



Tengizchevroil: Leading innovation TCO way

Kazakhstan Energy Week
October 2023



TCO's digital transformation journey

Digital acceleration over 5 years



Resource
Maturation



Wells &
Field Facilities



Reliability &
Maintenance



Turnaround



Production
Optimization



Marketing &
Transportation



Value Chain

Digital products
for business
Covid-19 and
OPEC+



Integration

Integrated business
planning and
production
optimization
KTL/SGP Digital Twin



Digital Foundation

Cloud technology
IT foundation
Citizen development



Digitalization of Production

Connected Field
Worker
Turnaround and
Maintenance



End-to-End Digitalization

Big Data
Predictive
analytics
AI/ML



Data Science and Artificial Intelligence in TCO

Leveraging data to generate value across TCO value chain

safety

Safety Assist and
Advanced Safety
Analytics Realization
(ASAR)

Operational Excellence

subsurface

Reservoir Management
Machine learning Big
data Operations

**Reserves and
development costs**

maintenance

Motor failure prediction,
Pipeline internal
corrosion prediction

Reliability

production

Caustic water carryover,
Plants Technological
maximum (Techmax),
Digital Twin

Production Efficiency





Leading Innovation TCO Way

- Cybersecurity, integrity and compliance
- People centric approach
- Investing in Learning & Talent
- Strong Partnerships
- Innovating to deliver business value





Investments in Organization Capability Enable Transformation


DIGITAL SCHOLARS


 8 scholars

 6 graduates




EXTERNAL HACK-A-THONS & KAZAKHSTANI CONTENT


3 Kazakhstan IT companies awarded 

6-month trial contract 

UNIVERSITY ENGAGEMENTS

 **10** lectures

 **2** internships for teachers

 **2** hired fresh graduates



INTERNAL HACK-A-THONS & DEVELOPMENT PROGRAMS

180 business professionals active in low-code development 

500+ development program participants 

A large white '30' with a blue ribbon-like underline. The '0' contains a circular logo with a globe, the letters 'ТҚО' at the top, and 'ТЕНІЗШЕВРОЙЛ' at the bottom.

30

ЖЫЛ
ЛЕТ · YEARS

Рақмет