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**TUBAF**  
Die Ressourcenuniversität.  
Seit 1765.



# /HISTORY PARALLELS/



Glück auf

# FINDINGS FROM THE AWARENESS SURVEY

## A review of perceptions of Dnipro and the University Partnership

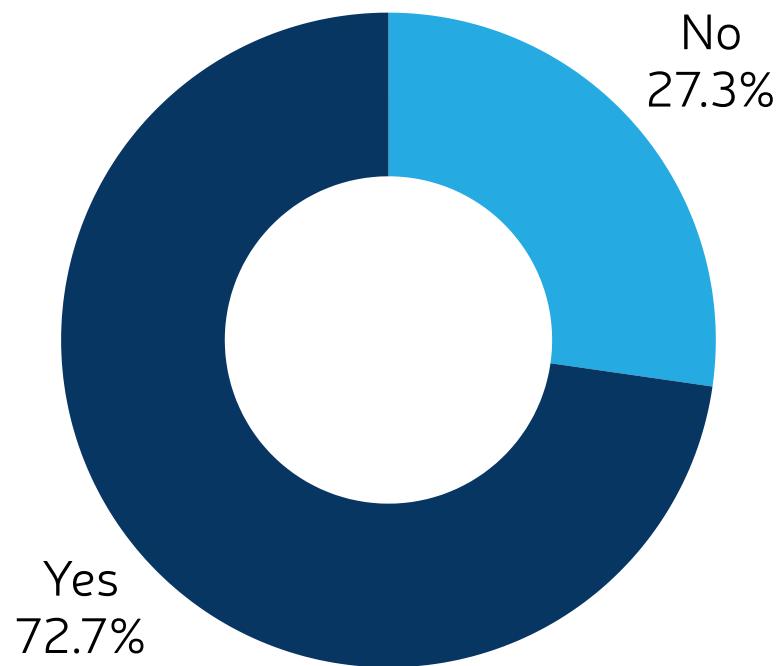
The aim of the survey was to evaluate the awareness of TUBAF students and staff about Dnipro, DniproTech, and the inter-university collaboration.



# KEY AWARENESS QUESTIONS

01

## ARE YOU FAMILIAR WITH UKRAINE?



Most respondents are familiar with Ukraine, showing a generally high level of awareness.

02

## WHAT ARE YOUR ASSOCIATIONS WITH UKRAINE?

Strong and resilient people - 26%

Breadbasket of Europe - 15%

Cultural heritage - 15%

Carol of the Bells (Shchedryk) - 15%



The most common associations with Ukraine are strong and resilient people, its role as the “Breadbasket of Europe,” and the cultural heritage of Carol of the Bells (Shchedryk).

16 PEACE, JUSTICE  
AND STRONG  
INSTITUTIONS



Shchedryk  
(Carol of the Bells)

Composed by Mykola Lec  
Arranged by Hannah Lec

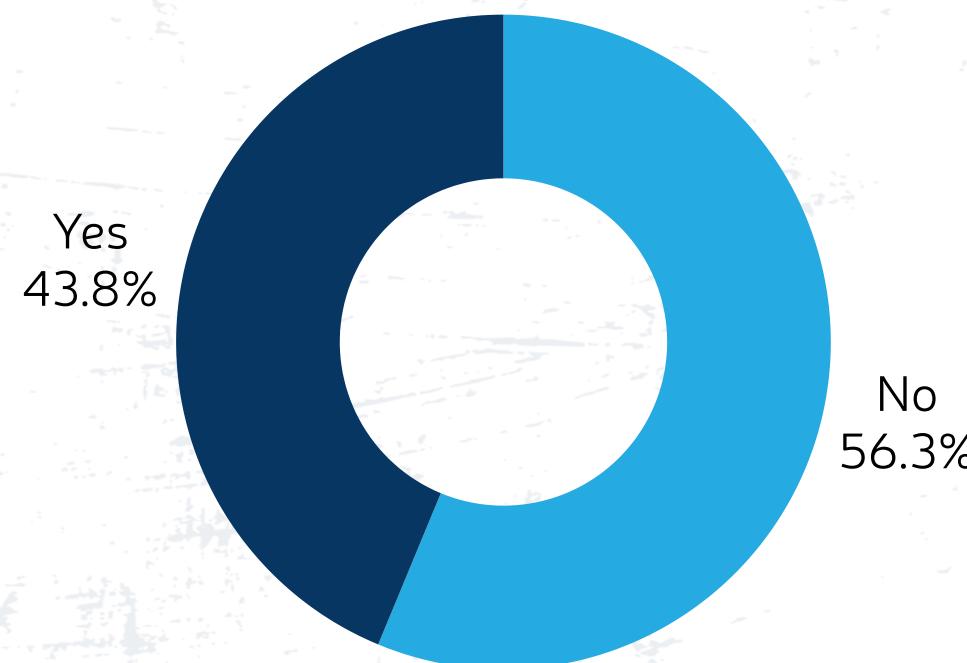


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# KEY AWARENESS QUESTIONS

03

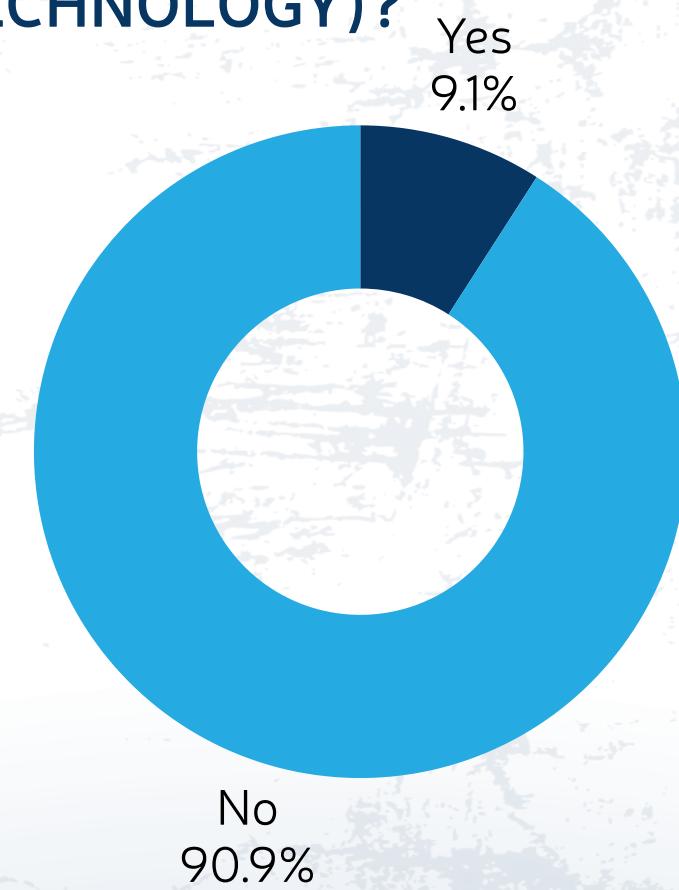
ARE YOU FAMILIAR  
WITH DNIPRO?



Awareness shows that most respondents are unfamiliar with Dnipro.

04

ARE YOU FAMILIAR WITH  
DNIPROTECH (DNIPRO UNIVERSITY  
OF TECHNOLOGY)?



Most respondents are not familiar with DniproTech, showing a significant awareness gap.

05

WHICH AREAS OF COOPERATION  
BETWEEN DNIPROTECH AND TUBAF  
ARE YOU AWARE OF?



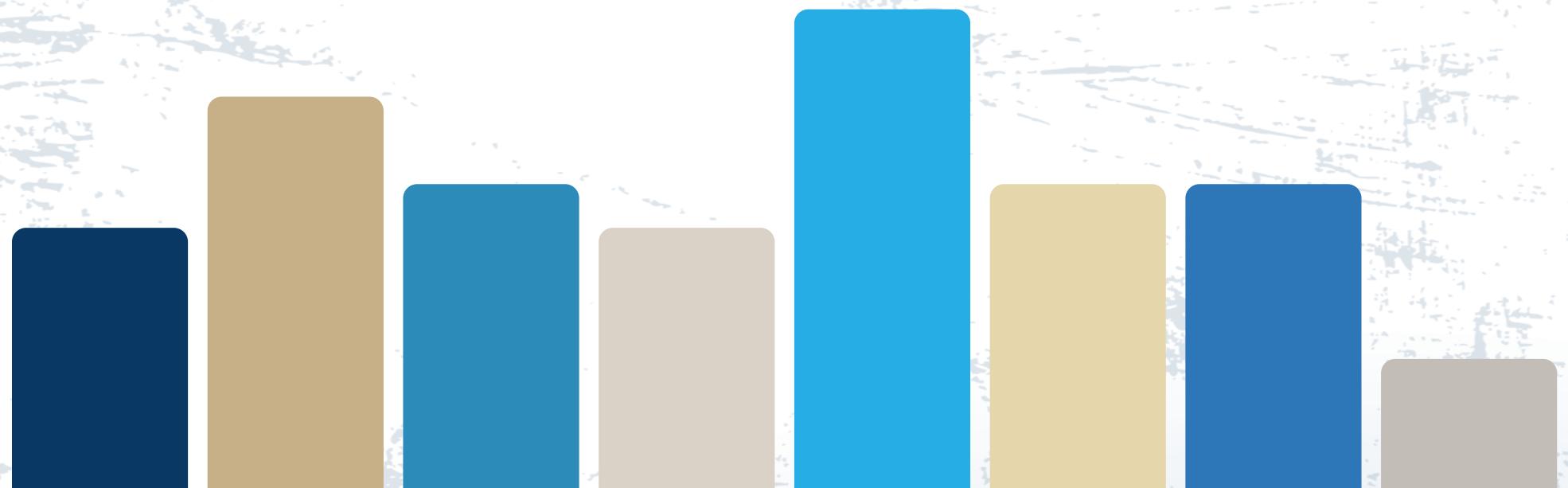
Only two respondents selected any option, indicating almost no awareness of the cooperation.

# KEY AWARENESS QUESTIONS

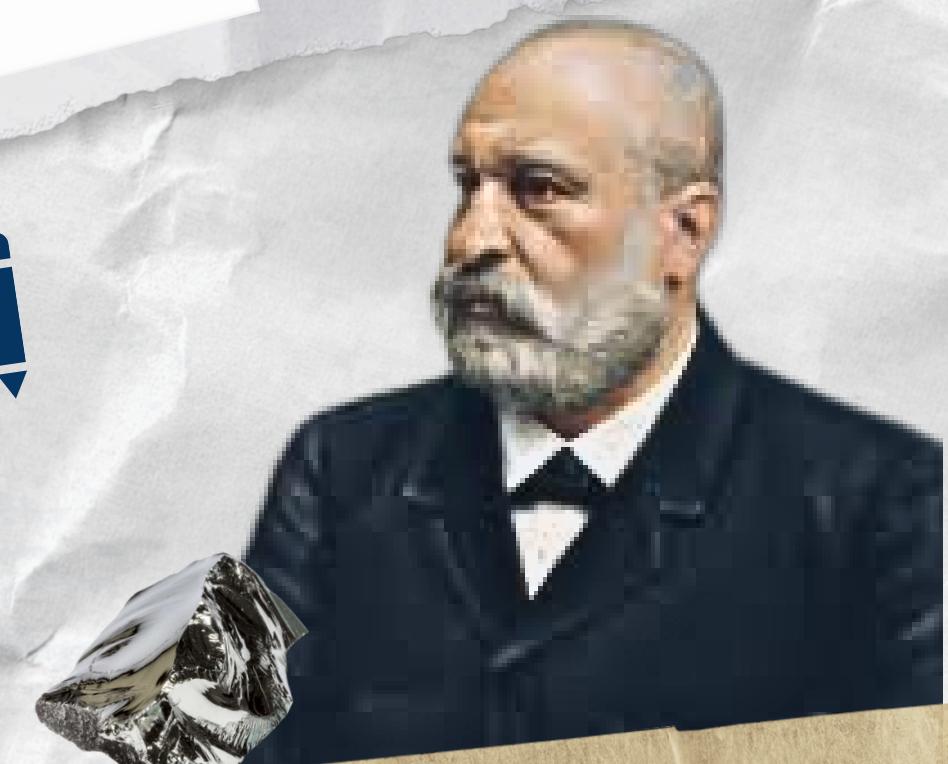
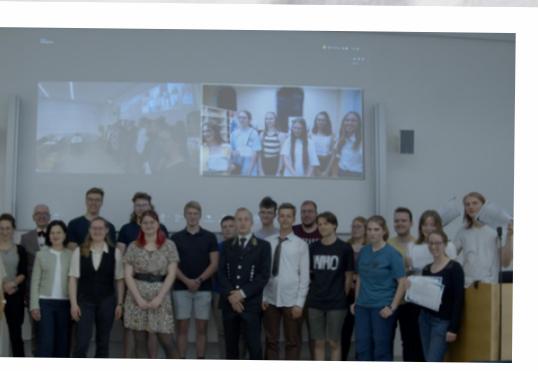
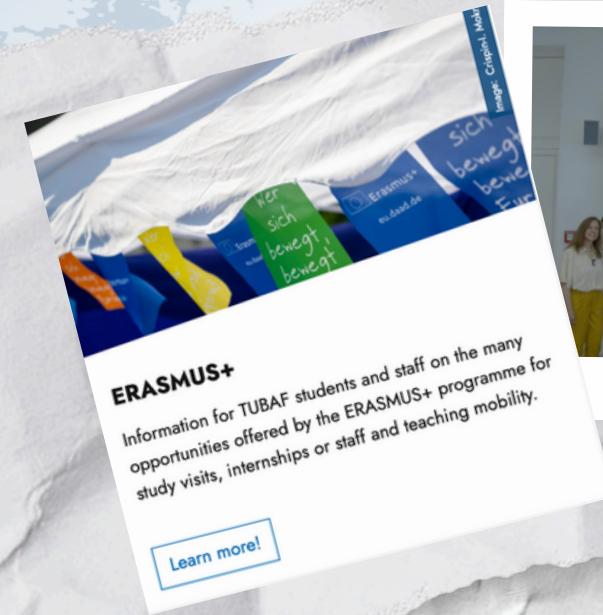
06

## WHAT ARE YOU MOST PROUD OF AT TUBAF?

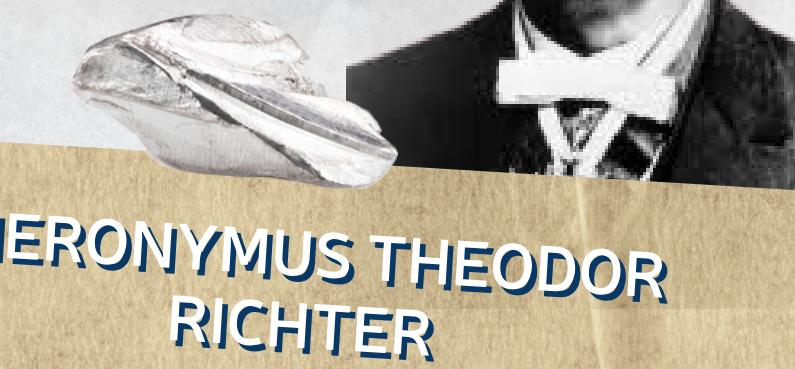
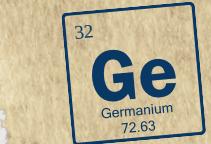
- Long history
- Scientific discoveries
- Renowned scientists
- Sustainability
- International cooperations
- Theory-practice link
- Strong research
- Other



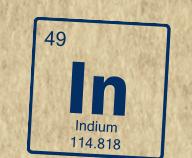
Overall, respondents value TUBAF for its scientific achievements and its history of notable figures, strong research, and international, practice-oriented academic environment.



CLEMENS ALEXANDER  
WINKLER



HIERONYMUS THEODOR  
RICHTER



# DNIPRO – FREIBERG



## DNIPRO



## FREIBERG

- Rich in minerals: iron, manganese, titanium, coal, oil, gas.
- Lies on the **Ukrainian Crystalline Shield**.
- Near Kryvyi Rih Iron Ore Basin – **one of the largest in the world**.
- Major **industrial, metallurgical, and aerospace center**.
- Dmytro Yavornyskyi studied **Zaporizhian Cossacks**; Oleksandr Pol discovered **iron ore**.
- Historically linked to **Cossack camps**.

- City of **silver** and pioneering **mining technologies**.
- Transitioned **from mining to research-based green technologies**.
- Historic center of European **mining sciences**.
- Strong industrial and cultural heritage, miners' greetings "**Glück auf!**"
- The oldest mining university in the world (1765).
- "**Silicon Saxony**"

# 1899

## Katerinoslav Higher Mining School

1899. The city of Katerynoslav is experiencing **one of the most dynamic periods of its development**.

The railway, which in 1884 connected **Kryvbas iron ore with Donbas coal**, gave a powerful boost to the growth of the city's metallurgical industry and the establishment of new mining enterprises in southeastern Ukraine.

More than 70 iron ore mines are already operating in **Kryvyi Rih**.



Amurskyi Bridge



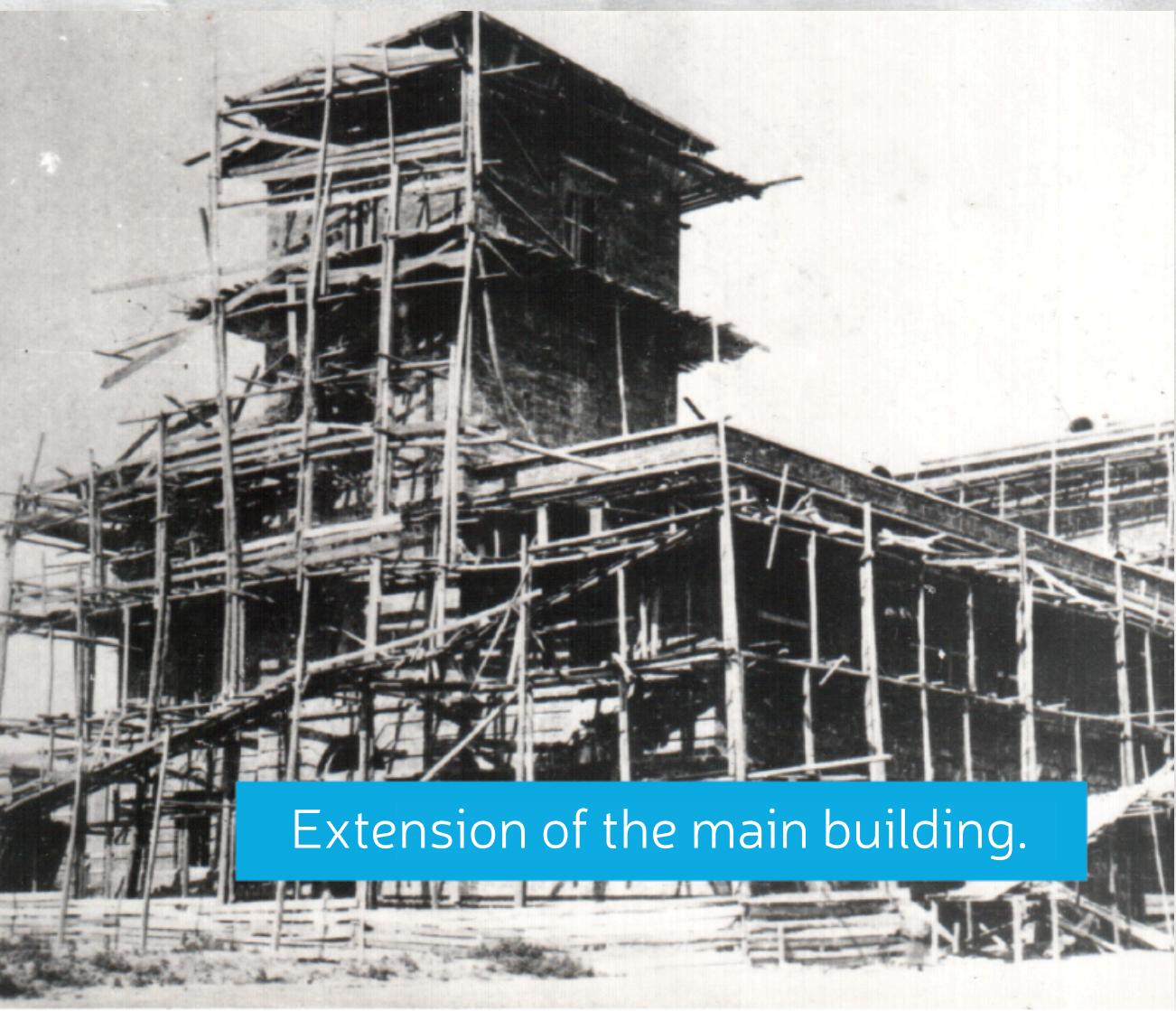
The laying of the university's foundation.

# 1912

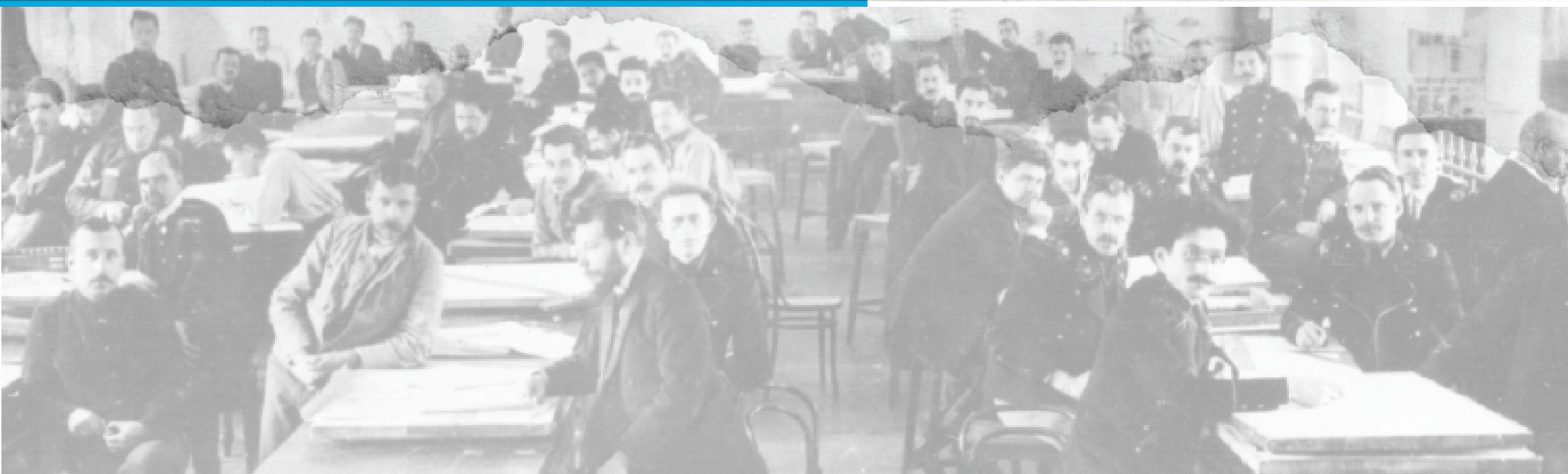
## Katerinoslav Mining Institute after Emperor Peter I

1912. Katerynoslav becomes an important **industrial center** with a population of 200,000, home to **five major metallurgical plants** with more under construction. The mining industry of the Prydniprovia region continues to grow.

**The first and still the only institution of higher education in the city — the Katerynoslav Higher Mining School — attains the status of an institute and the right to award its graduates the title of mining engineer.**  
Construction begins on an extension of the main building facing the city's central avenue, designed by the renowned architects **Oleksandr and Yevhen Bernardazzi**.



Extension of the main building.



**Katerynoslav Mining Institute** (KMI) has two departments specializing in **mining and metallurgy**, and plans are underway to open new ones — **geological exploration and mine surveying**.

14 departments have been established at the institute.

	<b>Mathematics</b>		<b>Physics</b>
	<b>Theoretical Mechanics</b>		<b>Chemistry</b>
	<b>Applied Geology</b>		<b>Electrical Engineering</b>
	<b>Civil (Building) Mechanics</b>		<b>Geodesy and Mine Surveying</b>
	<b>Mineralogy</b>		<b>Civil Engineering (Building Arts)</b>
	<b>Geology</b>		<b>Mining Engineering</b>
	<b>Applied Mechanics</b>		<b>Metallurgy</b>



**DNIPRO**  
**UNIVERSITY**  
**of TECHNOLOGY**  
**1899**

**1912**

KATERINOSLAV MINING  
INSTITUTE AFTER  
EMPEROR PETER I



*The Law on the Transformation of  
the Katerinoslav Higher Mining  
School into a Mining Institute  
dated June 17, 1912.*

**1993**

STATE MINING ACADEMY  
OF UKRAINE



**2002**

NATIONAL MINING  
UNIVERSITY



KATERINOSLAV HIGHER  
MINING SCHOOL

**1899**



DNIPROPETROVSK MINING  
INSTITUTE NAMED AFTER ARTEM

**1926**



NATIONAL MINING  
ACADEMY OF UKRAINE

**1997**



DNIPRO UNIVERSITY  
OF TECHNOLOGY

**2017**

The uninterrupted historical continuity of the legal transformation  
of the Katerinoslav Higher Mining School from its founding in 1899 to its present status as  
Dnipro University of Technology.

**125**  
YEARS  
DNIPROTECH



On the basis of the Higher Women's Courses opened in 1916 at the Katerynoslav Mining Institute, was founded:

1916

01

Classical  
University

Now - Oles Honchar Dnipro  
National University



02

Medical Academy

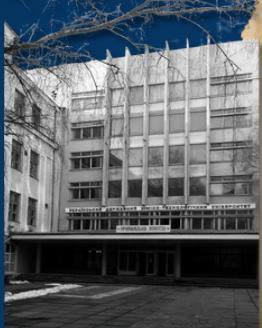
Now - Dnipro State  
Medical University



1930

03

Dnipropetrovsk  
Metallurgical  
Institute



04

Ukrainian State  
University of Chemical  
Technology -  
Dnipropetrovsk



In 1930, based on the Metallurgical and Chemical-Technological faculties of the Dnipropetrovsk Mining Institute, two separate institutes were established.

Order of the Supreme Council of the National Economy dated April 17, 1930, No. 1240

# SIGNIFICANT HISTORICAL FIGURES

# FOUNDER OF BIONICS & EARLY “FATHER OF CYBERNETICS”

Rector of Dnipro University of Technology (1920–1921). Began teaching mechanics in 1899.

# YAROSLAV HRDINA

# AHEAD OF HIS TIME

In 1910 he pioneered the idea of **calculating the motion of living organisms through theoretical mechanics.**

Introduced concepts similar to **servo-connections** later used in robotics and control theory.

Inspired by Leonardo da Vinci's studies of human and animal motion.

# “YAROSLAV THE WISE”

Created the new field  
***Dynamics of Living  
Organisms and an original  
system for teaching  
theoretical mechanics.***

Predicted the idea of setting **“will parameters”** in artificial organisms – a concept reflected today in mechatronics.



# LEV PISARZHEVSKY

## CHEMIST WITH AN ARTIST'S SOUL

Worked in Odesa, Dorpat (Tartu), and Kyiv, but Dnipro became his true home.

In 1913 joined the Mining Institute as Professor of General and Physical Chemistry..



## SCIENTIFIC AND WARTIME CONTRIBUTIONS

Developed a new method for producing **iodine from seaweed**.

During WWI organized **production of gas masks and medical supplies**.

Served as rector (1924–1926) and opened the chemical-technology department.

## BUILDER OF EDUCATION

Co-founded local educational institutions, including **women's courses and a chemical-technology institute**.



## ARTIST AT HEART

Painted throughout his life; his oil landscapes are preserved in the university museum.



# SIGNIFICANT HISTORICAL FIGURES

# SIGNIFICANT HISTORICAL FIGURES

## MIKHAILO PROTODIAKONOV

He was one of the first in the world of mining science to put forward the classification of the fortress of rocks with the help of **quantitative coefficients characterizing** this fortress.

He provided **the method for the analytical determination of its size**.

He was the first to develop **the theory of rock pressure**.

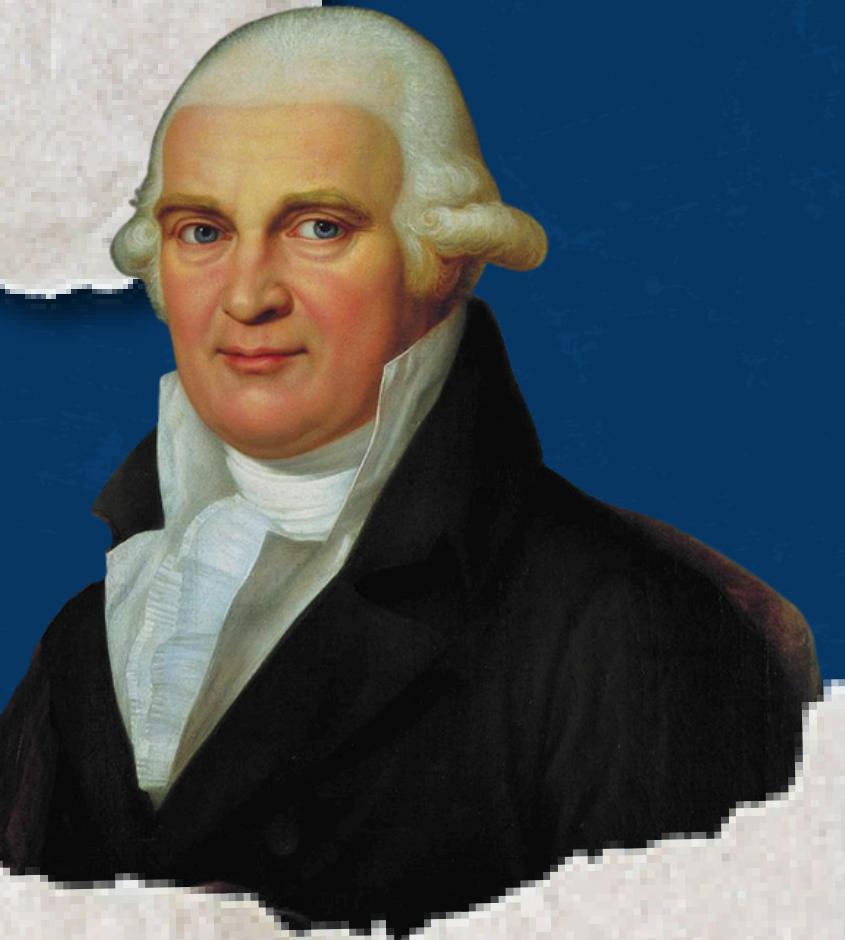


1908–1914 were the period of great pedagogical and scientific work of M. M. Protodiakonov.

He took part in the creation of the multi-volume capital work "Description of the Donetsk Basin".

# SIGNIFICANT HISTORICAL FIGURES TUBAF

## ABRAHAM GOTTLÖB WERNER



The most important scholar at the Bergakademie in its early days brought **order to the world of minerals and rock strata**.

He was appointed as a teacher at the Bergakademie in 1775.

Werner is regarded as **the founder of geognosy**, the study of the structure and construction of the earth's solid crust, which can be described as the forerunner of geology.

He **laid the foundations** on which mineralogy and geology could develop as **independent sciences**.

Under Werner, the Freiberg Mining Academy developed into an **internationally esteemed and recognised centre of mining science** with global appeal.

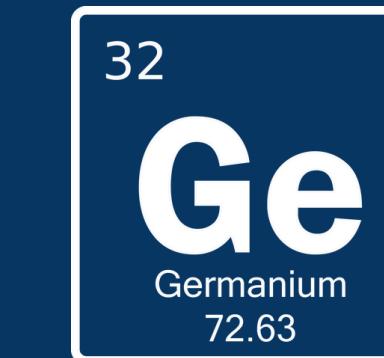
# SIGNIFICANT HISTORICAL FIGURES TUBAF

AUGUST WILHELM  
LAMPADIUS

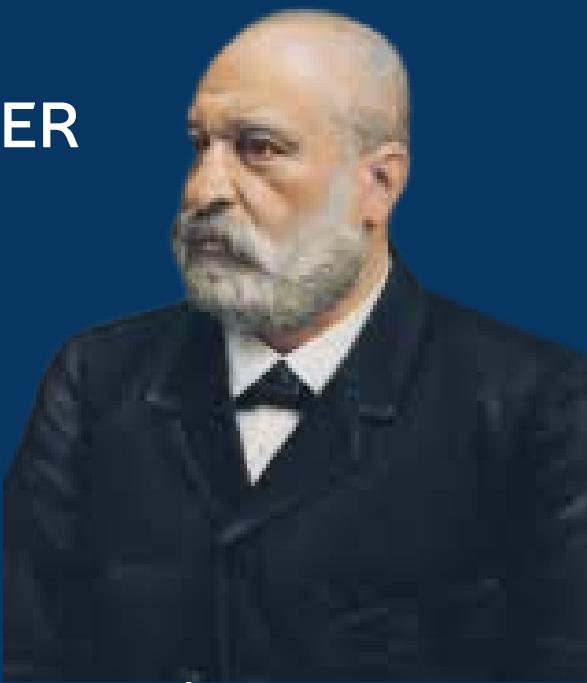
The professor was the first on the European continent to **install a gas lantern at his home** and developed **the principle of gas lighting to such an extent** that it could be used in an industrial plant for the first time.

Set up a **chemical-metallurgical university laboratory** at the Bergakademie in 1796/97.

CLEMENS ALEXANDER  
WINKLER



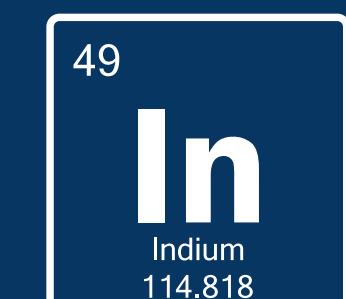
in 1886



HIERONYMUS THEODOR  
RICHTER



indium in 1863

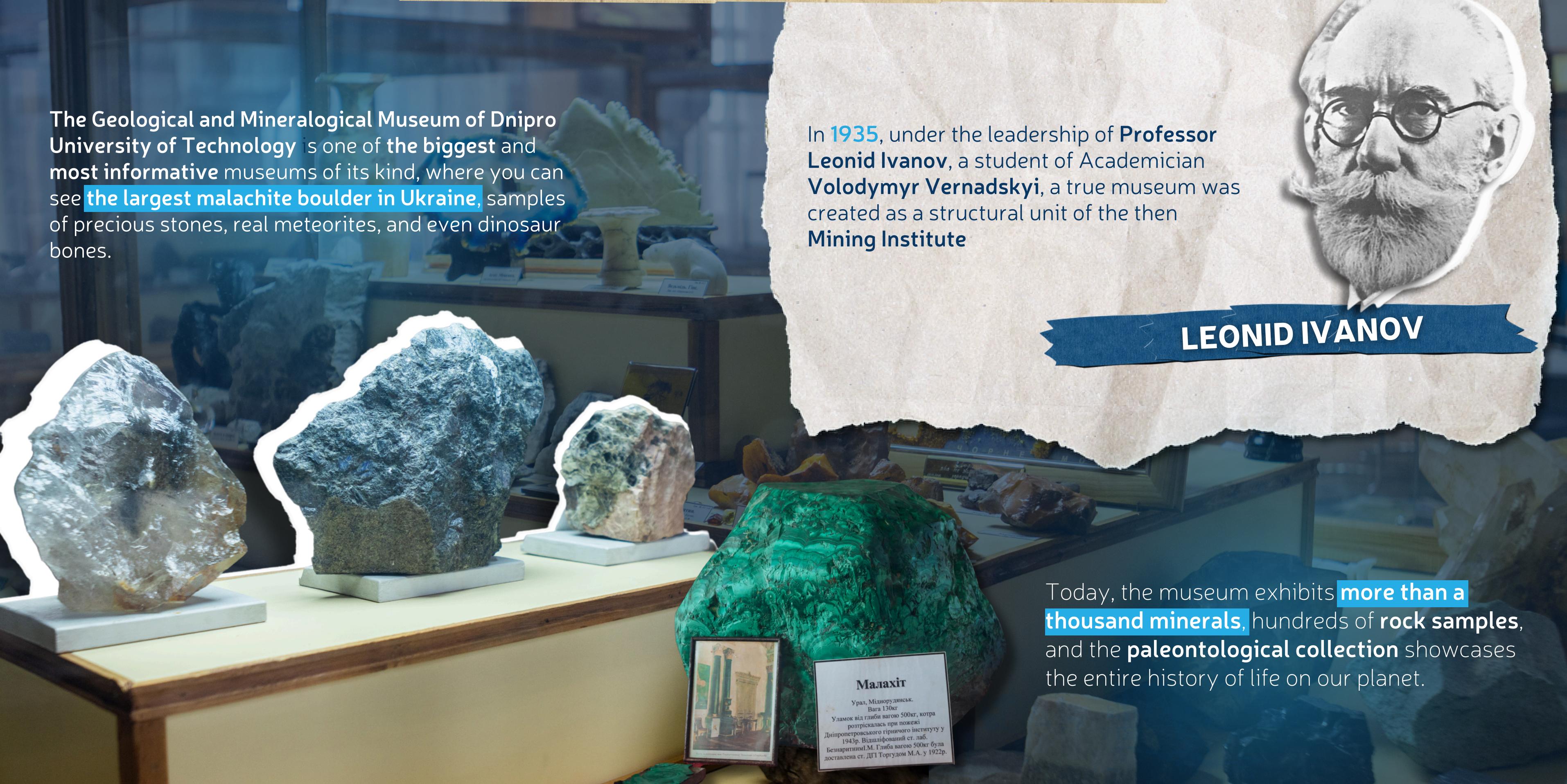


FERDINAND REICH



# GEOLOGICAL AND MINERALOGICAL MUSEUM

The Geological and Mineralogical Museum of Dnipro University of Technology is one of the biggest and most informative museums of its kind, where you can see **the largest malachite boulder in Ukraine**, samples of precious stones, real meteorites, and even dinosaur bones.



In 1935, under the leadership of **Professor Leonid Ivanov**, a student of Academician **Volodymyr Vernadskyi**, a true museum was created as a structural unit of the then **Mining Institute**

**LEONID IVANOV**

Today, the museum exhibits **more than a thousand minerals**, hundreds of **rock samples**, and the **paleontological collection** showcases the entire history of life on our planet.

# COOPERATION BETWEEN DNIPROTECH AND TUBAF



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Seit 1765.



- Long-standing partnership in **mining, geology, and engineering**.
- Shared focus on **mineral resources and sustainable technologies**.
- Joint work on modern **industrial and environmental solutions**.
- **Research** collaboration and **academic** exchanges.
- Participation in **international conferences** and joint **international projects**.
- Strengthening **scientific links** between Ukraine and Germany.
- Supporting the training of **highly qualified specialists** for the global mining sector.

# COOPERATION

XX century

2001

2004

Glück auf



A visit to the Freiberg Mining Academy by the rector of the National Mining University, academician of the NAS of Ukraine, **Professor G.G. Pivnyak**, and the first pro-rector, **Professor P.I. Pilov**. Beginning of a **new stage** of cooperation.

An **agreement** on cooperation between TUBAF and DUT.



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**DNIPRO**  
**UNIVERSITY**  
of TECHNOLOGY  
1899

# COOPERATION

2004

30 German students, postgraduates and teachers, led by the Vice-Rector of the Federal State Agricultural University and Head of the Department of Open-pit Mining **Karsten Derbenstedt**, spent a **two-week training and familiarization practice** at the mining enterprises of Ukraine.



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2005

A delegation from the National Mining University headed by the rector, academician **Gennady Pivnyak** visited TUBAF. The university staff celebrated its **anniversary**. Together with German colleagues, the **possibility of obtaining two diplomas** (German and Ukrainian) by postgraduate students of our universities as a result of defending a candidate of sciences thesis based on joint research was **discussed**. Vice-Rector of the University of Freiberg, **Professor Karsten Drebendstedt**, presented us with several exhibits from the mineralogical collection. They are now in the Historical Museum of the Dnipro University of Technology.



# COOPERATION

2006

Delegation from Germany visited us. The rector of the TUBAF **Georg Unland** and its first vice-rector **Carsten Drebendstedt** visited with the intention of cooperation. A historic moment: rectors Gennady Pivnyak and Georg Unland solemnly **sign an agreement on mutual recognition of diplomas of the National Mining University and TU Bergakademie Freiberg**. Georg Unland became an **honorary doctor of the National Mining University**.



2025



Teacher Twin Projects. The film project combined Dr. Kuvaieva's journalism and marketing class with chemistry and foundry technology students. Mixed Ukrainian-German student groups developed ten short movies that combined technical knowledge with communication skills.



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# HISTORIC PARALLELS

Berezhna Daria  
Bykova Olena  
Kalambar Krystyna  
Kalnaia Sofiia  
Kitchenkova Mariia

**Mentors**  
Tetiana Kuvaieva  
Darlene Kilian  
Dr. Mark Jacob



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