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TUBAF
Die Ressourcenuniversität.
Seit 1765.



/HISTORY PARALLELS/



Glück auf
Technische Universität
Bergakademie Freiberg

KARL-KEGEL-BAU

Національний технічний університет
Дніпропетровська політехніка

FINDINGS FROM THE AWARENESS SURVEY

A review of perceptions of Dnipro and the University Partnership

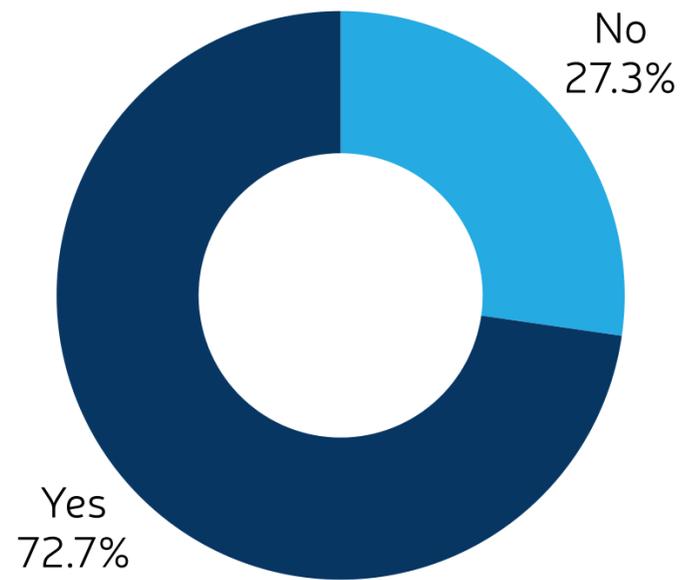
The **aim of the survey was to evaluate** the awareness of TUBAF students and staff about Dnipro, Dniprotech, and the inter-university collaboration.



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

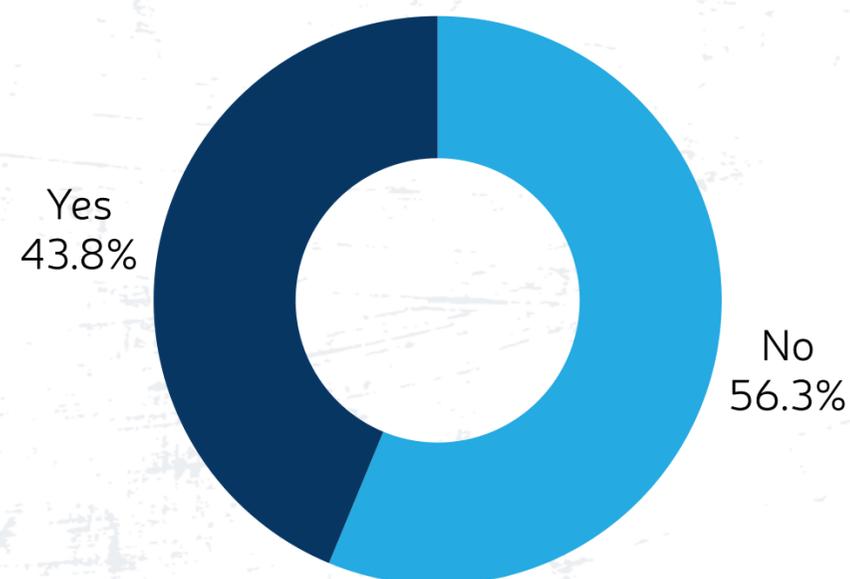
The icon for Sustainable Development Goal 16, 'Peace, Justice and Strong Institutions', featuring a white dove with an olive branch in its beak, positioned above a white gavel.



KEY AWARENESS QUESTIONS

03

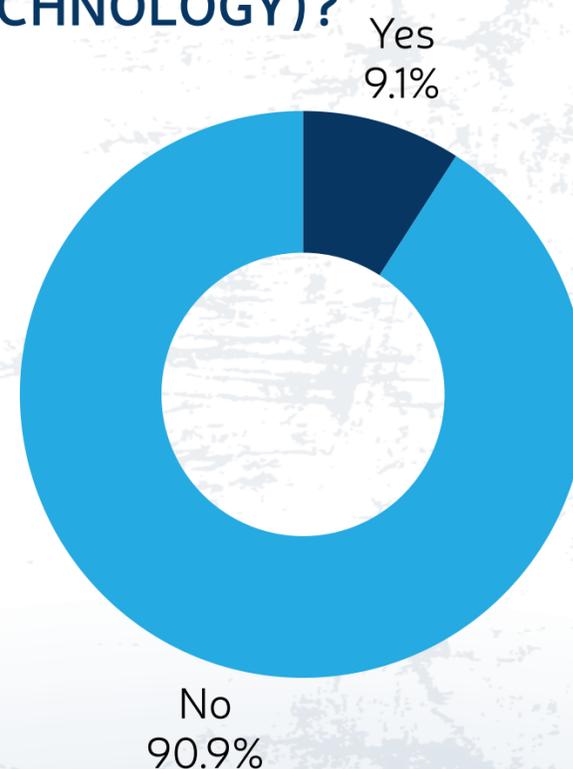
ARE YOU FAMILIAR WITH DNIPRO?



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?



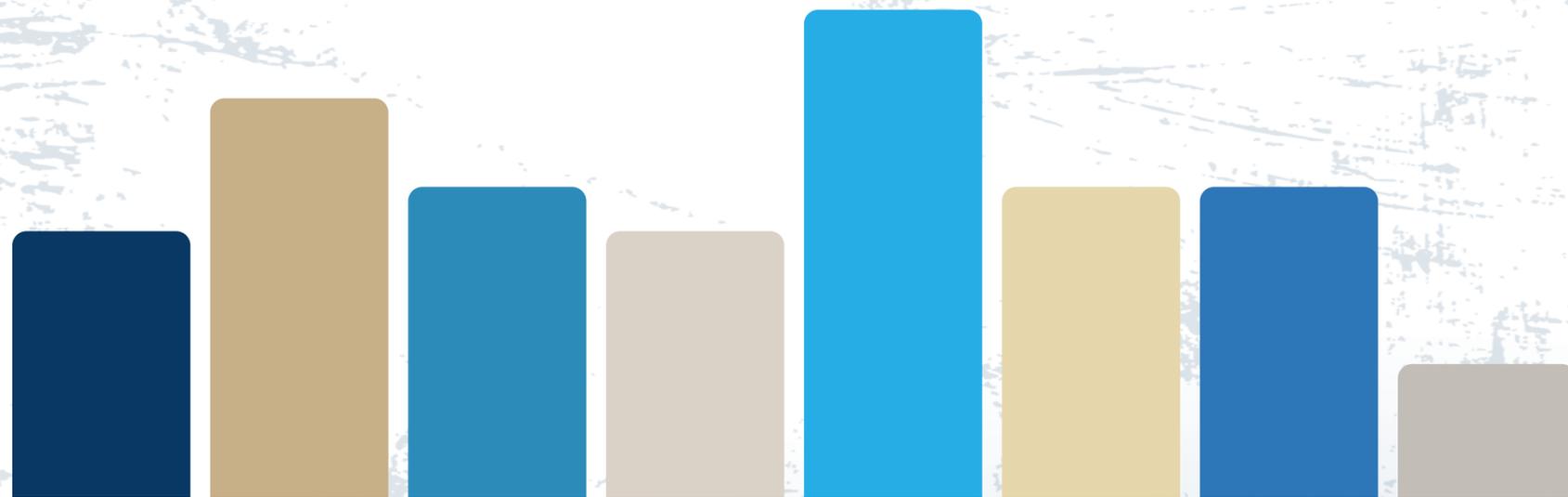
Only two respondents selected any option, indicating almost no awareness of the cooperation.

KEY AWARENESS QUESTIONS

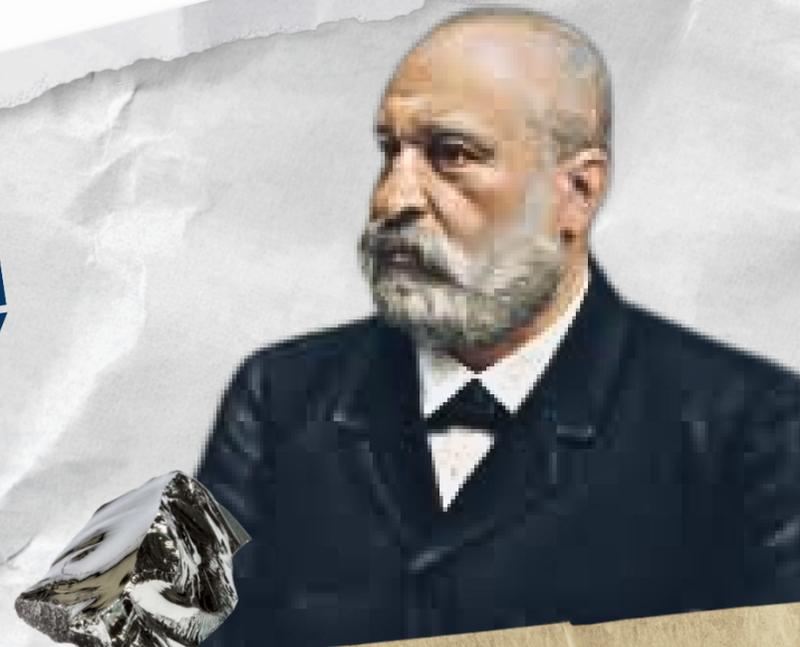
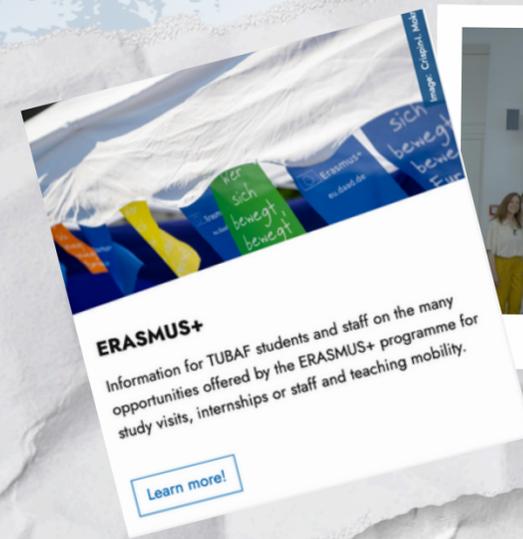
06

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.



Ge
Germanium
72.63

CLEMENS ALEXANDER WINKLER

In
Indium
114.818

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 Yavornytskyi 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**"

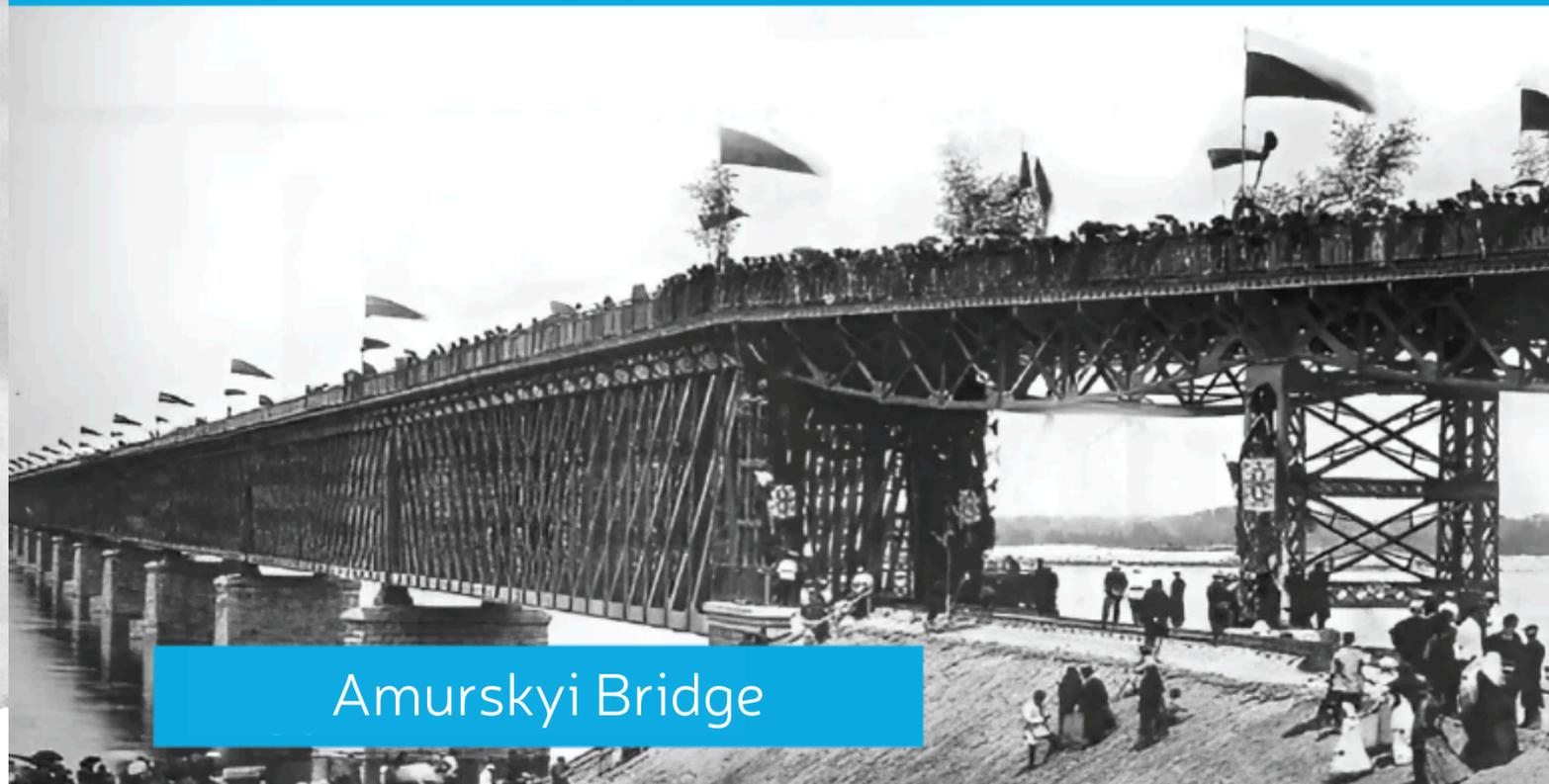
1899

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.

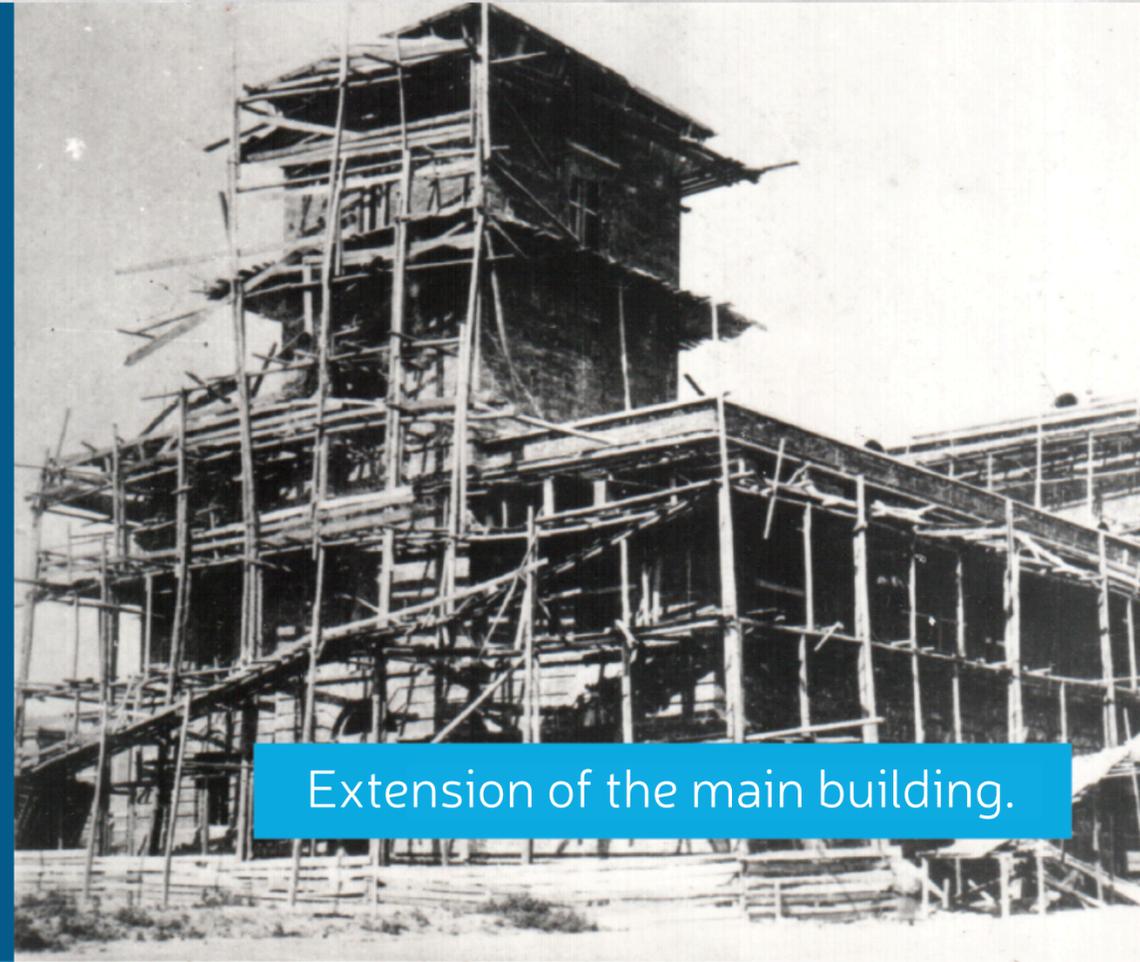
1912

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.

- | | |
|---|---|
|  Mathematics |  Physics |
|  Theoretical Mechanics |  Chemistry |
|  Applied Geology |  Electrical Engineering |
|  Civil (Building) Mechanics |  Geodesy and Mine Surveying |
|  Mineralogy |  Civil Engineering (Building Arts) |
|  Geology |  Mining Engineering |
|  Applied Mechanics |  Metallurgy |



1912

KATERINOSLAV MINING INSTITUTE AFTER EMPEROR PETER I



The Law on the Transformation of the Katerynoslav 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 Katerynoslav Higher Mining School from its founding in 1899 to its present status as Dnipro University of Technology.



DNIPRO UNIVERSITY OF TECHNOLOGY THE PRIMARY SOURCE OF HIGHER EDUCATION IN REGION



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

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

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

1916

01

Classical University

Now - Oles Honchar Dnipro National University



02

Medical Academy

Now - Dnipro State Medical University



1930

04

Ukrainian State University of Chemical Technology - Dnipropetrovsk

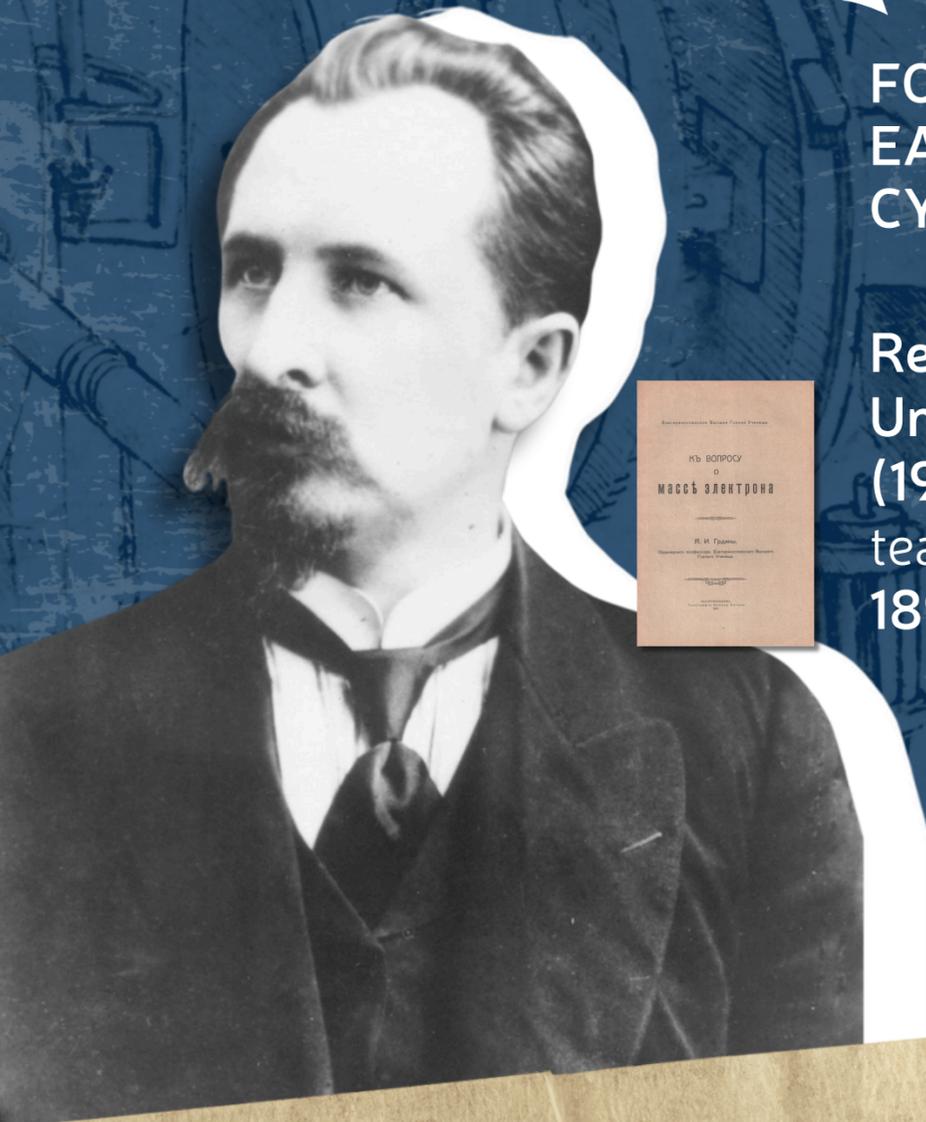


03

Dnipropetrovsk Metallurgical Institute



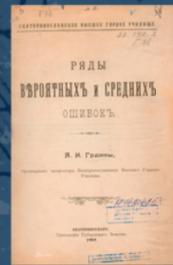
SIGNIFICANT HISTORICAL FIGURES



YAROSLAV HRDINA

FOUNDER OF BIONICS & EARLY "FATHER OF CYBERNETICS"

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



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.

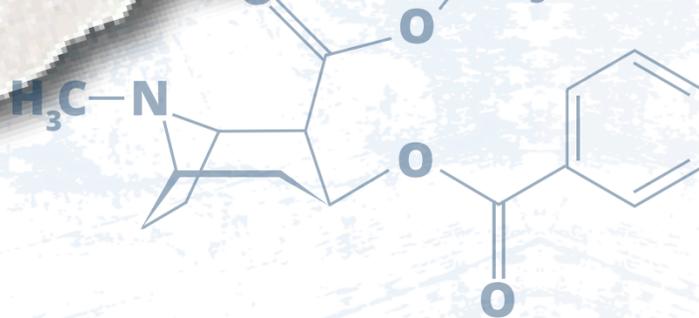
"YAROSLAV THE WISE"

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



BUILDER OF EDUCATION

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



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.

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..



ARTIST AT HEART

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





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 GOTTLOB 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

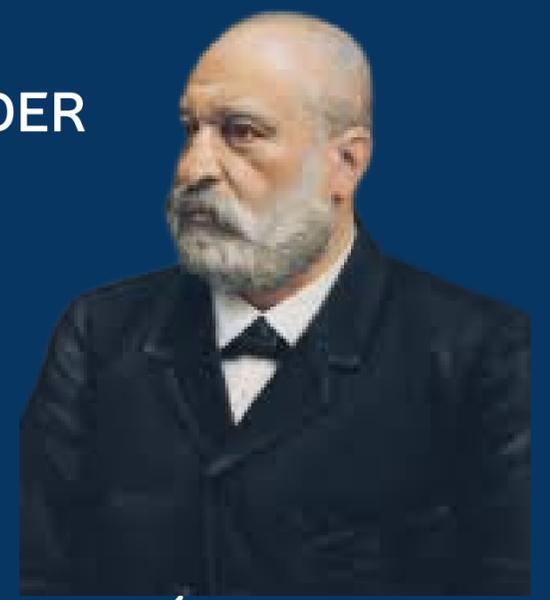
The professor was the first on the European continent to **install a gas lantern at his home** and developed **the principle of gas lighting to such an extent** that it could be used in an industrial plant for the first time.

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



AUGUST WILHELM LAMPADIUS

CLEMENS ALEXANDER WINKLER



in 1886

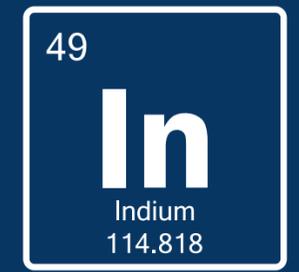


HIERONYMUS THEODOR RICHTER

FERDINAND REICH



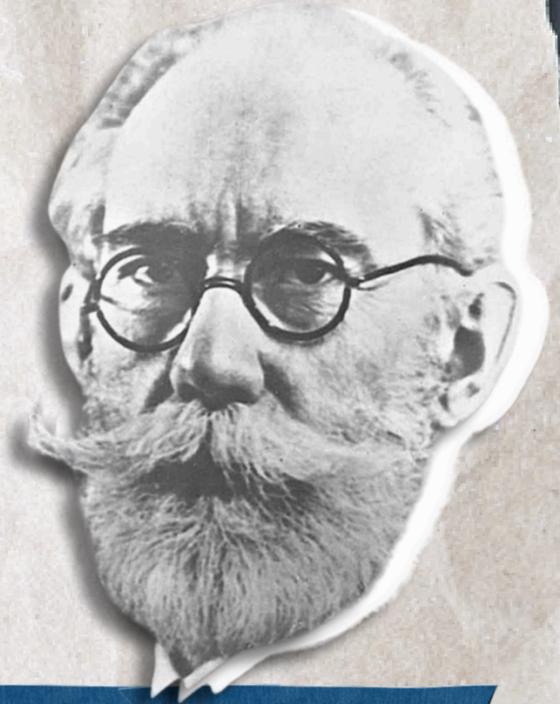
indium in 1863



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.



Малахіт

Урал, Міднорудняськ.
Вага 130кг
Уламок від глиби вагою 500кг, котра розтріскалась при пожежі розтріскалась при пожежі Дніпропетровського гірничого інституту у 1943р. Відшліфований ст. лаб. Безаритнимі.М. Глиба вагою 500кг була доставлена ст. ДПТ Торгудом М.А. у 1922р.

COOPERATION BETWEEN DNIPROTECH AND TUBAF



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- 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.

Glück auf

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COOPERATION



XX century

Teachers and students of the Katerynoslav Higher Mining School often underwent educational and scientific internships in **Freiberg**.



2001

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.



2004

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



COOPERATION



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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**.



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 Drebenstedt**, presented us with several exhibits from the mineralogical collection. They are now in the Historical Museum of the Dnipro University of Technology.



COOPERATION

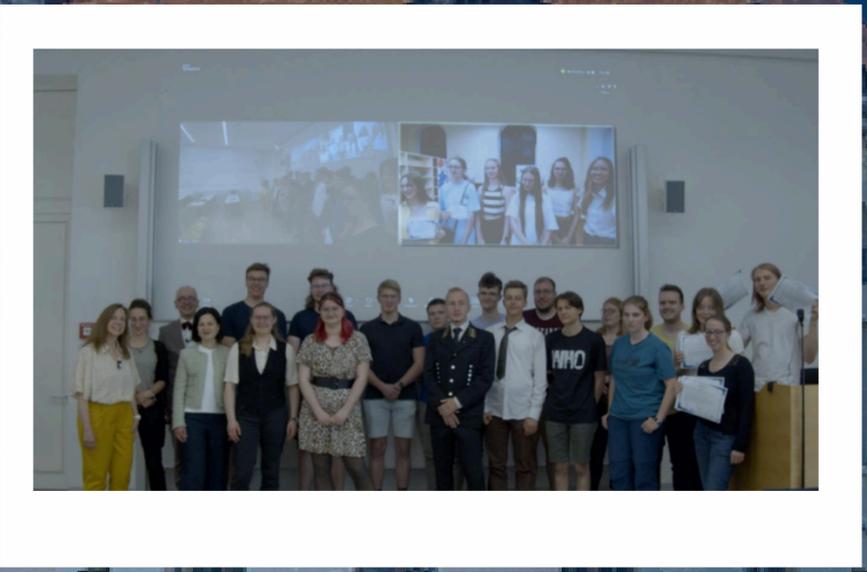


2006

Delegation from Germany visited us. The rector of the TUBAF **Georg Unland** and its first vice-rector **Carsten Drebenstedt** 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 Bergademie Freiberg.** Georg Unland became an **honorary doctor of the National Mining University.**



Glück auf
2025
Universität
Bergakademie Freiberg



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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