago).
- Methane reduction: At crude tank farm ('CTF'), we are executing a project to replace the natural gas blankets in the tanks with nitrogen, which will reduce methane emissions from the CTF to almost zero.
- Operational efficiencies: Changing the mode in which the power and steam generators operate at the Second-Generation Plant from cold air to turbine exhaust gas mode has both increased reliability and reduced greenhouse gas emissions by approximately 165,000 tons per year.

TCO continues to seek out opportunities to reduce the emissions in our operations cost-efficiently while maintaining our operational reliability and meeting our commitments to the Republic of Kazakhstan.

### Rational use of water resources

TCO recognizes the high value of fresh water, which is considered as an essential resource. TCO implements water conservation programs that are focused on reducing the consumption of the water coming from the Magistralnyi Vodoprovod (MV) and increasing the efficiency of its treatment for water reuse.

To minimize our use of fresh water and reduce discharged wastewater volumes, a closed circulation water supply and water reuse systems are implemented on the existing facilities. In addition, organizational measures, such as water saving campaigns and reminders for workforce, take place to promote rational use of water resources.

In Tengiz, treated domestic wastewater from the Wastewater Treatment Facility (WTF) moves to the Water Recycling Facility, where it undergoes secondary treatment by applying reverse osmosis technology. As a result, high quality treated water is produced which is used for operational purposes. In addition, the processed water from the Sulfur Recovery Unit is reused for operational purposes.

Another great example of effective water management is the reuse of non-contaminated water, which is generated from dewatering operations upon construction of facilities and execution of hydrotests on pipelines, vessels, apparatus, and tanks, that is performed as part of the Wellhead Pressure Management Project (FGP-WPMP) implementation.

Moreover, during the warm season, after backwashing of filters at the Wastewater Treatment Facilities (WTF), the processed water is reused for irrigation of green vegetation at the Rotational Villages.

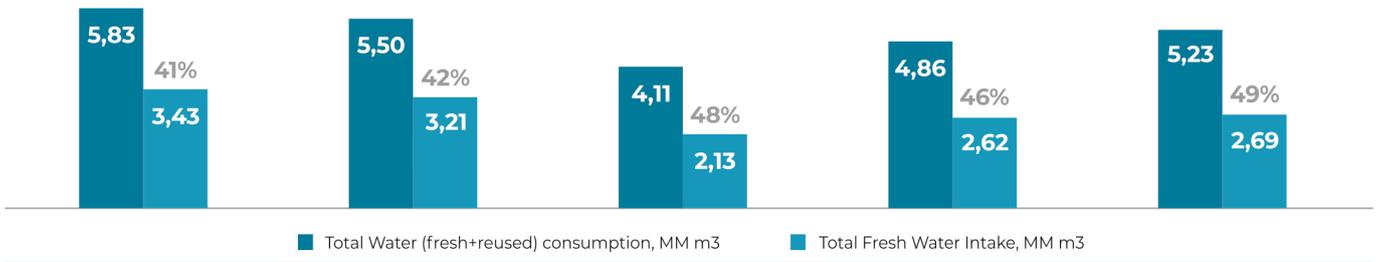


TCO has been continuously executing campaigns to improve the culture of water resources conservation and rational water use among the TCO and Contractor companies' employees through distribution of newsletters and installation of low water consumption equipment, as well as through installation of metering devices that enable conservation of water resources.

Due to the deployment of modern technologies that applies in the water treatment processes, along with the activities above, TCO recycled and reused 49% of its wastewater. This has significantly reduced our need for freshwater from the Magistralnyi Vodoprovod.



Rational use of water resources, MM m3



### Effective approach in waste management

Tengizchevroil is committed to continuous improvement in waste management practices. In 2022, TCO managed 63 types of wastes generated as part of the company's production activities and the associated infrastructure, and more than 35 of these waste types underwent additional waste processing by both the Company and Third Parties.

In its activities, TCO strives to ensure the safe management of waste, while promoting the ideas of minimizing waste generation and increasing the volume of waste recycling, developing local capacity for waste processing and applying modern and improved waste management technologies. For this purpose, the TCO Waste Reduction, Reuse, Recycling Program was developed, aimed at reducing waste generation, as well as exploring other opportunities to increase recycling and reuse. At our production sites, in housing camps, and at other TCO facilities, special containers with color coded marking have been installed to separate waste by type directly at the place of their generation in order to efficiently collect all waste. All generated wastes are collected and transported to the Tengiz Eco Center (TEC) facility, which is our «hub» for managing the industrial and domestic wastes. TCO implements various measures to give waste a second life whenever possible. In 2022, 63% of all generated waste in TCO was recycled and re-used.





### Waste Management Forum

On September 20, 2022, a Waste Management Forum was held by TCO, with broad external participation.

The main goal of the forum was to raise awareness of the upcoming bidding for rendering Waste Management Services at Tengiz, and to attract a wider range of Kazakhstani companies for participation in the bidding process. Significant scope was focused on attracting a broad audience, sharing information about TCO and the specifics of Waste Management in Tengiz, identifying the needs vs. the expectations, and addressing the key issues during the Business-To-Business session. More information about the forum can be found in Kazakhstani Content Development section.

### Land Reclamation

Development and execution of construction and installation works in Tengiz may result in some disturbance of the integrity of soil surfaces. It is stipulated by the legislation of the Republic of Kazakhstan that the operator must implement measures to protect the environment, improve the landscape development and provide the rational use of land resources. One of such measure is the reclamation of disturbed and lands.

One of the important milestones completed in 2022 was the recultivation of land as part of the Field Site Remediation Project (FSRP). As a result of this project, the land reclamation was executed at eight land plots, with their total area consisting of 1,64 hectares, and 19,700 tons of soil had been transferred for further waste treatment at 3rd party company, approved by TCO.

Successful implementation of this scope of work within the FSRP 2022 enables TCO to meet its responsibilities under the RoK environmental legislation and improve Tengiz field environmental performance.



Before Land Reclamation:



After Land Reclamation:

## BIODIVERSITY

The protection and conservation of biodiversity is an essential component of sustainable development for TCO operations. At different stages of operational activities, such as design, construction activities and production operations, TCO implements biodiversity conservation measures that range from prevention and minimization of environmental impacts to impact mitigation activities and projects. This includes ensuring all construction activities occur within the limits of our land allotment, as well as permitting vehicle traffic along designated roads.

Overhead Power Lines are recognized as a potential source of impact on birds, including specially protected bird species. To mitigate this risk, TCO conducts a survey to assess the impact of overhead power lines on birds. Should risks to birds be identified, the overhead power lines will be equipped with special insulators to prevent electric shocks.

To raise awareness of personnel and other stakeholders about the local flora and fauna, an illustrated, trilingual guidebook was prepared to showcase the diversity of flora and fauna at TCO's Area of Operation.



Within TCO's area of operation, there are several rare and endangered wildlife animal and bird species. In fact, some bird species use the Tengiz area for nesting, so as part of our pre-construction activities at FGP-WPMP, and while construction activities are underway, we perform surveys and observations of the fauna to understand and mitigate potential risks to the local biodiversity.

TCO implements a unique bird nest management program during the breeding season to conserve nests and reduce the risk of any delays in the Project's Schedule. From the moment when an active nest is identified at the construction site through to when the chicks hatch; protection measures are implemented to limit the impact on the nest and eggs, including suspension of the construction works if necessary. This program has resulted in multiple successful hatches.



In the framework of FGP-WPMP Project's implementation, TCO supports funding a conservation project focused on the creation of breeding conditions for a critically endangered bird, the Sociable Lapwing (*Chettusia gregaria*). The Sociable Lapwing is listed in the International Union for Conservation of Nature (IUCN) and the Republic of Kazakhstan Red Book as a critically endangered species which breeds almost exclusively in the steppes of Central Kazakhstan. A three-year project to track the birds was launched by the Association for Conservation of Biodiversity of Kazakhstan (ACBK). The results of their project will be used for updating the International Action Plan for Conservation of the Sociable Lapwing, as well as implementing the National Plan for Conservation of this important bird species.

### Sturgeon Hatchery Support

Since 2017 TCO has been participating in the preservation of marine biodiversity providing support to the Ural-Atyrau Sturgeon Hatchery. The purpose of this program is to reduce the number of adult fish removed from the wild population each year and increase the number of wild caught broodstock that are returned to the sea.

The following efforts led to positive changes in achieving the target objectives: provision of high-quality feed for the broodstock and fry, arrangement and holding technical workshops to improve the competence of staff personnel, donation of aerators for oxygenation of the fish-rearing ponds, and excavator for external dredging work at the Hatchery's ponds. In 2022, TCO purchased winter and summer water chillers for basins with the closed loop water supply system to maintain an appropriate water temperature for the sturgeon fish. Also in 2022, TCO provided the Hatchery a sponsorship support to grow and release 50,000 sturgeon fries into the Ural River to conserve and restore the sturgeon stocks in their natural habitat.

As a result of the support provided to the Ural-Atyrau Sturgeon Hatchery, the sturgeon broodstock have showed an increase in weight.



### Ghost Fishing Net Removal Project

In 2017, TCO began supporting a project managed by the Institute of Hydrobiology and Ecology to retrieve abandoned fishing nets in the North-East part of the Caspian Sea. The project is focused on protection of endangered marine species, such as the Caspian seal and the sturgeon, and focuses on prevention of mortality through entanglement with abandoned fishing nets. Within the framework of the project, a study is being completed on microplastics in the Caspian Sea and their impact on the wildlife.

As a result of the field work conducted in 2022, about 3,000 kg of abandoned fishing nets and 1,800 kg of marine debris were collected over 387 km extending from the Northern coast of the Tubkaragan Peninsula. Over the life of the project, there were 878 abandoned fishing nets (23,500 kg) and more than 11,000 kg of marine debris that been removed from the Caspian Sea, and 53 live sturgeon and 15 live seals have been released into the sea from the abandoned fishing nets.



## ENVIRONMENTAL MONITORING

TCO conducts a comprehensive system of continuous environmental monitoring within its area of operations. As part of this program, samples of air, water and soil are collected and analyzed in TCO's environmental laboratory against specified thresholds and background conditions to track and proactively manage potential impacts on the environment.

TCO's environmental laboratory is certified and has been operating since 2016 and is equipped with state-of-the-art technology and equipment.

Industrial environmental control reports are submitted to Atyrau Oblast Ecology Department via approved information system on quarterly basis.

### Air Monitoring

Air monitoring is a core component of TCO's Environmental industrial control program. Continuous monitoring is in place to obtain ambient air quality data and proactively evaluate and mitigate potential impacts from the company's production operations. The air monitoring system enables TCO to plan and implement preventive and mitigative measures to reduce or eliminate environmental impacts on air quality in the areas surrounding its operations.

TCO carries out several types of air monitoring within its area of operations and Sanitary Protection Zone (SPZ), as well as in the village of Zhana Karaton.

*Underplume monitoring.* Underplume monitoring is performed to assess the potential impact of emission sources from TCO production facilities.

TCO monitors the following areas near the flare stacks:

- 1 point upwind from the plants at a distance of 16 kilometers in all directions, except for the west (in the west direction the point is at 8-10 km depending on accessibility of the road);
- 9 points downwind from the plants at the distances of 0,5, 1, 2, 3, 4, 6, 8, 10, 15 kilometers.

*Air monitoring at the border of the sanitary protection zone.* There are 11 mobile posts with fixed coordinates at the border of the TCO sanitary protection zone that are used to assess the level of atmospheric air emissions and to comply with the established norms. Continuous monitoring is recorded for the following constituents: nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), carbon monoxide (CO), hydrogen sulfide (H<sub>2</sub>S), hydrocarbons (CH) and elemental sulfur (S). The results of measurements at the border of the TCO Sanitary Protection Zone for 2022 showed no exceedance of maximum allowable concentrations.

*Air Monitoring at emission sources.* TCO also performs regular monitoring at emission sources at specially equipped sampling points to monitor compliance with permitted limits. Emissions are monitored using certified portable gas analyzers



that register the concentrations of carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>) and the temperature, velocity and volume of the gas-air mixture.

*Air monitoring at settlements and in Zhana Karaton.* Air samples are collected four times a day in TCO rotational village and on a weekly basis in village of Zhana Karaton. TCO facilities do not have an impact on the air quality of abovementioned areas.

*Environmental monitoring stations.* TCO maintains a special air monitoring system comprised of 12 automated Environmental Monitoring Stations (EMS) within its area of operations and along the perimeter of the SPZ. The EMS stations are equipped with modern analyzers capable of detecting concentrations of hydrogen sulfide (H<sub>2</sub>S), carbon monoxide (CO), nitrogen oxides (NO, NO<sub>2</sub>), methane ((CH<sub>4</sub>) and sulfur dioxide (SO<sub>2</sub>). Each EMS is automated and operates 24 hours a day.

#### **Case Study for EMS Sharing**

*As part of the Company's commitments in the Roadmap for an Integrated Solution to Environmental Issues in Atyrau Oblast, TCO initiated real-time air quality data sharing from four EMS stations.*

*The concentrations of hydrogen sulfide (H<sub>2</sub>S), sulfur dioxide (SO<sub>2</sub>), carbon monoxide (CO), nitrogen oxides (NO, NO<sub>2</sub>), methane (CH<sub>4</sub>) and meteorological parameters are averaged and transmitted online to "Kazhydromet" RSE every 30-minutes. The EMS data from these four stations are available on the AirKZ mobile application and are shown at the interactive map of "Kazhydromet" RSE.*

#### **Groundwater monitoring**

Groundwater monitoring is completed through a large network of observation wells, including 125 observation wells at Tengiz and Korolev fields, and 11 background monitoring wells located away from operational facilities. In 2022, the existing groundwater monitoring network has been increased by 7 monitoring wells to conduct observations at the FGP/WPMP facilities.

#### **Monitoring of soil**

There are 55 points where soil samples are drawn for analysis, the result of which helps to ensure the control over the soil conditions within TCO's industrial areas. Soil samples are analyzed in accordance with the approved methodology in laboratories accredited in compliance with the legislation of RoK. In 2022, soil sampling results showed no exceedances of background concentrations.

#### **Wastewater monitoring**

TCO monitors wastewater on a regular basis to ensure compliance with established emission limits. Wastewaters are controlled in effluent treatment facilities, evaporation ponds and prior discharging into water injection wells. Frequency of sampling and analysis complies with the approved program and schedules of analytical control. In 2022, there were no exceedances in wastewater injection.

Minor exceedances for specific ingredients were observed during discharges to evaporation ponds, where mitigation measures were undertaken immediately.

To conclude the above, constant monitoring is performed for all environmental components such as air, water, soil. TCO's environmental monitoring program complies with current environmental regulations. All data obtained from monitoring is included into reports that are issued regularly under the TCO's Industrial Environmental Control Program.

### Tree Planting Project

Withing the framework of Roadmap for an integrated solution to Environmental issues of Atyrau Oblast, TCO has launched a tree planting project in Kulsary. In 2022, there were spring and autumn plantings of seedlings, such as elm, ash, berry, apple, maple, and ailanthus. In total, 9 030 trees were planted on the territory of 15 ha in the following areas of Kulsary: R. Balmukhanov Street, Akzhar Street, Kulsary – Atyrau road, and Atyrau micro district. The company planted an additional 3 030 seedlings in October and November of 2022. TCO continues its efforts on planting trees on more territories in Kulsary and watering of already planted trees.



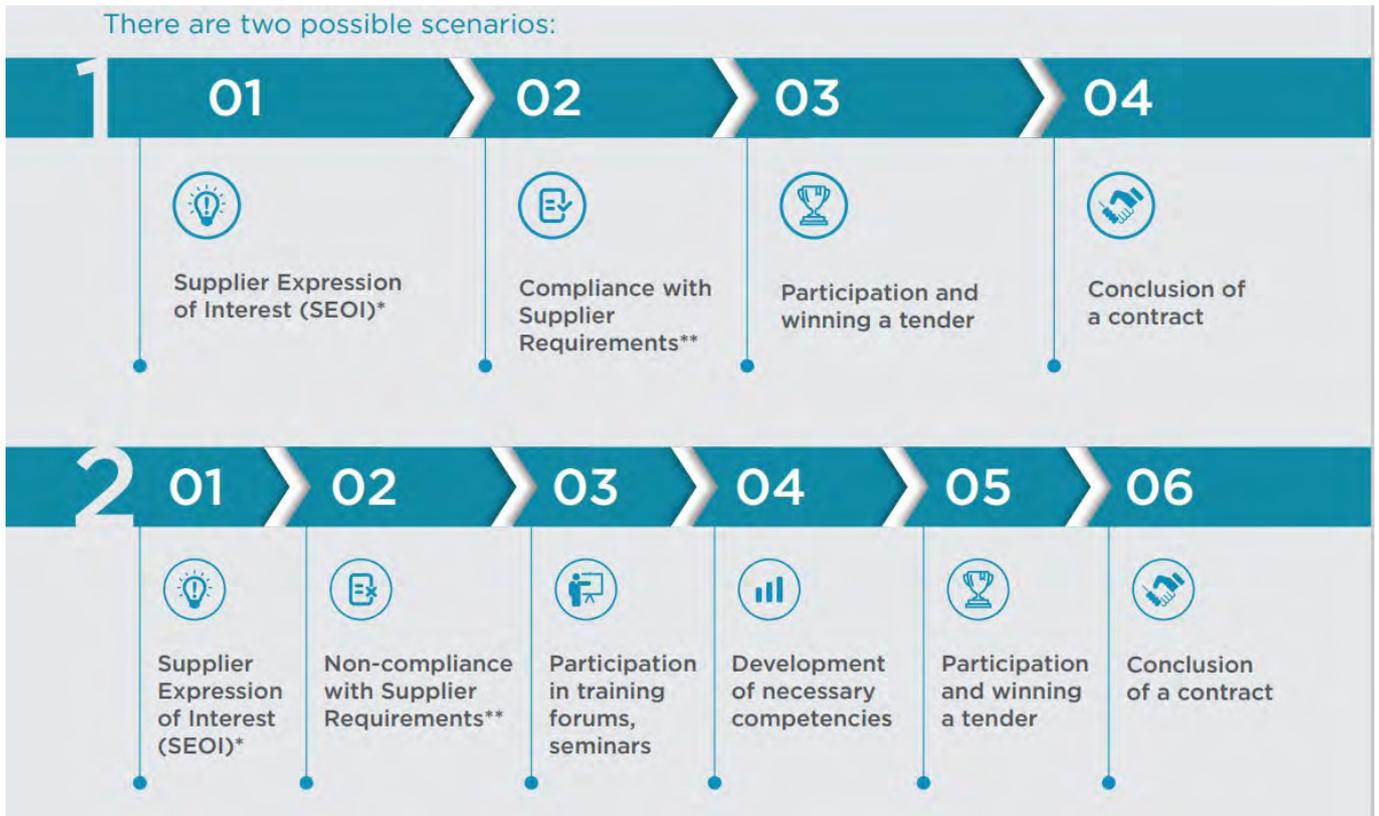




## KAZAKHSTANI CONTENT DEVELOPMENT

The continued development of a Kazakhstani market for goods and services that meets high international standards is a cornerstone of the company's sustainable development strategy – and creates significant benefit for the Republic of Kazakhstan. TCO believes that if the company is to achieve its Kazakhstani content objectives, it must generate long-term opportunities for the suppliers of goods and services. TCO will continue to support the sustainable development of Kazakhstani suppliers, encouraging appropriate investments in infrastructure, Kazakhstani workforce training and the creation of jobs.

TCO spent more than \$3.7 billion on Kazakhstani goods, works, and services in 2022.



TCO uses a fair and transparent contracting process that leverages the Supplier Expression of Interest (SEOI) portal to identify potential business partners. TCO encourages all interested parties to register on the SEOI portal for current and future opportunities. Furthermore, to promote transparency, TCO posts its annual contracting and procurement plan on its external website to ensure the market knows about all potential opportunities at TCO.

TCO is open to the dialogue with the market to build trust and clarity on how to work with TCO, that's why we conduct forums, round tables, and seminars with the participation of local business community representatives to find partnership opportunities in various business sectors for the future strategic needs of the company in the relevant products and services. TCO shares technical specifications and requirements, organizes round tables with representatives of different TCO departments and technical experts.

TCO strives to develop and maintain strong business relationships with customer-oriented suppliers who have a strong safety culture, track record of reliability, cost management skills, and quality products as well as services with competitive prices and innovative business solutions. Tengiz is a complex field, so TCO has elevated expectations for itself and its business partners to ensure effective management. TCO work affects the lives of tens of thousands of people across the Republic of Kazakhstan, and it affects the lives of our customers around the world who rely on safe and reliable supplies of energy.

### Local procurement and supplier development

TCO's local content programs aim to develop sustainable, meaningful local content and grow local capabilities. Investing in our suppliers fosters local economic growth and helps TCO meet our business





### Internal supplier development program

For TCO's internal program, the company undertakes business demand analysis, reviews upcoming procurements and project's needs, and potential local manufacturers together with TCO technical experts. This leads to the development of a list of "target items" which we qualify and move to trial orders for further local manufacturer engagements.

#### During 2022, TCO had been developing over 21 products and service lines under categories such as:

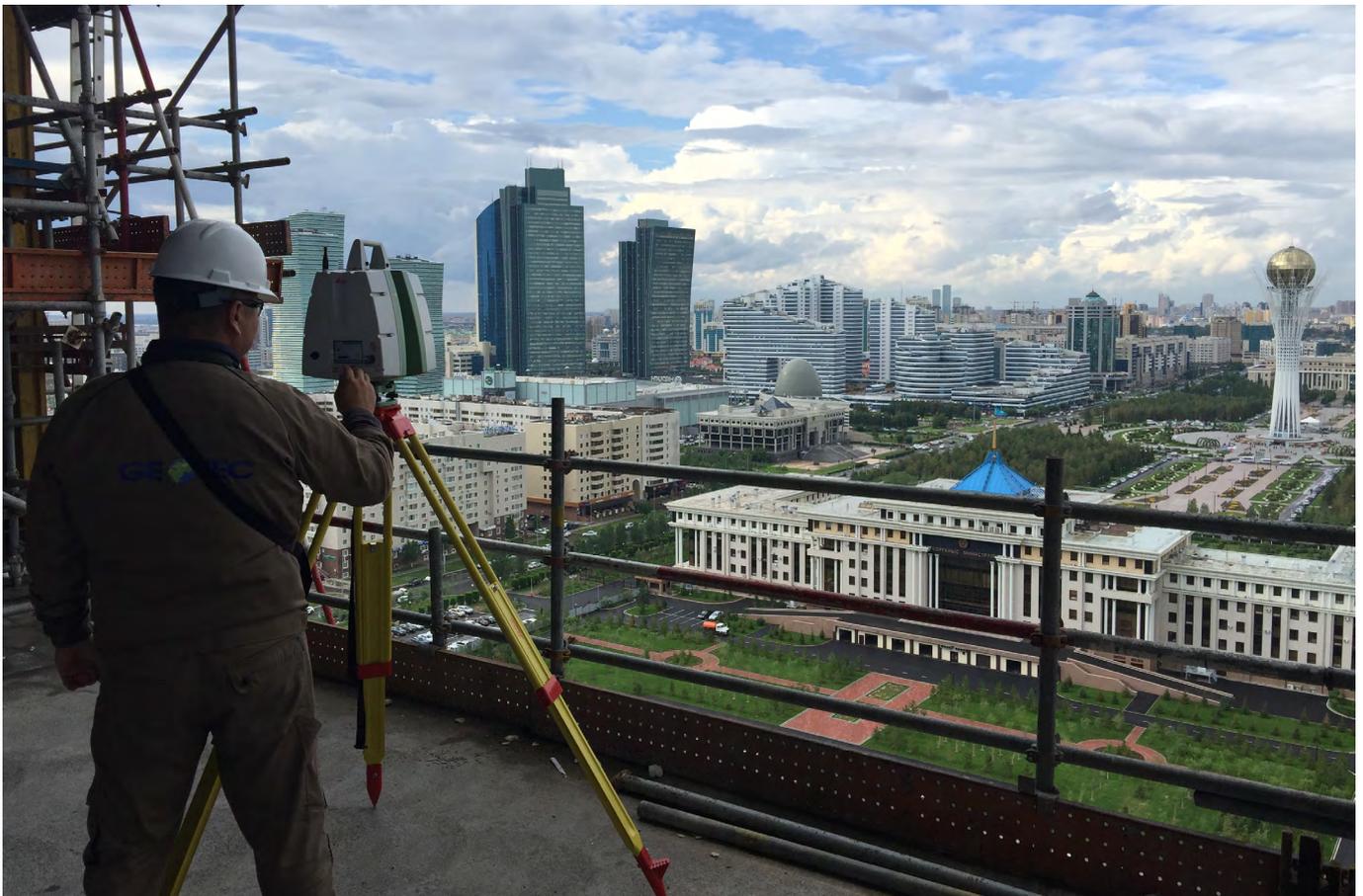
- safety items (fire extinguisher, fire truck, fire blanket, gloves);
- electrical equipment (cable trays, junction boxes, low voltage cable, electrical substation);
- drilling materials (drill bits supply and refurbishment);
- construction (steel products);
- MRO – (seamless pipes, ball valves, studs & bolts, piping flanges & fittings);
- Railroad materials (timbers).

### TCO-EBRD supplier development program

To support the development of small and medium-sized enterprises and to strengthen Kazakhstani suppliers TCO works with the European Bank of Reconstruction and Development (EBRD) to implement the TCO/EBRD Supplier Development Program. The program enables potential suppliers to access a diverse range of consulting services to build their capacity in areas such as: quality management systems (ISO), quality certifications, financial and management information systems. Comprehensive support in the form of individual advisory projects and capacity building through group industry-specific workshops offered by the Supplier Development Program is an important driving force behind increasing local content for TCO and other companies in the oil and gas industry.

At the end of 2022, more than 50 consultancy and advisory projects were launched, and 29 projects were completed. Additionally, annual training is provided to over 200 representatives from local companies.

Based on the evaluation of 29 completed projects, 76% of assisted companies increased turnover by 54%. About 62% of companies increased the number of employees by 12%, 456 new jobs were created. In addition, 55% of companies reported an average increase of 23% in the number of female employees or the hiring of 124 new female employees. 66% of enterprises raised productiveness by an average of 13%, and 14% of companies reported an increase in exports.





### International Machinery Building Center (IMBC)

The Association of Legal Entities “International Centre for Development of Oil and Gas Machine Building” (IMBC) was established with support of the Government of the Republic of Kazakhstan in 2021 by major Oil and Gas Operators of the largest oil & gas fields in the Republic of Kazakhstan, namely TCO, NCOC, KPO, who are the sole Members of the IMBC. The purpose of the IMBC is to contribute to the development of the manufacturing of Kazakhstani oil and gas goods and increase the Local Content in the procurement of goods by the major operators.

IMBC has been entrusted by the operators to collect their overall data of forecasted demands, consolidate it for analyses to identify synergies in demands, qualify local manufacturers and based on the market availability and readiness, to recommend possibilities for localization of goods in-country for their ongoing and future projects.

In 2022 IMBC conducted analysis and identification of commodities for further development. As a result, over 190 manufacturers were identified, and 38 were shortlisted for manufacturing capacity development. In 2023, IMBC will continue the work by implementing manufacturers’ capacity development.

### FGP-WPMP Kazakhstani Content

Although the FGP-WPMP project is nearing completion, TCO continues to seek opportunities and actively promote involvement by Kazakhstani companies, suppliers, manufacturers, construction contractors, and labor resources in works to maximize local content. In 2022, TCO acquired goods and services from Kazakhstani suppliers worth \$2.27 billion only within the framework of the FGP-WPMP. The project has enabled outstanding results, exceeding planned 32% KC and achieving an aspirational target of 40% in 2022.

### FGP-WPMP Training and professional development

The FGP-WPMP Training Assurance Team aims to increase the availability of skilled labor which is in demand in the Kazakhstani oil and gas industry. Moreover, the project aims to leave a lasting legacy in the form of skills in engineering, construction, and other technical professions for future projects around Kazakhstan. FGP-WPMP Training and professional development During the period from 2019 to 2022, TCO arranged 9 basic training phases in Mangistau Oblast and 7 basic training phases, also 4 special training phases in Atyrau Oblast. In 2022 FGP-WPMP workforce has been successfully trained, and 5,400 have been assessed and around 12,000 have been trained. These activities have brought the project to over 32,000 assessments and around 27,500 training sessions, a rare achievement in the industry.

Candidates are trained for one of 11 disciplines like welder structural, welder pipe, pipefitter, steel erector, scaffolder, electrical fitter, instrument fitter, civil worker, sandblaster, painter, and insulator. Duration of the course varies from two to four months - depending on the chosen discipline. Training is divided into stages and conducted by accredited FGP training centers; Aktau Training Center (with subcontractor Industrial laboratory training center) and APEC PetroTechnic.

### Digital TCO Hackathon & Forum 2022

The main purpose of the event is to progress TCO's digital transformation through better partnership with innovative, local IT companies. TCO is open to innovative ideas, and we strive to create efficient and convenient solutions to address the challenges we meet today and in the future. TCO's digital ambition is to ensure TCO personnel are empowered with timely, accurate information and robust digital tools to realize TCO vision of being the safest, most efficient, and profitable oil and gas enterprise in the world.

Digital TCO Hackathon & Forum 2022 hosted many guests from various areas: government representatives, TCO partners, mass media, IT companies, other oil and gas companies. This event was a wonderful opportunity for Local Digital services providers to show their capability, exchange experience and build networking connections. 26 local IT companies participated in the Hackathon; they were supposed to find a digital solution for SCM Material Tracking process. Digitalization of these processes increases productivity through reducing manual work and queuing at posts, whilst increasing security by allowing High Security Risk Materials (HSRM) to be monitored from release to installation, recycling or returning. There were 3 winners, who received as a prize a 6-month trial contract with TCO.

TCO believes that supporting the digital opportunities in the Republic of Kazakhstan by developing and building digital talents will leave a legacy of a capable workforce.

### TCO Waste Management Forum 2022

TCO is open to dialogue with the market to build trust and clarity on how to work with TCO. During the industry events we meet with Kazakhstani suppliers and explains them the basic procedures and requirements for becoming a TCO supplier. One of such events was TCO Waste Management Forum 2022. The aim of the forum was to raise awareness about the upcoming waste management bid process and generate interest in the business opportunities with TCO from a larger pool of Kazakhstani companies.

TCO is committed to continuous improvement of environmental performance. All TCO facilities and production sites are equipped with special containers with color marking for waste sorting: plastic, paper, glass, metal. To expand recycling volumes further, TCO constantly monitors the potential supplier market and learns available waste management methods. TCO believes that sustainable local companies that actively contribute to sustainable development benefit the economy, society, and the country. TCO believes that effective waste management will allow to achieve even more significant indicators in this field and will make a significant contribution to the green principles outlined by the Government of the Republic of Kazakhstan.



## PEOPLE STRATEGY



Workforce development and trainings



Workforce diversity and inclusion



Social package



Digital culture





TCO's People Strategy is to "invest in our people to develop and empower a highly competent workforce that delivers results the right way".

**We focus on:**

- Enabling Strategic Staffing Planning for the near and long-term business needs. Our primary focus during this process is hiring and developing Kazakhstani citizens.
- Implementing People and Talent Management Strategies that help us to attract, retain, develop, deploy talent, and continuously grow our organizational capabilities needed today and, in the future, as well as reinforce collaborative and team behaviors.
- Enhancing employee experience and well-being.
- Developing leadership capabilities at all levels across the organization and managing our succession plans.
- Promoting diversity and inclusion. TCO relies on the uniqueness of each individual's talents, experiences, and ideas to drive the Company's success.
- Fostering the One TCO culture consistent with the TCO Way. The culture that is built on a common purpose, teamwork, respect, and feedback – and

rooted in inclusion, trust and empowerment which is essential for everyone to reach their full potential and be their best in the workplace.

The following pillars drive intentional actions in support of People Strategy execution.

Resourcing Strategy - to ensure the right number of people with the right skills and competencies in the right roles, at the right time and at the right cost.

- TCO identifies present and future talent and critical/key competencies needed to execute business strategies, identify, and quantify gaps, and prioritize activities.
- TCO creates and utilizes a holistic and strategic approach to attract, develop, and retain talent with or capable of, acquiring the knowledge, skills and behaviors needed to meet current and long-term business needs.
- TCO's recruitment process is open, transparent and leverages advanced technologies. We utilize an external website to post our vacancies to ensure that all potential candidates have equal access to apply. We not only hire experienced specialists, but also talented graduates of higher education institutions, based on the needs of the company.





### Workforce Development

Learning & Development Programs enhance individual and team performance, TCO delivers fit-for-purpose organizational development interventions and best-in-class learning and development solutions for the business.

To ensure that new employees achieve the necessary work efficiency in the shortest possible time TCO utilizes an Onboarding Program mandatory for all direct company and agency employees.

To accelerate technical and professional competency development, the TCO Horizons Program is successfully utilized for Petro Technical functions, while supporting functions are covered by tailored programs that meet the needs of these departments. TCO Horizons Program

includes a combination of technical training & learning, mentoring, on-the-job assignments, and competency assessment where each of these elements reinforces the other.

One of the fundamental aspects in the development and support of highly competent workforce is the development of leadership qualities which is carried out through the Leadership Development Program. The Program is based on the 'We Lead' competency model and includes learning programs for various organizational levels, complimented by mentoring, coaching services, New Leader Assimilation Process, and 360 Feedback.

Language Courses (Kazakh and English) are offered as part of TCO employee training and development programs, to maintain effective communication at the workplace and to conduct business both locally and globally.

In 2022, portfolio of L&D programs was extended with TCO Meta Skills Framework, a breakthrough learning program aimed at developing uniquely human skills which will help prepare our workforce for new challenges of the ever changing and unpredictable world and be successful in the future.

### Succession Planning and Nationalization

TCO implements strategic programs and processes to ensure that at any time the Organization has "a robust bench strength" with the ability, knowledge, skills, leadership behaviors and experiences necessary to step into key leadership and key technical positions. Since 2007, over 430 TCO national employees have been appointed to positions of managers, middle managers, and key engineering positions, replacing expatriate employees.

Temporary International and Domestic Development Assignments – TCO provides talented TCO national employees with an opportunity to gain work experience in TCO's Partner Organizations, predominantly in Chevron and ensure assignees' exposure to diverse experiences and development of unique competencies, knowledge of international standards, technologies, and best practices.

TCO places the highest priority on the safety of its personnel. All TCO employees and contractors attend mandatory safety training to perform work without any injury or accidents.

International and Domestic Assignments support such processes as succession planning and nationalization. In total, over 400 TCO national employees have been on temporary international and domestic assignments since 1999.

Career Development Planning – TCO provides employees with the right career growth opportunities to accelerate leadership and technical competency development, including management and execution of targeted/specific assignments for high-potential employees, Future Leaders, and Successors, as well as continual review and focused discussions on TCO’s Talent Pool and their progress against approved career development plans.

In addition, the Company invests in education of its employees, providing them with financial assistance in obtaining post-graduate degree. In general, since 2008, the Company has invested over \$93 million in the development of national employees.

**Social package**

Retention Strategies – to attract and retain talent, TCO offers a robust social and remuneration package, implements talent management and well-being strategies, and sustains an organizational culture that supports diversity & inclusion, integrity, trust, and teaming.

TCO’s remuneration system is based on principles of unity, credibility, competitiveness and contributes to an increase of individual productivity (payment based on Performance Management Process (PMP) results).

An employee bonus system is aimed at achieving common goals, motivates employees to improve the efficiency of the overall work, and consists of bonus payments. In addition, the company has a number of benefits for employees, such as the provision of paid social leave, the payment of health benefits when granting annual leave, etc.

**TCO Recognition and Awards (R&A) Program**

The TCO R&A Program includes monetary and non-monetary recognition. The Program is designed to reinforce positive behaviors, enhance employee experience, and express appreciation for significant results achieved by employees towards contributing to the Company’s success. Recognizing things done right, saying thanks for a job well done and letting employees know their efforts are appreciated goes a long way towards promoting and encouraging repeated outstanding

efforts and fostering a positive work environment. Both TCO Monetary and Non-monetary Awards business processes have been automated on TCO Human Resources Self-Service (SAP) Portal providing the program digital enablement and enhancing employee experience.

**Medical Insurance**

In accordance with the legislation of the Republic of Kazakhstan, TCO provides mandatory insurance for employees. Voluntary medical insurance for TCO employees in Kazakhstan and their family members is provided by insurance companies of the Republic of Kazakhstan.

**Healthy Lifestyle and Sports Programs**

To promote a healthy lifestyle, all TCO employees have the opportunity to use the services of fitness and wellness centers. In addition to this, the internal Health and Wellness program led by “Kemel” Team helps and encourages employees to achieve personal health and wellness goals. Kemel is a Kazakh word for «to strive for perfection». This program is built around three pillars: Healthy life, Active life, Leisure life.

*Over the last year, the Kemel Group has held a variety of events and tournaments involving more than 14,000 participants. These included Kemel fitness classes, tournaments and competitions (Tennis, streetball, swimming, chess, etc.), 10 000 steps challenge, 300 Kcal program, Recharge with Kemel, 800 Nutrition and weight management program, wellness*



webinars, health days, art therapy, karaoke, and concerts dedicated to Nauryz holiday, Oil and Gas Industry workers Day.

### Medical Services

Employees working on a rotational basis can use the services of a medical clinic located on the territory of Tengiz. The clinic is equipped with modern medical equipment.

### Long Service Award Program

Annually, as part of the “Long Service Award” Program, an employee who has reached a work anniversary at TCO (5 years and more) receives a gift and a pin with the TCO logo. In 2022, 720 TCO employees were rewarded within this program.

### Housing Loan Assistance Program

For many years, TCO has been implementing a housing loan assistance program by issuing interest-free loans to purchase housing and improve housing conditions. In 2022, 208 housing loans have been issued.

### Kindergarten «Miras-Atyrau» for Children of TCO employees

TCO funded the construction of the Miras Atyrau Kindergarten in 2014, which provides daycare for children of TCO employees living in Atyrau. The curriculum of the kindergarten was developed by the newest programs and methodologies of Nazarbayev Education Foundation.

### Zhas Urpak Program

The program aims to provide financial assistance to the children of the company employees in obtaining higher education in national and foreign universities and colleges.

Since 1998, TCO has allocated \$7.6 million as financial assistance in obtaining higher education. In the 2022-2023 academic year, 78 students took part in the program.

### TCO reimburses the employees' expenses on holiday travel with children.

ТШО возмещает расходы сотрудников на отдых с детьми.

### Workforce diversity and inclusion

It is important for the company that its employees demonstrate diversity and inclusion, partnership, integrity and trust, high performance, and are committed to protecting people and the environment. Therefore, as part of the annual performance management process, great attention is paid to how each employee's results were achieved, and what behaviors they demonstrated throughout the year.

TCO has a multinational workforce, and we are proud of our inclusive work environment that respects the uniqueness and diversity of cultures of our employees, and values their individual talents, ideas, and contributions. Diversity and Inclusion are core values in the TCO Way, and we believe that each of our employees brings tremendous value to the workplace through the diversity of their experiences, nationalities, ethnicities, genders, ages, education and socioeconomic backgrounds, religious and political beliefs, and individual personalities.

### Employee Networks

TCO's Cultural Diversity Network (CDN), XYZ Network and Women's Employee Network (WEN) create additional opportunities for our employees to learn, develop and transfer knowledge and experience. The TCO CDN fosters an environment of cultural inclusion and harmony between TCO's diverse cultures, focusing on highlighting our commonalities while understanding and respecting our differences. The Atyrau chapter of XYZ was founded in 2013 and includes TCO and Chevron Pipeline Plant employees. The Atyrau chapter of XYZ currently has over 700 members. The mission of the XYZ Network is to connect generations, provide a platform for experience and ideas exchange with peers, learn business processes and generate innovative ideas. The WEN has been established in 2013 at TCO and



pursues a goal to empower, inspire and develop TCO workforce by advancing opportunities for increasing awareness among the TCO society on challenges and opportunities women face at the workplace.

In 2022, Employee Networks delivered various events to promote diversity and inclusion and support well-being of TCO employees and community. Some of the highlights include Coffee Break sessions with TCO Leadership on ‘Diversity & Inclusion’, the 5K Run & Walk event that aimed to raise health awareness and team building; Movember Fundraising to support the Atyrau Oblast Boarding School for kids with special needs, Panel session with SMEs to learn more about national and global policy, TCO’s current carbon emissions profile and future efforts, and «Women in Energy - Pushing the limits» Forum organized in collaboration with NCOC and aimed to address the issues of professional development and personal growth of women in the cultural context, improving their competitiveness, balancing career, and gender roles, pay gap, and other issues of significance.

Beyond that, TCO networks provide an environment for personal self-fulfillment of employees, experience exchange, professional development, charity, and many more to positively impact on company culture as well as local community!

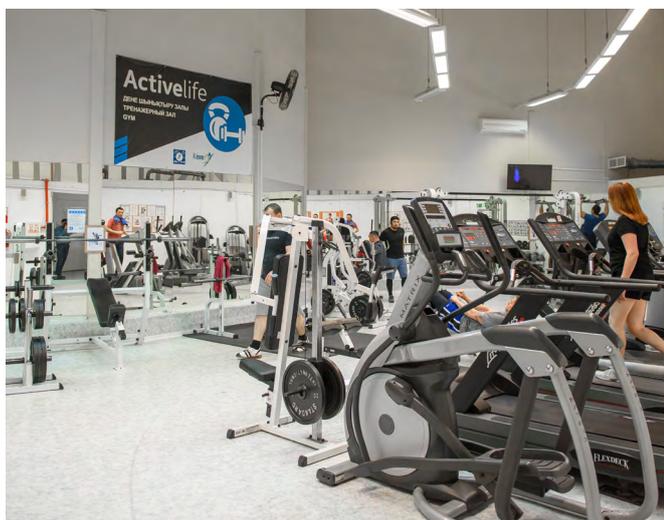
### Digital Culture

One of the great initiatives implemented as part of the enterprise Digital Organizational Capability plan is the Digital Scholar Program. Chevron is partnering with the Massachusetts Institute of Technology (MIT) and Rice University to create one-year Master of Science (MS) degree programs for Chevron and TCO employees, focused on engineering, management, and



digital technology. This program gives our employees the opportunity to complete advanced study programs and obtain new data analytics and other technical skills to help lead TCO in an industry that is heavily applying digital tools and concepts. As a result, four program scholars successfully graduated from MIT and Rice by 2022 and started to work in critical positions in the company. Moreover, TCO has sponsored two more employees who started pursuing a master's degree within the program in August 2022.

In 2022, TCO continued with two important initiatives: a Data Science Expansion program and TCO Digital Pioneers Program. The first program is an effort to find ways of quickly scaling data science delivery and Organizational Capability growth, while resource constrained. This program empowered TCO Subject Matter Experts (SMEs) to gain new business insights using Machine Learning and proved alternative methodologies to deeply intertwine business SMEs within the data science workflow, driving faster speed of delivery. The second program identified talented TCO employees who are ready to learn new skills leveraging MS power tools and build self-service digital capabilities. More than 210 colleagues became Digital Pioneers since program launch, brought their innovative ideas to coaches and were able to develop solutions for their departments’ needs. In addition to that, in 2022 TCO conducted three successful Digital Yurt Hack-a-thons on PowerBI, PowerApps and Robotic Process Automation with more than 60 contestants from across the company. These initiatives proved that any employee, regardless of their training or discipline, can connect to TCO’s digital eco-system to increase digital fluency and create technology solutions to solve business problems and accelerate digital portfolios to deliver value at TCO.



In June 2022 TCO has hosted its first external Digital Tengizchevroil 2022 Hackathon and Forum in Almaty with an objective to explore Kazakhstani IT companies' capabilities for further partnership and development of the IT industry in our country. Around 30 companies made it to the final pitch day and presented their solutions on digital enablement of TCO Warehouse Management process. As the result 3 Kazakhstani IT companies were awarded with the trial contract with TCO.

In addition, TCO continued to enhance its Organizational Capability in Data Science and Machine Learning by launching the Data Science

Bootcamp in pilot mode in December 2022. The pilot program was made available to a selected group of employees and aimed at introducing the concepts of Data Science and Machine Learning to all those who are interested in these fields, regardless of their previous educational background (non-IT) or experience in IT. The primary objective of the bootcamp was to provide employees with a chance to learn and explore data science, and to apply their newfound knowledge to real-world scenarios in an intensive one-week bootcamp. The Data Science Bootcamp was created in collaboration with TCO's data science advisor and instructors from the Astana IT University who hold PhDs.





Republic of Kazakhstan  
3, Satpayev street, Atyrau



+7 712 227 1212  
+7 712 302 6000  
+7 712 302 6752



[tcoinfo@tengizchevroil.com](mailto:tcoinfo@tengizchevroil.com)



[tengizchevroil.com](http://tengizchevroil.com)





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