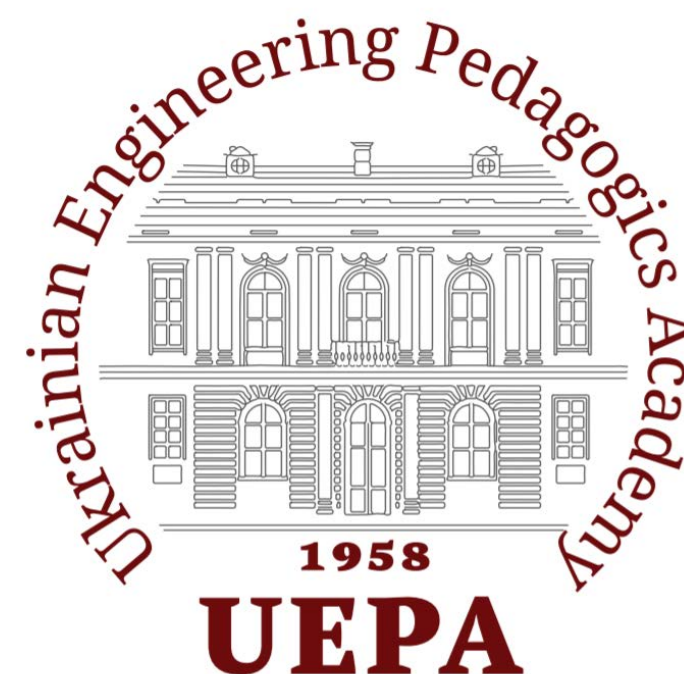# THE CONCEPT OF NEW PARTNERSHIP-BASED GOVERNANCE AND STANDARDIZATION MECHANISMS OF VOCATIONAL TEACHERS' EDUCATION IN UKRAINE

Ukrainian Engineering Pedagogics Academy

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The Structure of the Concept :

1. **Topicality of creating the Concept**

2. **Source date of the Concept**

3. **Principles of implementing the Concept**

4. **Directions of realizing the Concept**

5. **Criteria for the effectiveness of the Concept**

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TOPICALITY OF THE CONCEPT

In modern conditions, taking into account the changes in the labor market, the system of training staff for vocational education should be radically modernized, as its quality does not meet up-to-date requirements. One of the reasons is a considerable difficulty in establishing partnerships between higher education institutions (HEIs) and stakeholders.

At the same time, there are problems related to the equipment which is essential for the educational process at HEIs. The outdated equipment does not allow fully incorporating information and communication technologies, which significantly affects the development of competencies of future vocational education teachers.

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SOURCE DATE OF THE CONCEPT

Purpose of the Concept

Objectives of the Concept

creation of new partnership-based governance (PBG) mechanisms of VET teacher training at UEPA and their approbation involving the experience of participants-partners.

-to implement PBG mechanisms into the system
-of advanced training of teaching staff at vocational education institutions

- to introduce mechanisms based on partnership and standardization into the system of training future VET teachers at UEPA within the specialty "Professional education (by specializations)";

- to create effective partnership mechanisms between UEPA, vocational education institutions and other stakeholders;

- to ensure the dissemination of positive results of the implementation of PBG mechanisms at UEPA among similar education institutions.

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SOURCE DATE OF THE CONCEPT

LEGISLATIVE AND REGULATORY BASIS OF THE CONCEPT IMPLEMENTATION:

Laws of Ukraine "On Higher Education", "On Vocational Education",

"On public-private partnership"

The Internationalization Concept of UEPA and

The Development Strategy of UEPA for 2020 - 2025

"Regulations on the implementation of projects of EU international cooperation programs and management of grant funds"

Order of UEPA: "On approval of the composition of the work group for the implementation of the project Erasmus+ KA2 CBHE «New governance mechanisms based on partnership and standardisation of vocational education in Ukraine (PAGOSTE)»" (No 68 dated Feb.14, 2020)

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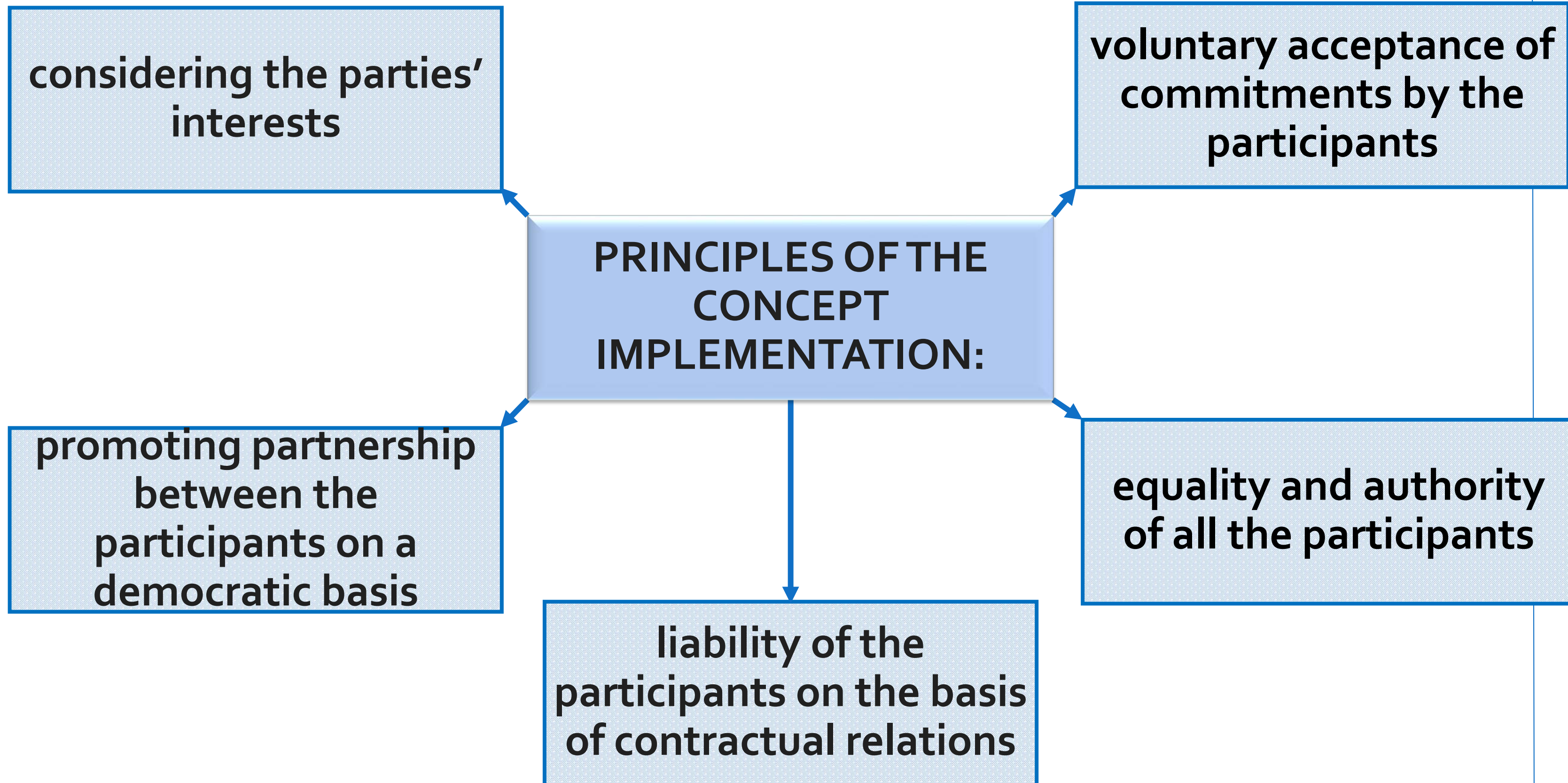## PARTICIPANTS OF THE CONCEPT IMPLEMENTATION:

EU Partners

– University of Konstanz (Germany),
– Vienna University of Business and Economics (Austria),
– Roma Tre University (Italy)

Ukrainian Partners

– Ministry of Education and Science of Ukraine (Kyiv),
– Institute of Vocational Education and Training of the National Academy of Pedagogical Sciences (Kyiv),
– Kyiv National Economic University (Kyiv),
– National Transport University (Kyiv),
– South Ukraine National Pedagogical University (Odesa)

Stakeholders

- higher education students specializing in "Professional Education" (by specializations) at UEPA;

-managerial and teaching staff of vocational education institutions;

-teaching staff of related institutions of higher education; public representatives.

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considering the parties' interests

voluntary acceptance of commitments by the participants

PRINCIPLES OF THE CONCEPT IMPLEMENTATION:

promoting partnership between the participants on a democratic basis

equality and authority of all the participants

liability of the participants on the basis of contractual relations

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Traditional system of training and retraining of VET teachers

Features

1. Non-systemic cooperation of higher education institutions, specializing in training VET teachers, with institutions of vocational (vocational and technical) education.

2. Slow and "weak" reforms in the system of postgraduate education, resulting in general and mostly stable requirements for the content and organization of advanced training of VET teachers.

3. Implementation of basic vocational training of VET teachers and advanced training of teaching staff by various structural units of UEPA.

Drawbacks

1. Insufficient vocational orientation of educational materials, "weak" practical training of students, irrational use of educational time.

2. Minor changes in curricula and syllabuses that take into account advances in education, science and technology. Lack of a mechanism for developing flexible educational documents that would take into account abilities and needs of each student doing an advanced training course.

3. Lack of consistency, compliance and continuity of both systems.

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DIRECTIONS OF THE CONCEPT IMPLEMENTATION

1. Development and implementation of mechanisms for governing VET teacher training on the basis of partnership				
Aimed at				
Students specializing in "Vocational Education" at UEPA:	Managerial staff		Teaching staff	
	Managerial staff of institutions that train VET teachers (UEPA)	Managerial staff working in the system of vocational education (directors, deputy directors, heads of methodological associations)	Teaching staff of institutions that train VET teachers (UEPA)	Teaching staff working in the system of vocational education (teachers, teachers of industrial training, methodologists)
• Transport • Engineering • Digital technologies • Power engineering, electrical engineering and electromechanics • Electronics, metrology and radio telecommunications • Technology of the light industry products • Services industry • Agricultural production, processing of agricultural products and food technology • Oil and gas business • Design • Economics				
2. Formation of UEPA's content contribution to the development of partnership-based governance and standardization mechanisms				

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DIRECTION 1.
DEVELOPMENT AND IMPLEMENTATION OF MECHANISMS OF GOVERNING
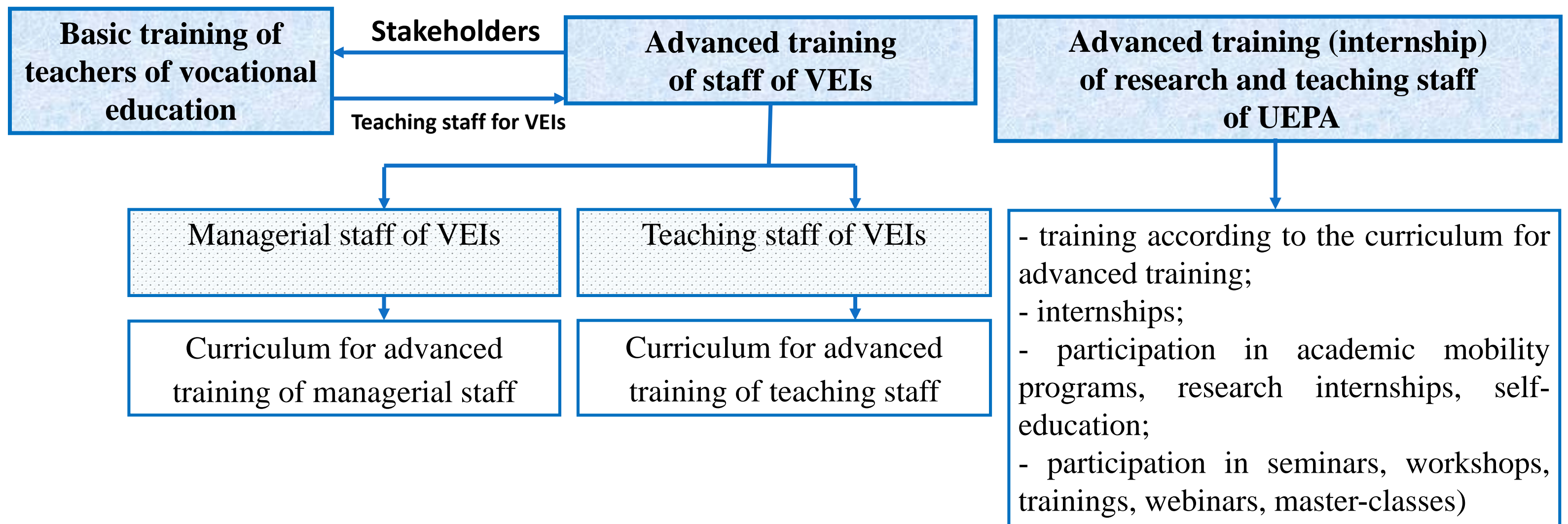## VET TEACHER TRAINING

"Center of Teaching and Governance Excellence for VET in Ukraine" (hereinafter referred to as *the Center*)

| provides partnership by creating structural-functional horizontal and vertical connections | implements three-vector control that combines the efforts of UEPA; students as first range consumers of educational services; future VET teachers and specialists as second range consumers of educational services and future employers; the public as representatives of society | conducts scientific and educational activities through the use of innovative tools, methods and technologies that are mostly implemented on the basis of computer technology |

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An improved model of partnership-based governance mechanisms for teacher training for vocational education institutions (VEIs) and UEPA on the basis of the Center

| Basic training of teachers of vocational education | Stakeholders ← | Advanced training of staff of VEIs | Advanced training (internship) of research and teaching staff of UEPA |

Teaching staff for VEIs

| Managerial staff of VEIs | Teaching staff of VEIs |

| Curriculum for advanced training of managerial staff | Curriculum for advanced training of teaching staff |

- training according to the curriculum for advanced training;
- internships;
- participation in academic mobility programs, research internships, self-education;
- participation in seminars, workshops, trainings, webinars, master-classes)

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Directions for improving the fundamentals of VET teacher training on the basis of the Center

Improving higher education standards and educational vocational programs through the competency approach

Creating curricula and programs aimed at developing professional competencies

Participation of stakeholders at all stages of training students according to educational programs

Conducting practical classes	Holding workshops	Managing internships	Participating in examination boards

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Areas of improving advanced training of teaching staff of VEIs on the basis of the Center

Teaching staff of VEIs

Managerial staff of VEIs

Curriculum for training teaching staff:

1. Socio-humanitarian module.

2. Psychological and pedagogical module.

3. Vocational module.

4. Presentation of a qualification work.

Curriculum for training managerial staff :

1. Socio-humanitarian module.

2. General vocational module.

3. Specialized vocational module.

4. Presentation of a qualification work.

Forms and methods of teaching: maximum consideration of the needs (skills, interests, abilities) of managerial and teaching staff in the VET system

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Directions for improving advanced training of research and teaching staff of UEPA on the basis of the Center

Teaching, research and teaching, managerial staff of UEPA

Courses:
1. Languages (Ukrainian, English (levels B1, B2)).
2. Express-courses "A PC-User".

Seminars:
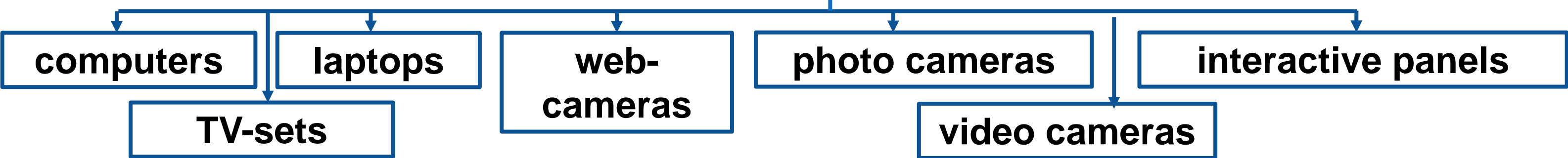1. Innovative culture of the teacher.
2. Style and beauty of a person.

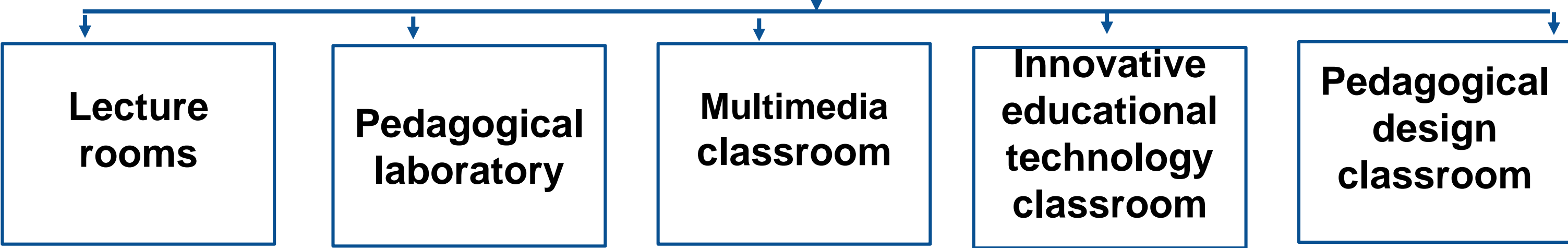**Trainings:**
1. Psychological.
2. Team-building.

Workshops on:
1. Problems of energy saving..
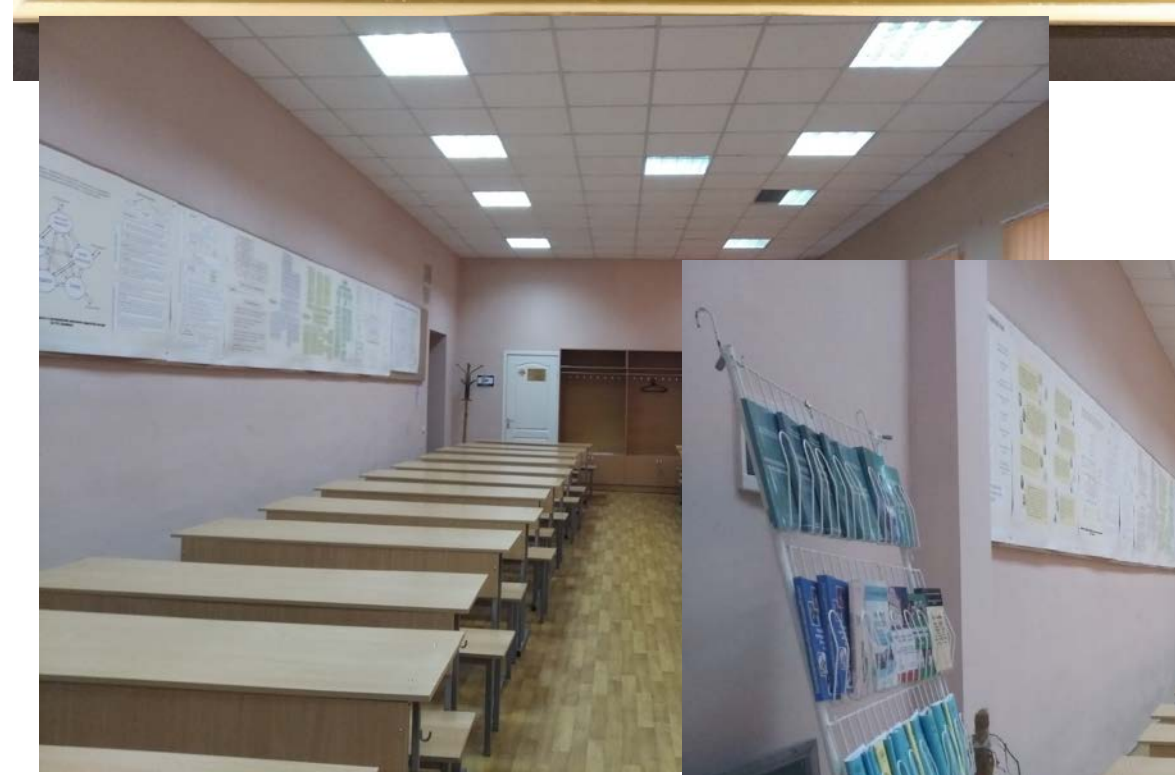2. Development and implementation of distance learning.

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The Center need modern equipment:

computers

laptops

web-cameras

TV-sets

photo cameras

video cameras

interactive panels

To use this equipment, it is necessary to prepare the following premises of the Center:

Lecture rooms

Pedagogical laboratory

Multimedia classroom

Innovative educational technology classroom

Pedagogical design classroom

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IMPLEMENTING EDUCATIONAL ACTIVITIES IN THE ROOMS OF THE "CENTER OF TEACHING AND GOVERNANCE EXCELLENCE FOR VET IN UKRAINE"

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Implementing educational activities in the lecture room

Approximate directions of using technical equipment:

✓Conducting lectures with the help of multimedia for groups of up to 70 students

✓Watching and discussing educational videos in groups of up to 70 students

✓Watching and discussing videos on conducting trial classes in groups of up to 70 people

✓Conducting trial classes

✓Using an interactive panel to prepare for trial classes, to present the results of didactic, scientific, course projects

✓Conducting business games, trainings

✓Holding scientific conferences for students with up to 70 participants

✓Holding round-table discussions with up to 50 participants

✓Holding meetings with stakeholders

✓Opportunity to conduct classes for students using the equipment when meeting with stakeholders

✓Ability to develop skills and abilities when working with interactive panels to show educational materials to students

Planned equipment: an interactive panel, a laptop (for the teacher), a video camera, a photo camera, speakers

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Implementing educational activities in the pedagogical laboratory

Approximate directions of using technical equipment

✓Watching educational videos, video clips, photo presentations, individually by each student within a specific area of research or a topic of a research project

✓Web-tours (doing individually PC courses, discussion, generalization, formulation of conclusions)

✓Participation in online conferences, chat discussions

✓Search for Internet resources necessary to create and realize didactic projects

✓Participation in conducting online trial classes by students as participants in the educational process or as external experts (for the analysis of the class)

✓Creation of Internet projects by students: educational films, online classes

✓Search and selection of materials for the creation and implementation of didactic projects

✓Creation of educational websites on the topic of the project (research direction, a certain topic chosen by the teacher within the preparation for practical classes or lectures, as additional materials within the preparation for teaching internships)

✓Work with lecture materials, work in the distance learning system, preparation for practical classes

✓Opportunity to take part in conducting a trial online class by a student as an external expert or to acquire knowledge and skills of conducting online classes by participating in an online class / web lecture delivered by experienced teachers of the department

✓Using a multimedia projector and a screen to prepare for trial classes, to present didactic, scientific, course projects

Planned equipment: personal computers (10 PCs), a laptop (for teachers), a TV-set / a multimedia projector / a projection screen, headphones with a microphone, speakers

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Implementing educational activities in the multimedia classroom

Навчальна комп'ютерна аудиторія кафедри педагогіки, методики та менеджменту освіти

Multimedia classroom of the pedagogy, methodology and education management department

Approximate directions of using technical equipment

✓**Conducting business games, trainings in groups of up to 20 participants**

✓**Holding round-table discussions with up to 20 participants**

✓**Holding scientific conferences for students with up to 20 participants**

✓**Searching for Internet resources for creating and implementing projects**

✓**Searching and generalizing materials for creating and implementing projects**

✓**Watching and discussing videos related to conducting trial classes for groups of up to 20 students**

✓**Watching and discussing educational videos in groups of up to 10 students or during individual consultations with the teacher**

✓**Participating in online conferences, discussing findings in chats or in live (among up to 10 people)**

✓**Participating in conducting trial online classes by students as participants in the educational process or as external experts (to determine the advantages, disadvantages, to analyze the classes)**

The planned equipment: laptops for students (6 laptops), a laptop (for teachers), a TV-set, headphones with a microphone, speakers

✓**Working in cloud services**

✓**Holding online / offline meetings with stakeholders**

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Implementing educational activities in the innovative educational technology classroom

Approximate directions of using technical equipment

✓Conducting lectures on the use of multimedia for groups of up to 40 students

✓Holding round -able discussions with up to 40 participants (which includes using multimedia presentations)

✓Conducting scientific conferences for students with up to 40 participants (including speeches in which participants need to use multimedia)

✓Development of business games, trainings, cases, intellect cards

✓Participation in conducting trainings

✓Working with intellect cards

✓Working with electronic cases

✓Conducting scientific conferences of students with up to 40 participants (including speeches by participants using multimedia)

✓Search for Internet resources for creation and realization of innovative projects

✓Search and generalization of materials for creation and implementation of innovative projects

✓Conducting trial online / offline classes

✓Scanning educational materials from printed manuals, copying printed materials, printing prepared contour summaries for carrying out trial classes, printing illustrative handouts

Planned equipment: personal computers (10 PCs), a laptop (for the teacher), 5 webcams, a multimedia projector, a projection screen, a multifunction device for printing, headphones with a microphone, speakers

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Implementing educational activities in the pedagogical design classroom

Approximate directions of using technical equipment

✓Conducting lectures on the use of multimedia for groups with up to 30 students

✓Watching and discussing educational videos in groups

✓Watching educational videos, video fragments, photo presentations by each student individually within the defined direction of the research or a topic of the research project

✓Participation in online conferences, discussions of findings in chats or in live

✓Participation in conducting online trial classes by students as participants in the educational process or as external experts (to analyze the classes)

✓Creation of Internet projects by students: educational films, online classes, presentation materials, educational sites, processing and generalization of the filmed material related to a practical part of pedagogical training of students (trial classes, teaching internships)

✓Use of a multimedia projector and a screen for trial classes

✓Development of skills of creation, adjustment and structuring of distance courses within the limits of the defined practical tasks or tasks within the project

✓Video recording of fragments of classes (training sessions)

✓Creation of photo materials containing examples of classes (training sessions)

✓Scanning educational materials from printed manuals, copying printed materials, printing prepared contour summaries for carrying out trial classes, printing illustrative handouts

Planned equipment: personal computers (10 PCs), a laptop (for teachers), a video camera, a photo camera, 5 webcams, a multimedia projector, a projection screen, a multifunction device for printing, headphones with a microphone, speakers

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Workshops Topics

No	Topic
1.	Industry 4.0 challenges for vocational education
2.	Modeling processes of mechanic processing of machine-building products
3.	Training teachers to use cloud technologies
4.	Digitalization of learning: digital learning materials
5.	Development of an environment for displaying clothing collections with the use of *Autodesk 3ds MAX*

Model of partner interaction of the participants on the basis of the Center

Basic training of VET teachers

Advanced training of teaching staff of vocational (vocational technical) education institutions

Standards of higher education and educational vocational programs based on the competency approach

Participation of stakeholders

Curricula (training programs), syllabuses, work programs aimed at the formation of professional competencies

Teaching disciplines in accordance with the standards 015 "Vocational education (by specializations)"

Management of teaching internships

Examination boards – chairpersons of EB

Combination of soft and hard skills

Use of innovative technologies

Use of information and communication technologies (ICT)

Training programs for:

Teaching staff (teachers, industrial training teachers, methodologists)

Managerial staff (directors, deputy directors, heads of methodological associations)

1. Socio-humanitarian module.

2. Psychological and pedagogical module.

2. General vocational module.

3. Vocational module.

3. Specialized vocational module.

4. Presentation of a qualification work.

Teaching, internships

Workshops

Certification exam

Forms of organization:
- Theoretical classes in classrooms at UEPA;
- Excursion and consulting activities on the bases of enterprises, vocational (vocational technical) education institutions

Maximum consideration of the needs (skills, interests, abilities) of managerial and teaching staff working in the VET system

Providing the necessary flexibility of curricula and programs

Dual approach

Reforming the VET system

Reforming the education system of Ukraine

Competency approach
Giving more authority to EIs

European integration of Ukraine

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DIRECTION 2. FORMATION OF THE CONTENT CONTRIBUTION OF UEPA IN THE DEVELOPMENT OF PARTNERSHIP-BASED GOVERNANCE AND STANDARDIZATION MECHANISMS

Form of the direction realization: vertical integration		
Ways of implementation	Events	Participants
Using the experience of partner participants and stakeholders	Holding international scientific conferences on engineering pedagogy, seminars, round tables, workshops, online meetings	Project partners, stakeholders
Activating international academic mobility	Organization of internships on the basis of project partners	Teachers and those getting higher education in the specialty "Professional Education" (by specializations) at UEPA
Generalizing the experience of HEIs and vocational education institutions of Ukraine under pandemic conditions based on the implementation of distance learning	Start of research work on the topic "Improvement of psychological and pedagogical training of teachers in terms of distance learning on a partnership basis"	Professorial and teaching staff of the Department of Pedagogy, Methodology and Education Management

DIRECTION 2. FORMATION OF THE CONTENT CONTRIBUTION OF UEPA IN THE DEVELOPMENT OF STANDARDIZATION- AND PARTNERSHIP-BASED GOVERNANCE MECHANISMS

Form of the direction realization: vertical integration		
Ways of implementation	Events	Participants
Using advanced pedagogical experience	Annual School "Education 4.0 and Teaching Excellence"	Professorial and teaching staff of UEPA, representatives of vocational (vocational technical) education institutions
Developing recommendations based on the results of UEPA's positive experience in implementing the Concept	Dissemination of recommendations	Ministry of Education and Science of Ukraine, HEIs, vocational (vocational technical) education institutions

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CRITERIA OF THE CONCEPT EFFECTIVENESS

The main criterion is the quality of VET teacher training and the demand for VET teachers in the labor market

Quantitative criteria:	
	new programs for educational disciplines have been developed
	agreements on all types of internships have been concluded
	joint conferences, seminars, round tables, etc. have been held with stakeholders
	open classes and master-classes have been conducted with the use of modern educational technologies
	the number of students employed at the request of stakeholders
	questionnaires and surveys have been developed
	legal and normative documents have been developed
	methodological materials have been created

The quality of teacher training will be assessed on the basis of qualimetric models.

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