



# DEVELOPMENT PHILOSOPHY OF STATE UNIVERSITY OF ECONOMICS AND TECHNOLOGY IN START-UPS AND PROJECTS

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STATE UNIVERSITY  
OF ECONOMICS  
AND TECHNOLOGY

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# SUET START-UP: MANAGERIAL CONCEPT PROCESSES



INSTITUTIONS



PROFESSIONAL COLLEGES



STUDENTS



SPECIALTIES



EDUCATIONAL PROGRAMS



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**SUSTAINABLE DEVELOPMENT GOALS**



THE STATE UNIVERSITY OF ECONOMICS AND TECHNOLOGY

# "UNIVERSITY-PROCESSES-PRODUCTS"

## PRODUCTS

### BASIC PROFESSIONAL COMPETENCIES (HARD SKILLS I SOFT SKILLS)

- Bachelor's Qualification ("Professional Junior Bachelor", the "Bachelor's educational degree")
- "Master's Qualification (the "Master's educational degree")
- Doctor of Philosophy (PhD)

### SUPER-PROFESSIONAL COMPETENCIES

- International academic mobility of students and staff
- Informal education (trainings, workshops, master classes, short courses)
- Certificate programs
- Joint studies
- Internships
- University sports (strategic partner of FC "Kryvbas")
- Concept "Art Institute" (development of creative skills)

### SOCIAL RESPONSIBILITY AND INFORMATION COMMUNICATION "Legal Clinic"

- Legal clinic
- Centre of psychological help and social adaptation
- Centre of veterans' development
- Third-age University
- Inclusive and partner education
- Concept project "Open University (coworking, hubs, popularization of mass sports/healthy way of life, open lectures and communal space)"
- Informational content (website / telephony / mailing / e-workflow / social media / public relations)

### MANAGEMENT OF PERSONNEL AND BUSINESS PROCESS

- Diversification of income sources
- Education quality standards
- Career development
- Motivation
- Responsibility centers concept
- Grants, charitable contributions, attracting other sources of income

### CLIENT-ORIENTED COOPERATION





- Formation of educational plans on the order of business structures (including the licensing of professions)
- The concept's realization of dual education or "the parallel learning", beginning with the "bachelor's", "master's" educational degrees (the correlation of the "learning process - practice" 5: 1 or 3: 3)
- Open format of the current and final control of students' knowledge
- Opportunities for realization of the corporative educational programs at the University
- Packages of the individual proposals of the educational / scientific / commercial products (within the limits of the Resolution List of the Ukraine Cabinet of Ministers № 796) – the concept "University of the Entrepreneurship Type"
- Financing programs for training of professionals / the realization of SRW



### SCHOOL CAREER ENGINEERING

- Cooperation with academic lyceums
- Training courses for teachers and pupils
- Annual events matrix
- STEM-education
- Participation in Ed Camp line of events



## SUET START-UP: YOUR NEW UNIVERSITY

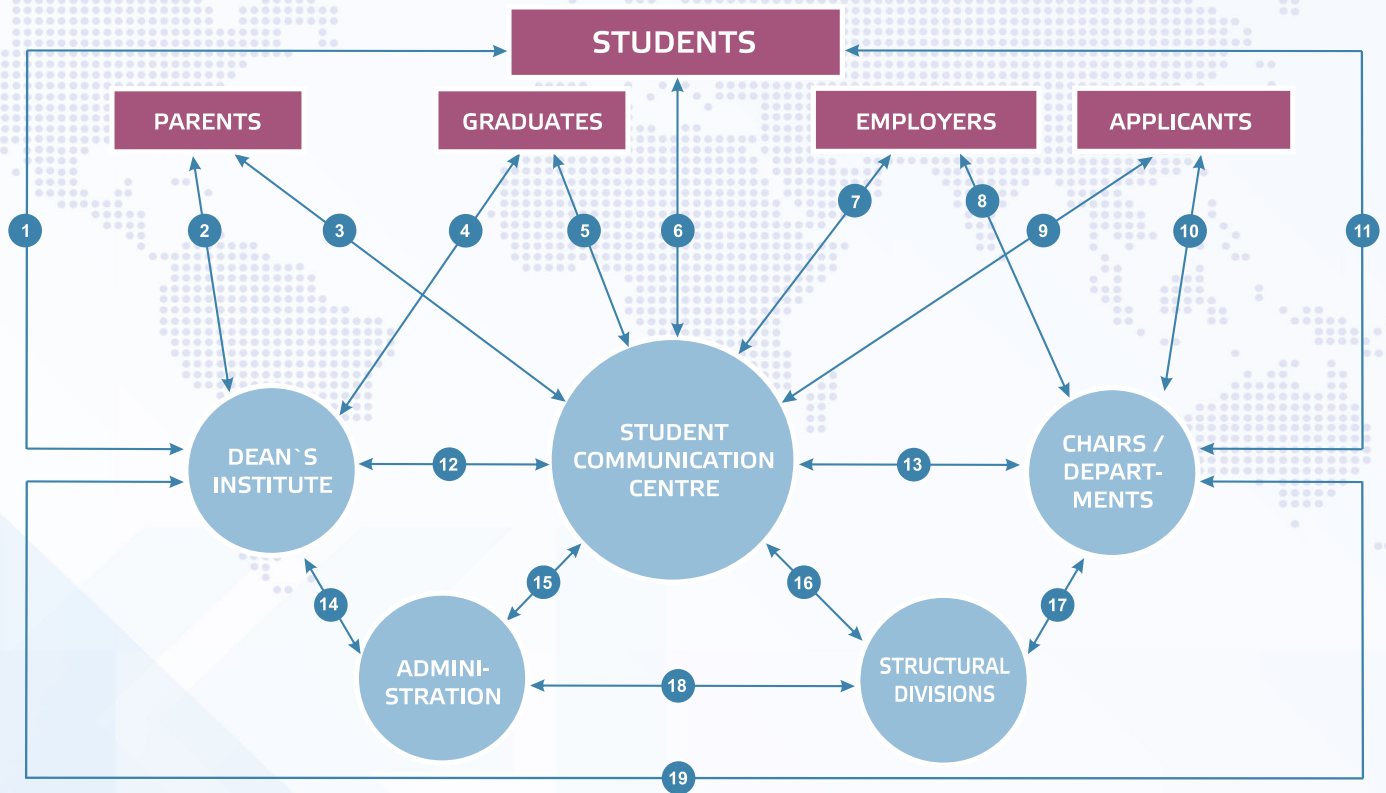
| STRUCTURAL UNIT   | SPECIALTIES   | BACHELOR | MASTER | MASTER'S PROGRAMS  | PhD |
|---|---|----------|--------|--|-----|
|  <b>IEBO</b> INSTITUTE OF ECONOMICS AND BUSINESS EDUCATION | MANAGEMENT  | ●        | ●<br>● | Management<br>Management of Business Administration (MBA)          | ●   |
|   | MANAGEMENT OF SOCIO-CULTURAL ACTIVITIES                             | ●        |        |  |     |
|   | MARKETING   | ●        | ●      | Marketing  |     |
|   | ECONOMICS   | ●        | ●      | Economics  | ●   |
|   | ACCOUNTING AND TAXATION   | ●        | ●      | Accounting and taxation  |     |
|   | FINANCE, BANKING, INSURANCE AND STOCK MARKET                        | ●        | ●      | Finance, banking, insurance and stock market                       |     |
|   | ENTREPRENEURSHIP AND TRADE  | ●        |        |  |     |
|   | COMPUTER SCIENCES   | ●        |        |  |     |
|   | INTERNATIONAL RELATIONS   |          | ●      | International communications                                       |     |
|   | INTERNATIONAL COMMUNICATIONS AND JOURNALISM                         | ●        |        |  |     |
|   | INTERNATIONAL ECONOMIC RELATIONS                                    | ●        | ●      | International economic relations                                   |     |
|  <b>Ti</b> TECHNOLOGICAL INSTITUTE                         | INDUSTRIAL MACHINERY ENGINEERING                                    | ●        | ●      | Industrial machinery engineering                                   | ●   |
|   | METALLURGY  | ●        | ●      | Metallurgy   |     |
|   | ELECTRICAL ENERGISTICS, ELECTRICAL ENGINEERING AND ELECTROMECHANICS | ●        | ●      | Electrical energetics, electrical engineering and electromechanics |     |
|   | AUTOMATION, COMPUTER-INTEGRATED TECHNOLOGIES AND ROBOTICS           | ●        | ●      | Automation, computer-integrated technologies and robotics          |     |
|   | CHEMICAL TECHNOLOGY AND ENGINEERING                                 | ●        | ●      | Chemical technology and engineering                                |     |
|   | MINING  | ●        |        |  |     |
|  <b>OIT</b> FACULTY OF INFORMATION TECHNOLOGY            | SOFTWARE ENGINEERING  | ●        | ●      | Software engineering   |     |
|  <b>IOI</b> LAW INSTITUTE                                | LAW   | ●        | ●      | Law  |     |
|   | PUBLIC MANAGEMENT AND ADMINISTRATION                                | ●        | ●      | Public management and administration                               |     |
|   | SECONDARY EDUCATION (HISTORY, LAW)                                  | ●        |        |  |     |
|   | HISTORY AND ARCHAEOLOGY   |          | ●      | History  |     |
|   | PSYCHOLOGY  | ●        | ●      | Psychology   |     |

| STRUCTURAL UNIT  | SPECIALTY   | PROFESSIONAL JUNIOR BACHELOR <sup>o</sup> |
|--|---|---|
|  <b>TOK</b> TECHNOLOGICAL VOCATIONAL COLLEGE                | PROFESSIONAL EDUCATION: ELECTRICAL POWER ENGINEERING, ELECTRICAL ENGINEERING AND ELECTROMECHANICS | ●   |
|  | ECONOMICS   | ●   |
|  | ENTREPRENEURSHIP AND TRADE  | ●   |
|  | SOFTWARE ENGINEERING  | ●   |
|  | INDUSTRIAL MECHANICAL ENGINEERING   | ●   |
|  | METALLURGY  | ●   |
|  | ELECTRICAL POWER ENGINEERING, ELECTRICAL ENGINEERING AND ELECTROMECHANICS                         | ●   |
|  | AUTOMATION AND COMPUTER-INTEGRATED TECHNOLOGIES   | ●   |
|  | CHEMICAL TECHNOLOGIES AND ENGINEERING   | ●   |
|  | HEAT POWER ENGINEERING  | ●   |
|  | MINING  | ●   |
|  <b>OKET</b> VOCATIONAL COLLEGE OF ECONOMICS AND TECHNOLOGY | INFORMATION, LIBRARY AND ARCHIVAL WORK  | ●   |
|  | ACCOUNTING AND TAXATION   | ●   |
|  | FINANCE, BANKING, INSURANCE AND STOCK MARKET  | ●   |
|  | ENTREPRENEURSHIP AND TRADE  | ●   |
|  | FOOD TECHNOLOGIES   | ●   |

<sup>o</sup> Educational program



# SUET START-UP: STUDENT COMMUNICATION CENTER

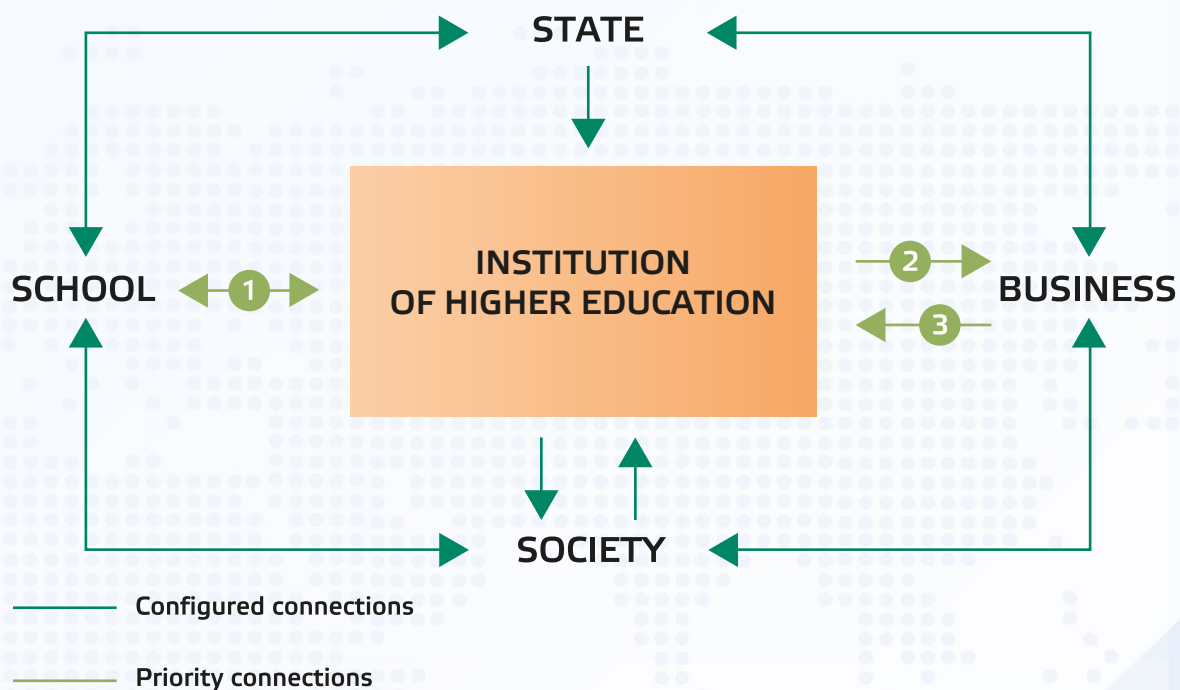


- |   |                                       |
|---|---------------------------------------|
| 1 EDUCATIONAL TRAJECTORY, ACADEMIC MOBILITY                   | 11 TRAINING, SCIENCE, PRACTICE        |
| 2 TRAINING OF STUDENTS  | 12 MONITORING OF TRAINING PROCESS     |
| 3 STUDENT EDUCATION   | 13 ADMINISTRATION OF TRAINING PROCESS |
| 4 ADMINISTRATIVE SERVICES                                     | 14 MANAGEMENT (TACTICAL)              |
| 5 TRADITIONS, LIFELONG EDUCATION                              | 15 MANAGEMENT (OPERATIONAL)           |
| 6 ADMINISTRATIVE SERVICES                                     | 16 FINANCE, DOCUMENT FLOW             |
| 7 ADMINISTRATION OF TRAINING PROCESS, ADMINISTRATIVE SERVICES | 17 ENSURING OF TRAINING PROCESS       |
| 8 EMPLOYMENT, PRACTICE  | 18 MANAGEMENT                         |
| 9 CONNECTION WITH REAL SECTOR                                 | 19 SCIENCE, DEVELOPMENT, STRATEGY     |
| 10 CAREER GUIDANCE, THE ENTRANCE CAMPAIGN                     |                                       |

STAKE HOLDERS  
 FUNCTIONS  
 SUBDIVISIONS

"The Institute for a student" is the concept of communications management of the STATE UNIVERSITY OF ECONOMICS AND TECHNOLOGY

## SUET START-UP: ACADEMIC CHAIN OF VALUES



### PROCESS

- 3 Operating at the expense of the investment package rather than taxpayers
- 2 Formation of competences for business ("business" means employers and the whole set of consumers of University products)
- 1 Creation of a roadmap for the implementation of Ukrainian school graduate potential



# EXPERIENCE OF TEAM COOPERATION

## IMPLEMENTED PROJECTS

- Experience Participation in the project of the International Bank for Reconstruction and Development TF0A3307 dated 20.09.2016 "Overcoming the consequences of the conflict, a pilot project for recovery and capacity building". Within the framework of the project, the University team implemented a subproject "Restoration of social infrastructure for internally displaced persons, ATO participants, their families, and the disabled" in the amount of USD 133,544.70. The subproject was implemented in accordance with the rules of the International Bank for Reconstruction and Development.

Cooperation with the Intergovernmental International Organization "International Organization for Migration" from 2018 to the present.

- Cooperation with the Branch of the independent private and non-profit organization "ACTED" in Ukraine, we have been cooperating since May 2022. The total amount of assistance as of February 2024 is more than 114,000.00 USD.

- Cooperation with public organizations, humanitarian missions and charitable foundations: NGO "League of KEI Alumni" since 2014, NGO "Center for Sustainable Development and Regional Initiatives", cooperation since 2020, CO "Together with You", cooperation since 2022, CO "Proliska", cooperation since 2022, CO "Smile of Ukraine", cooperation since 2023, CO "Angels of Salvation", cooperation since January 2024.





# DATA-DRIVEN CONSTRUCTION INNOVATION HUB



## WHAT IS IT?

LID HUB – a cluster of the world's best center for innovation and education in the construction industry



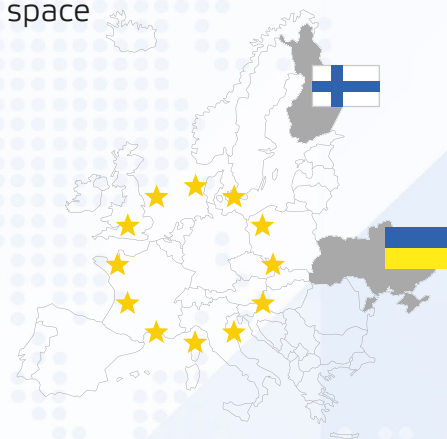
## WHERE IS IT?

The city of Kryvyi Rih is an investment entry point for the central region of Ukraine



## WHY IS IT NEEDED?

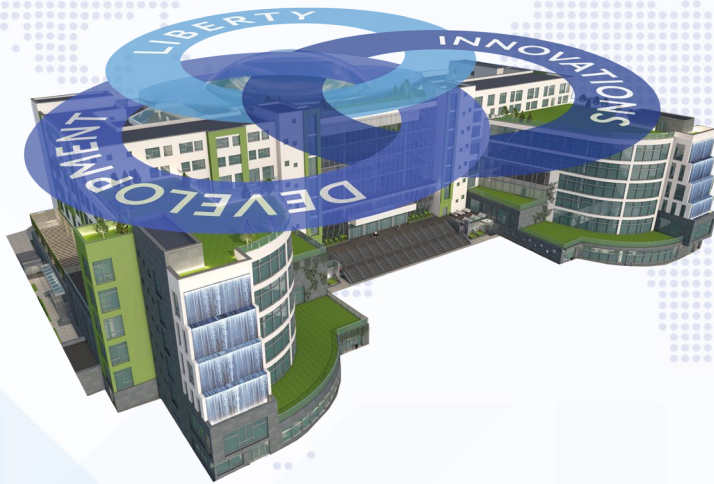
Driver of integration into the European space



- MARCH 5, 2025** Submitted a joint application to the EU funding programme ERASMUS-EDU-2025 Bimpace
- SEPTEMBER 19, 2024** European Design Upgrade 3.0
- MAY 31, 2024** Joint webinar "Building a smart future together"
- SEPTEMBER 17, 2023** SUET became the first TITAN organisation Member
- SEPTEMBER 12, 2023** Presentation of the LID HUB project with Metropolia University of Applied Sciences
- MAY 12, 2023** Memorandum signed with Metropolia University of Applied Sciences

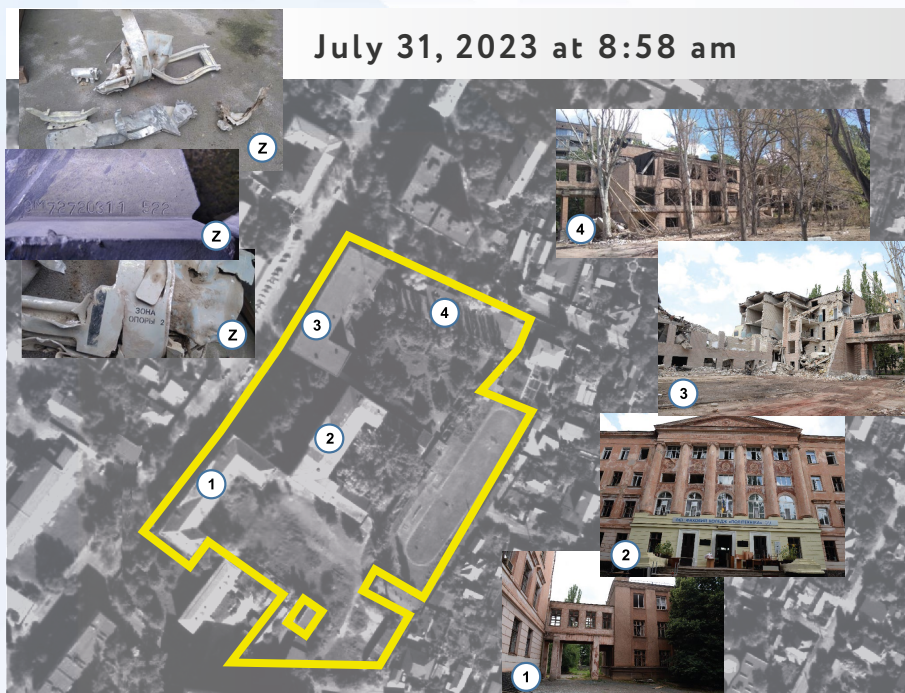


## IMPLEMENTATION OF THE EDUCATIONAL AND RESEARCH COMPONENT OF THE LED-HUB THROUGH PARTICIPATION IN ERASMUS+ PROGRAMS, ETC.



- ① Research, development of prototypes in the fields of smart construction, mining and metallurgical industry in laboratories by research groups of partner universities and representatives of IT, Construction Business, mechatronics
- ② Joint operation by a network of partners of Art spaces and educational, sports and rehabilitation locations for training, development, cross-cultural exchange
- ③ Joint operation by a network of partners (universities, community, business partners) and outsourcers of public and business spaces
- ④ Participation in international research projects (Erasmus+) BIM – Harmonization, Modernization, and Professional Accreditation of Competencies and Training (Bimpace) in the field of BIM modeling. The result of this project is a modern, relevant and interactive environment for training specialists with relevant competencies in the field of BIM modeling

## HIT BY A RUSSIAN BALLISTIC MISSILE OF THE ISKANDER COMPLEX



47°54'42"N 33°20'57"E

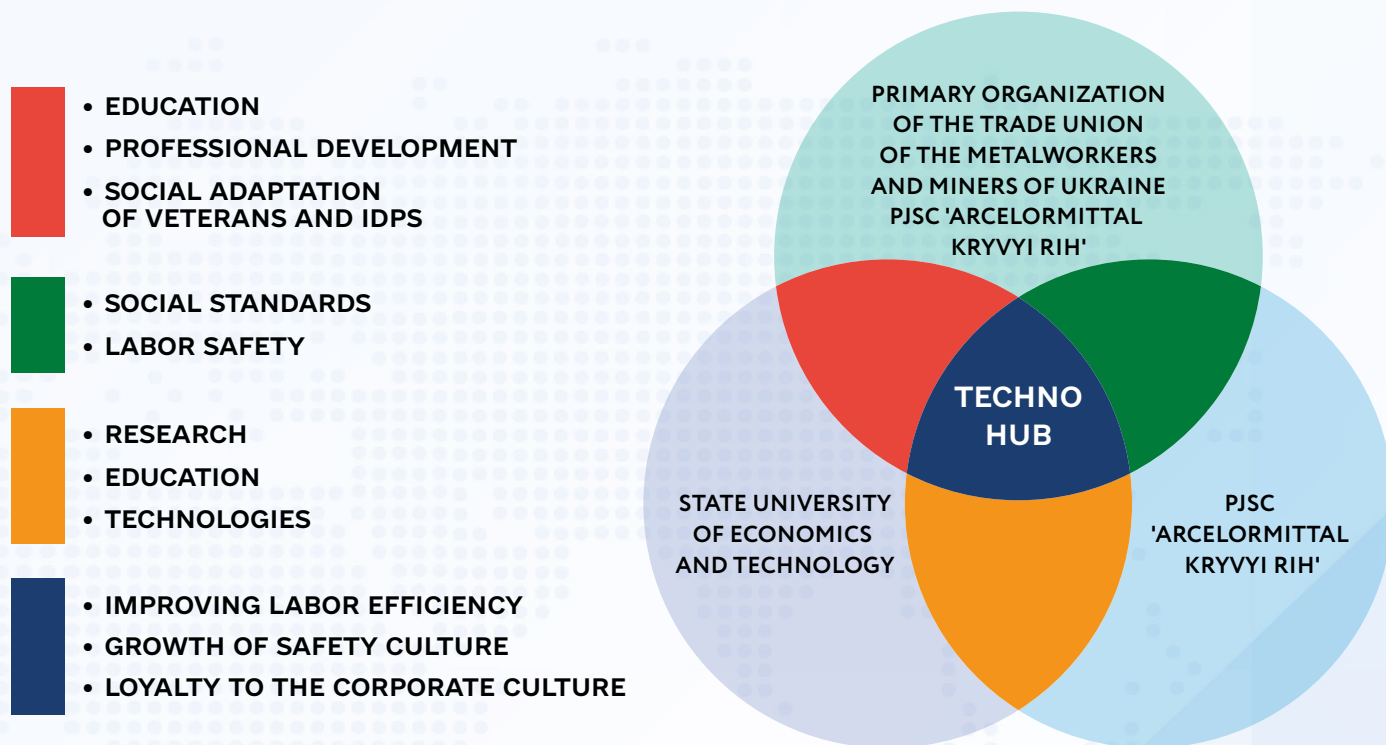
Kryvyi Rih,  
Poshtovy avenue, 64-68

### Legend:

- The territory of the State University of Economics and Technology and Campus, where 4 educational buildings are located
- ① Educational building No.1
- ② Educational building No.7
- ③ Laboratory building
- ④ Workshop building
- ⓧ Debris from a Russian missile found at the impact site on campus



## CONCEPT OF PUBLIC-PRIVATE PARTNERSHIP



## TECHNO HUB – RENOVATION OF TECHNOLOGICAL INSTITUTE OF SUET





## CAMPUS A AND C OF THE TECHNO HUB PROJECT

### CAMPUS A functionality



- CLASSROOMS
- LABORATORY OF STANDARDIZATION, TECHNICAL MECHANICS
- LABORATORY FOR ASSEMBLY, REPAIR AND INSTALLATION OF METALLURGICAL EQUIPMENT
- LABORATORY OF LIFTING AND TRANSPORTING MACHINES AND HYDRAULICS
- LABORATORY FOR METAL PROCESSING
- LABORATORY OF BLAST FURNACE FEEDING AND LOADING SYSTEMS, BLAST FURNACE SMELTING TECHNOLOGY
- LABORATORY OF STEELMAKING PROCESSES
- LABORATORY OF MATERIALS SCIENCE
- LABORATORY OF CHEMICAL TECHNOLOGY AND ENGINEERING
- LABORATORY OF ELECTRICAL ENGINEERING AND ELECTRONICS
- LABORATORY OF MECHATRONICS
- LABORATORY OF PHYSICS

## CAMPUS B, D AND DUAL-PURPOSE BUILDING (SHELTER) E OF THE TECHNO HUB PROJECT

### CAMPUS C functionality



- LABORATORY FOR THE PREPARATION AND PROCESSING OF CHARGE MATERIALS OF THE MINING AND METALLURGICAL COMPLEX
- MOLDING AND CASTING LABORATORY
- LABORATORY OF SINTERING PROCESSES
- METAL PROCESSING SECTION BY CUTTING
- ASSEMBLY AREA
- WELDING AREA
- HEAT TREATMENT SECTION
- DESIGN BUREAU

### CAMPUS B functionality



- CAMPUS FOR TEMPORARY ACCOMMODATION OF STUDENTS AND INVITED RESEARCHERS AND TEACHERS, DELEGATIONS

### CAMPUS D functionality



- ECOSPACE (COFFEE SHOP, LOUNGE AREA)
- LIBRARY
- INNOVATESPACE (CONFERENCE HALL)

### DUAL-PURPOSE functionality (shelter) E



- SHELTER
- UNDERGROUND PARKING LOT



## SUET START-UP: UNITY OF THE COMPANY, TRADE UNION AND UNIVERSITY – THE NEW FACTORY PROJECT



"The New Factory is a modern industrial facility of the future with a new production culture and prospects for young people, which is designed to solve not only technological problems but also the environmental component.

PJSC ArcelorMittal Kryvyi Rih, in partnership with the State University of Economics and Technology, has been implementing an educational project for three years (since 2021), within the framework of which graduates of lyceums, colleges and university students have mastered a unique educational program at the university, funded by the company, which involves the best domestic and foreign research and teaching staff. The project has trained and is currently training specialists in shortage specialties in the real sector of the economy, namely metallurgy, industrial engineering, power engineering, electrical engineering and electromechanics, as well as automation and computer-integrated technologies.

The dual education project is an example of the development of high-tech engineering education. It is the graduates of the SUET who will form a youthful, ambitious, extraordinary and future-oriented team of specialists for the new pelletizing plant. In addition, all the students and teachers involved in the project are united in being members of the largest Trade Union of Metallurgists and Miners of Ukraine, ArcelorMittal Kryvyi Rih.



# STEM & SCHOOL DAY

З Е Л Е Н І Т Е Х Н О Л О Г І І



## PROJECT PARTICIPANTS

### PROJECT “STEM & SCHOOL DAY”

is aimed at popularizing natural sciences by creating an exciting educational environment *using real examples from production and everyday life* to demonstrate the application of physical and chemical laws, enabling students to use theoretical knowledge through laboratory experiments, and drawing attention to science and technology

- RUDOMAIN
- STATE UNIVERSITY OF ECONOMICS AND TECHNOLOGY
- AALTO UNIVERSITY *FINLAND*
- EXECUTIVE COMITEE OF THE DOVHYNTSIV DISTRICT COUNCIL
- KRYVYI RIH LYCEUM №24
- KRYVYI RIH LYCEUM №81
- KRYVYI RIH LYCEUM №129



РУДОМАЙН



ДЕРЖАВНИЙ  
УНІВЕРСИТЕТ  
ЕКОНОМІКИ  
І ТЕХНОЛОГІЙ



Aalto University



Довгинцівський  
район





# SUET START-UP: SUET ACADEMIC BENCHMARKING IS THE FOUNDER OF THE INTERNATIONAL SCIENTIFIC CONGRESS «SOCIETY OF AMBIENT INTELLIGENCE»



## ABOUT CONGRESS:

### 01. OUR MISSION

The organization of many-sided platform for the cooperation of the academic association and business with the purpose of generation of new knowledge and exchange of information and advanced experience, dealing with modern tendencies, key factors and peculiarities of development and technologies of the information society on conditions of the digital economy's globalization.

### 02. WHAT WE DO?

The work of the Congress is planned in the format of panel discussions, according to the directions. The arrangement of discussion panels according to the directions accepts inviting speakers from academic and business spheres. The realization of the communication format "business – universities – schools".

### 03. WHO SHOULD ATTEND?

Local authorities  
Business community  
Sustainability professionals  
University community  
Studentship  
Third-sector organisations

## CONGRESS CONCEPT:

- Simultaneous holding of the Congress several panels in different countries on November, 2023, in the frames of panel discussions, according to the directions;
- Realization of the discussion panels, according to the directions, accepts the invitation of speakers from the academic and business environment;
- Holding the international competition of student's project (case solution contest) in the directions of the Congress. The competition held in two stages: the 1-st stage (national) is the competition of the research projects / business ideas; the 2-nd stage (international) is the competition for the solution of cases, being presented by the partner-companies of the Congress (the Projects Competition)
- Organization of the platform for the exchange of experience between legal clinics of Ukraine and Poland, the study of the best foreign and national practices of the legal clinics, related to the various directions of legal education;
- Realization of the communications format "Business-Universities-Schools".



## SUET START-UP: SAP University Alliances



In 2024, the State University of Economics and Technology joined the global SAP University Alliances program, which means a partnership with SAP.



The goal of SAP University Alliances is to develop cooperation between educational institutions and business to promote innovation and develop talents for the digital world. This is achieved by incorporating SAP software solutions into the educational process. Students and faculty are introduced to SAP software and technologies used in the field of digital business transformation, such as solutions for the Internet of Things, analytics, machine learning, and more.

## SUET START-UP: CENTRE FOR PSYCHOLOGICAL ASSISTANCE AND SOCIAL ADAPTATION

Coordination Centre for assistance to Members  
of the Anti-Terrorist Operation in Eastern Ukraine and members of their families

2014

Support for the reintegration of veterans in Eastern Ukraine conflict and their families

Psychological assistance

Patriotic education

Project activities

Joint project with the United Nations  
Migration Agency (IOM)

Training and employment of participants  
in the anti-terrorist operation in Eastern Ukraine/  
Joint Forces Operation and IDPs

Legal advice

Museum of the Revolution of Dignity and Armed  
Conflict in Eastern Ukraine

Project of the Ministry of Reintegration  
of the Temporarily Occupied Territories  
of Ukraine supported  
by the World Bank №TF0A3307  
"Development of the Center for Psychological  
Assistance and Social Adaptation of IDPs  
and ATO Veterans"

2017-2020

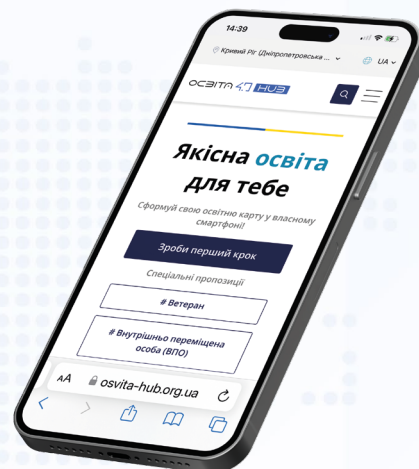
State University of Economics and Technology - Socially Responsible Institution of Higher Education

Implementation of current projects and measures aimed at overcoming the consequences of military aggression by the Russian Federation



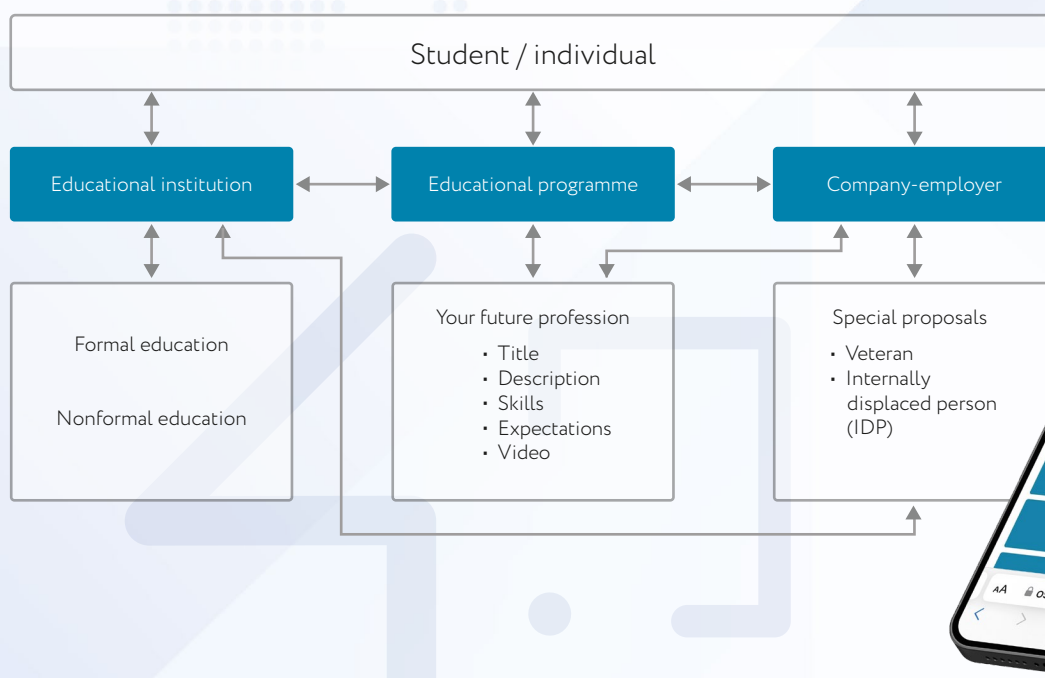
## e-platform OCBITA 4.0 HUB®

|                             |  |
|-----------------------------|--|
| What kind of product is it? | The educational marketplace (aggregator) is a service-oriented platform of freely accessible educational programs  |
| What is the purpose?        | To create an educational map of professional development in your smartphone  |
| What are the possibilities? | To connect the recipient of educational services with the educational institution in one click   |
| What are the challenges?    | Implement a digital tool for the competitive advantages of educational institutions and implement the "Special Offers" tool (Veteran, Internally Displaced Person (IDP)) |
| What are the needs?         | To contribute to the digital harmonization of the Ukrainian educational space  |



The possibility of forming an educational trajectory through the choice of an educational institution or an educational degree

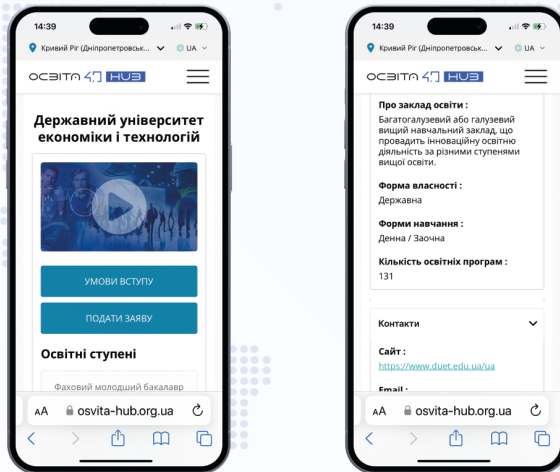
## Digital harmonization of the Ukrainian educational space through the implementation of the concept "person - education - profession"





## e-platform

### Educational institution map



An ecosystem of an educational institution about available educational programs has been created on an e-platform according to structured information

The following tools have been implemented:

- The possibility of separating structural subdivisions
- Structuring of educational programs by educational degrees
- Rating of educational programs
- Institutional information
- Feedback and geolocation

example of an educational institution map



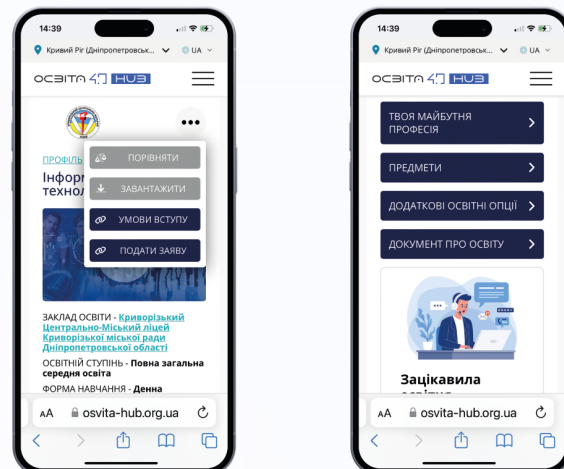
### Educational program map

Provides structuring of information according to the following criteria:

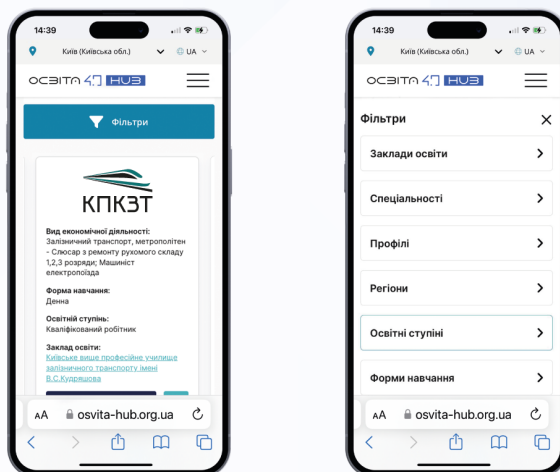
- Your future profession
- Disciplines or subjects for each semester
- Additional educational options
- Education document

The possibility of contacting a personal consultant, downloading the original form in .html format, geolocation and switching to the educational institution map have been implemented

an example of an educational program map



### Service possibilities for working with educational programs



The following tools have been implemented:

- Ecosystem of the educational institution
- Principle of "quiz" when processing user requests
- Viewing and comparing several educational programs based on the rating of user requests
- Educational program filtering system
- On-demand search system
- Search leaders
- The principle of regional selection of requests
- Geolocation of educational institutions
- Telegram Bot e-platform support center - @osvita\_40\_hub\_bot
- "Analytics" service
- Multilingualism (Ukrainian/English)

## LABORATORY FOUNDATION

### Laboratory of preparation and processing of charge materials of the mining and metallurgical complex

Carrying out scientific and research work on the optimization of the design, dynamics and reliability of mechanical equipment for the preparation and processing of charge materials of the mining and metallurgical complex

### Metal forming laboratory

Carrying out research of metal forming processes

### Agglomeration and steel-making processes laboratory

Modeling of sintering processes of charge materials. Investigations of thermal processes in steel-making by the method of physical modeling using low-temperature solutions

### Charging circuit blast-furnace and technology blast-furnace smelting laboratory

Study of the processes related to the distribution of charge by charging it into melting units

### Materials Science laboratory

Study and analysis of the macro- and microstructure of metals and alloys

### Molding and foundry laboratory

Research and modeling of foundry production processes

### Chemical technologies and engineering laboratory

Conducting research related to determining the characteristics of coal and their properties depending on the composition.





## DIRECTLY SCIENTIFIC RESULTS

Development of vibration machines, technological processes and equipment for the preparation of raw materials used in various processes of the mining and metallurgical complex

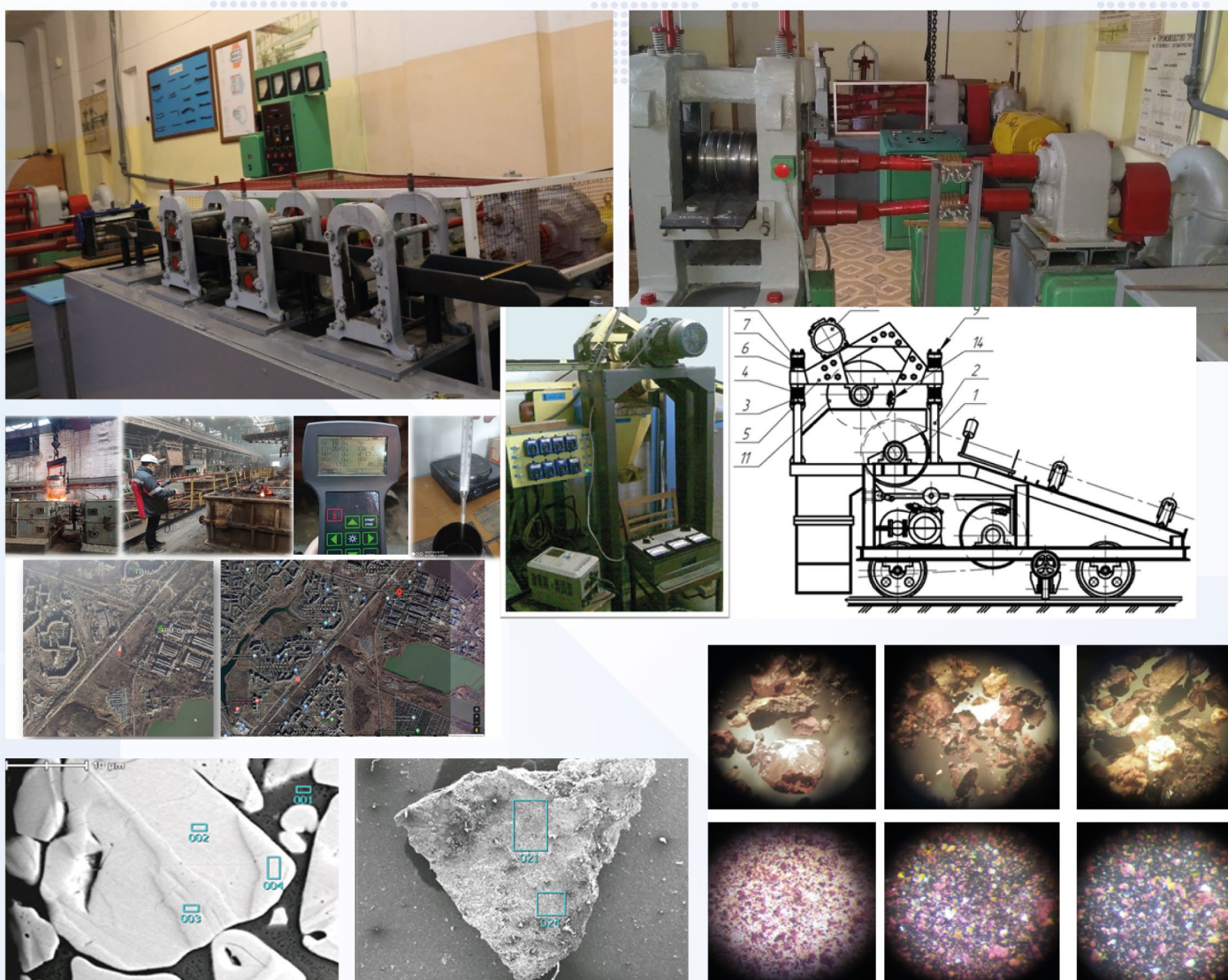
Recycling of industrial and household waste

Theoretical research on the technology of combating the freezing of raw materials

Theoretical research on the technology of iron and steel smelting, electrometallurgy of steel and ferroalloys, electrothermy of inorganic materials, foundry production, continuous casting of steel, metal forming

Modeling and system engineering of self-operated control for technological complexes and processes, software and hardware components of industrial automation equipment, development of digital control systems for electric drives for the mining and metallurgical industry

Ecological monitoring, industrial sanitation, electrical safety



### GENERAL PARTNERS





CHARITABLE FOUNDATION



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OF ECONOMICS  
AND TECHNOLOGY



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