

August, 2019

PRINTeL

Newsletter No.3

THE TEACHERS' TRAINING (TT) COURSES

In the framework of the project Erasmus+ PRINTeL Project's WP.2 ("Capacity building of teaching staff") training courses were organized for the teaching staff in the period of February-March 2019. The programme was organized at 9 partner countries' universities and pursued the aim of developing innovative and technology-enhanced teaching and learning skills.

This was preceded by short-term training courses for the trainers from partner countries' nine higher education institutions at the following European universities: Katholieke Universiteit Leuven, Universitat de Barcelona, Universidade do Porto, Linköpings Universitet, FH Joanneum Gesellschaft mbH. The following topics with regard to innovative technologies and methods were covered:

- ♦ Active Learning in the Flipped Classroom;
- ♦ Video as a Teaching and Learning Tool for Teachers and Students;
- ♦ Active Learning and ICT-Enhanced Teaching: M-Learning and Gamification;
- ♦ Hybrid/Blended Learning and Teaching;
- ♦ Active Learning: Getting Students to Work and Think in the Classroom.



Co-funded by the
Erasmus+ Programme
of the European Union



The project addresses a major issue of quality education, which is a common concern for the project partner countries.

The ERASMUS+ PRINTeL is a three-year duration EU funded "Capacity Building in the Field of Higher Education" project aimed at enhancing quality of teaching and learning at partner country (PC) universities in Armenia, Georgia and Belarus .

In-House Teacher Training at National Polytechnic University of Armenia (NPUA).

To participate in the above trainings the special competition Commission of the NPUA, on the basis of the two-stage test procedures, selected 11 candidates to participate in the above trainings.

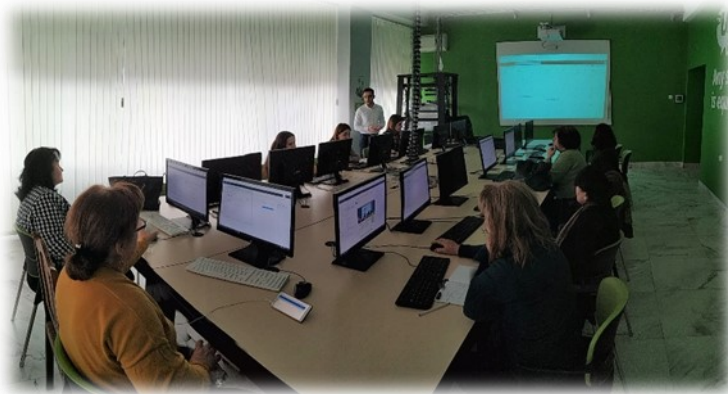
Upon the return of the trainers from the above courses, a special meeting of the Rec-



At NPUA 110 teaching staff members are retrained

torate of NPUA was convened. On January 30, 2019 at the meeting of the Rectorate the reports of the trainers on the results of retraining in European partner universities were considered. At the meeting, which was presided over by the Rector of NPUA Professor V. Z. Marukhyan, also participated the working group of the project "ERASMUS+ PRINTEL.

All the presentations were accompanied by active discussions, during which the



importance of localization of programs, dissemination and application of the acquired experience were noted, as well as thanks were expressed to all participants for the work done.

Summing up presentations and discussion which lasted about two hours Rector of

NPUA Professor V. Marukhyan proposed to supplement the mandatory programmes division of the Continuing Education and Faculty Development Centre with new course

"Modern teaching technologies", which will be based on the materials developed by teachers trained in the framework of the "ERASMUS + PRINTEL" project. The proposal was adopted unanimously.

Thus, according to the approved schedule in the period of February-March, 2019 the Teacher Training (TT) Courses for retraining of the NPUA teaching staff were organized.

According to the Project requirements it was envisaged that the trained trainers who successfully passed ToT (Training of Teachers)



Courses would adjust TOTs to the local needs and were to prepare up to 110 NPUA teaching staff members on the above innovative technology-enhanced teaching and learning methods, on basis of which 11 TT courses for teaching staff members training were designed. Herein the list of main trainings courses are presented:

- ◆ Active Learning in the Flipped Classroom,
- ◆ Video as a Teaching and Learning Tool for Teachers and Students,
- ◆ E-content recording. Interactive Classroom: Video as a tool for flipped learning,
- ◆ Active Learning and ICT-Enhanced Teaching: M-learning and Gamification,
- ◆ Blended Learning and Teaching,
- ◆ Active Learning: Getting Students to Work and Think in the Classroom,
- ◆ Teaching and Learning Innovative Approaches.

The trainings were accompanied by lectures and practical exercises, held in an interesting and businesslike atmosphere. According to the results of the trainings, the trained teachers presented independently prepared final assignments on reviewing of the acquired innovative T&L methods in the areas of their regular teaching activity.

In-House Teacher Training at Yerevan State University (YSU)

From Yerevan State University at the ToT courses were engaged 16 participants which had trained up to 160 YSU teaching staff members at the TT courses. Herein the list of designed courses are presented:

- ♦ The Hybrid/Blended Teaching and Learning: Technologies in the Classroom,
- ♦ Active Learning and ICT-Enhanced Teaching: M-Learning and Gamification,
- ♦ Video as a Learning Tool for Teachers and Students,
- ♦ The Nowadays Content of Active Learning and the Ways of Practical Implementation,
- ♦ Active Learning in the Classroom,
- ♦ Blended/Hybrid Teaching,
- ♦ Active Learning in Flipped Classroom,

At YSU 160 teaching staff members are retrained

- ♦ Active Learning in Higher Educational Institution,
- ♦ Application of Active Learning Methods in Classroom.

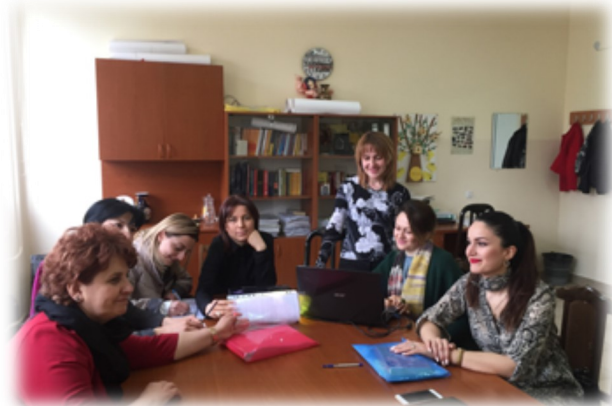


The importance of active learning, its opportunities and possible means of application were highlighted during the training. The participants were introduced with the theoretical fundamentals of the methodology of active learning, as well as its role in promoting students' further involvement

and more active participation in the overall process of education.

Throughout the training course the theory was coupled with practical assignments. Certain active learning tools were introduced to put the theory into practice in the academic environment.

The use of mobile phones and gamification in the learning process was in special focus. Besides, during the five days of the training the lecturers got acquainted with innovative learning tools such as Canva, Sli-do, Kahoot, Mentimeter, Polleverywhere, Adobe Spark video, as well as the principles, elements and options of using gamification (i.e. Moot Court, Escape Room).



The participants were introduced to the techniques of creating QR code and were asked to create QR codes for their courses. Participants had the opportunity to experimentally test the methods presented, including the Polleverywhere, Sli-do, and Kahoot programs, to prepare and show short films in Adobe Spark Video, as well as take part in the Escape Room featured training. The active participation and involvement of the teaching staff in the training was a vivid proof of the fact that the proposed methods will be useful and effective also for the students learning process, as well.



The assignments for trainees were designed so that they could best benefit students of appropriate departments. The localized tasks helped the trainees to better feel the need for the frequent implementation of active learning methodology in the academic setting. The materials for the TT courses were adapted in compliance with the needs of the target audience. By the end of each workshop the trainees had a chance to exchange their impressions pertaining to the efficacy of the recommended approaches in the atmosphere of open and productive discussion.

The TT courses proved to be highly efficient and rose great interest in Innovative and Active learning.

In-House Teacher Training at Vanadzor State University (VSU)

In ToT courses from VSU were involved 6 participants which after training had trained up to 60 VSU teaching staff members. The following courses were presented to the trainees:

- ♦ Video as a Learning Tool for Teachers & Students,
- ♦ Video Lecturing & Promoting Interaction in the Classroom,
- ♦ Active Learning, with Special Focus on Technology Enhanced Collaborative Learning,
- ♦ Active Learning and Ict-Enhanced Teaching: M-Learning and Gamification,
- ♦ Hybrid/Blended Teaching,
- ♦ Active Learning in the Flipped Classroom.

At VSU 60 teaching staff members are retrained

During the five-day training, the participants got acquainted with the resources of the creation and distribution of videos such as the leading "Panopto" platform, "Explain Everything", "iMovie" or "MiniMovie" apps, "Movavi" program. The principles of video effectiveness, the benefits of class visualization, and the basic steps of creating a video, joint visual, auditory, and kinaesthetic learning possibilities were discussed. At the end of the training, the participants presented their videos, each of which had a



functional significance: a homework assignment, reminder of key moments of the lecture, or a summary.

The training course on “Active Learning, with special focus on Technology Enhanced Collaborative Learning” was carried out on Google Drive platform, which provided the document circulation and the accessibility of the materials presented among the participants.



The trainees accepted the usage of e-Portfolios with great enthusiasm. These e-Portfolios enabled the trainees to create a personal page, to prepare descriptors of students' performance, as well as to create different systems that would support the trainers to conduct their courses and to assess the participants' performance, such as Animaker, Canva, Prezi, Mindmap, Polleverywhere, Plickers, Mentimeter, etc. Several well-known methods in parallel with the improvement of the



practical skills on online platform, such as Six Hats, One-Minute Questioning, TPACK, ADDIE, BLOOM Taxonomy, SMART, ABCD, etc. were utilized.

It should be noted that trainings at VSU passed in the

atmosphere of great enthusiasm, sound collaboration and cooperation.

In-House Teacher Training at Ilia State University (ISU)

The TT courses were going to be delivered by the 15 ToT courses participants from ISU. It was envisaged that up to 150 ISU lecturers would participate in the TT course. ISU teaching staff members were trained in the following courses:



- ♦ Blended/Hybrid Teaching and Learning,

At ISU 150 teaching staff members are retrained

- ♦ Active Learning: Technology Enhanced Collaborative Learning,
- ♦ Active Learning and Modern Technologies,
- ♦ Active Learning and ICT-enhanced teaching: M-learning and gamification,
- ♦ Video as a Learning tool for teachers and students,
- ♦ Active Learning in the Flipped Classroom.



During the training series on the course of “Video as a Learning tool for teachers and students” besides the discussion of the effectiveness of video in higher education, the participants were introduced to different computer and mobile programs/applications (Camtasia Studio/Panopto, Explain Everything/AWW, iMovie/Power Director) to create/edit video, and also to differ-

ent applications for increasing interactivity in the class. The participants had individual projects to learn these programs/applications by using them. At the end of the course the participants received certificates.

In case of “Blended/Hybrid Teaching and Learning” course it started with the introduction of theories of blended learning that was followed by discussions and practical tasks. The attendees had a chance to work in different online platforms like Moodle, Trello, E-portfolios



and etc. At the end of the course, each participant presented his/her own project – the vision of transforming his/her own courses into blended ones. The majority of the participants indicated in the evaluation survey forms that the tools which they were introduced to during the training could be successfully implemented into the courses to enhance the quality of teaching and learning. Training sessions were lively, and participants in the classroom were busy even for long hours than planned.

At the end of the course, each participant presented its own project – the vision of transforming its own courses into blended ones. The majority of the participants indicated in the evaluation survey forms that the tools which they were introduced to during the training could be successfully implemented into the courses to enhance the quality of teaching and learning.

In-House Teacher Training at Georgian Technical University (GTU) .

For participation at the ToT trainings 15 participants from GTU were involved. It was envisaged that the trainers would prepare up to 110 teaching staff members in following TT courses:



At GTU 110 teaching staff members are retrained

- ♦ Video as a Learning Tool for Teachers & Students,
- ♦ Active Learning in the Flipped Classroom,
- ♦ Hybrid/Blended Teaching and Learning,
- ♦ Active learning and ICT-enhanced teaching: M-learning and gamification,



- ♦ Active Learning: Technology Enhanced Collaborative Learning.

At the course of “Video as a Learning Tool for Teachers & Students” the trainees were introduced to the innovative methodology of teaching and learning in the method of video application. Several special teaching and learning scenarios on how to use video

as a learning tool to flip the class were discussed during the training. In the course of the training it was also highlighted that audiovisual materials can convey and communicate complex information in a more motivating and memorable way thus creating richer learning experiences. The TT course included discussions about the advantages and disadvantages of video lectures as well. The trainees of the course discussed how to use video both at theoretical and practical levels to motivate and engage students, and how the video could be used in teaching aspects.



During the course of “Active Learning: Technology Enhanced Collaborative Learning” the training the participants were acquainted with a number of important theoretical and practical issues, namely with the importance of active learning, the essence, the decisive role and importance of engaging students maximally in the modern teaching-learning process; active teaching methods, techniques and practical ways of their implementation. Particular attention was paid to various ways of group working for small and large classes such as Think-Pair-Share, Jigsaw, Structure Debated, etc. and the positive aspects of using them. Particular attention was paid to "Concept Map" for re-thinking theoretical issues of active learning.

The final day of the courses was devoted to the presentations of short videos prepared by the participants. The videos covered the trainees’ subjects of teaching and giving feedbacks. After the successful completion of the courses the participants were awarded with Certificates.

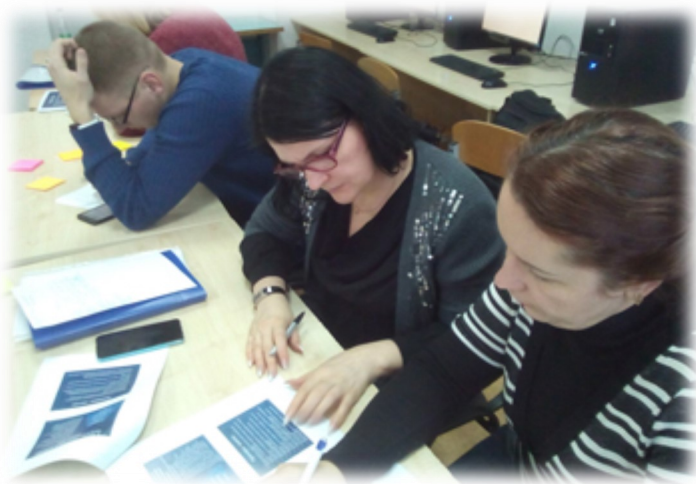
In-House Teacher Training at Belarusian State University (BSU)

To take part at the ToT trainings 15 participants from BSU were involved. In an effort to ensure the widest possible participation of various academic divisions of the university, Belarusian colleagues attracted representatives of the following faculties to participate in the trainings:



At BSU 150 teaching staff members are retrained

- ◆ Philological Faculty,
- ◆ Faculty of Biology,
- ◆ Faculty of Journalism,
- ◆ Faculty of International relations,



- ◆ BSU Laboratory of Educational Innovations,
- ◆ Faculty of Advanced Training and Retraining,
- ◆ Faculty of Philology,
- ◆ Faculty of Radiophysics and Computer Technologies,
- ◆ Faculty of Biology,
- ◆ Faculty of Mechanics and Mathematics,
- ◆ Faculty of History.

It was planned that after completion of the courses the trainers were to train up to 150 BSU teaching staff mem-

bers. The number of participants in accordance with the preparatory plan was allocated into 15 TT courses:

- ◆ Hybrid/Blended Teaching and Learning (3 TT courses)
- ◆ Active Learning in the Flipped Classroom (2 TT courses),
- ◆ Video as a Learning tool for teachers and students (3 TT courses),
- ◆ Active Learning and ICT-Enhanced Teaching: M-Learning and Gamification (4 TT courses)
- ◆ Active Learning with Special Focus on Technology Enhanced Collaborative Learning (3 TT courses).



During the training week participants got acquainted with technologies and methods of hybrid/blended teaching and learning, such as Moodle platform, E-portfolios, online open courses and online tools for creating a content of the disciplines, project oriented activity. Reflection as part of blended learning was also used during the seminars.

At the training the participants took part in a number of theoretical and practical classes on active learning methods such as m-learning and gamification strategy. All the participants have mastered a number of methods of active use of mobile apps in different types of classes.

Besides, participants got acquainted with types of video, the process of creating video, were presented practical examples of using video in teaching process and gave some Tips & Tricks about video capturing.

The trainees had also acquired basic skills in the field of mobile learning (so-called M-learning) and gamification approaches to be used in their teaching practices.

During the courses the trainees were encouraged discussions about design the typical course lecture and homework assignments on the basis of the new innovative teaching methods.

Upon the successful completion of the TT courses the trainees conducted final evaluation and reflection concerning the training implementation, presented their final projects and were awarded the Certificates of the PRINTEL Project.

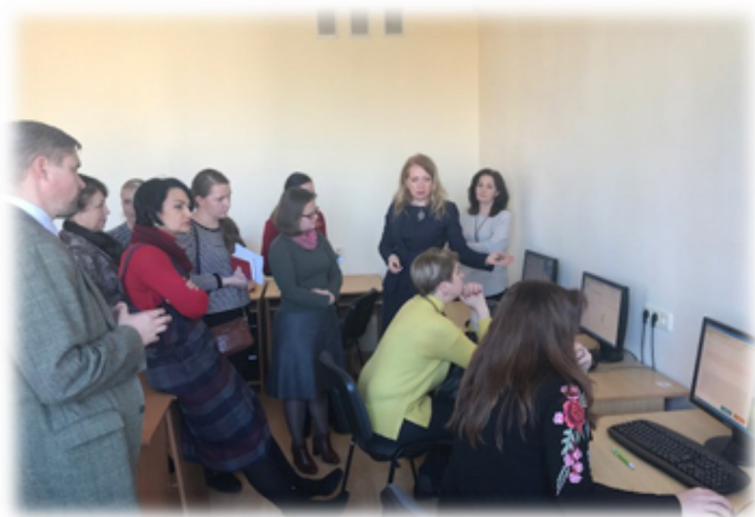
In-House Teacher Training at Brest State Technical University (BrSTU)

At the ToT trainings from BrSTU took part 10 participants. On return, the trainers designed 10 TT Courses on teaching and learning in innovative methods for BrSTU teaching staff members and in accordance with the plan they were to prepare up to 100 BrSTU teaching staff members. Herein the list of TT courses' topics are presented:



At BrSTU 100 teaching staff members are retrained

- ◆ Application of Active Learning in Technical Science,
- ◆ Active Learning in the Flipped Classroom,
- ◆ Blended/Hybrid Teaching and Learning,
- ◆ Hybrid / Blended Teaching and Learning,
- ◆ Video as a Learning Tool in Modern Education,

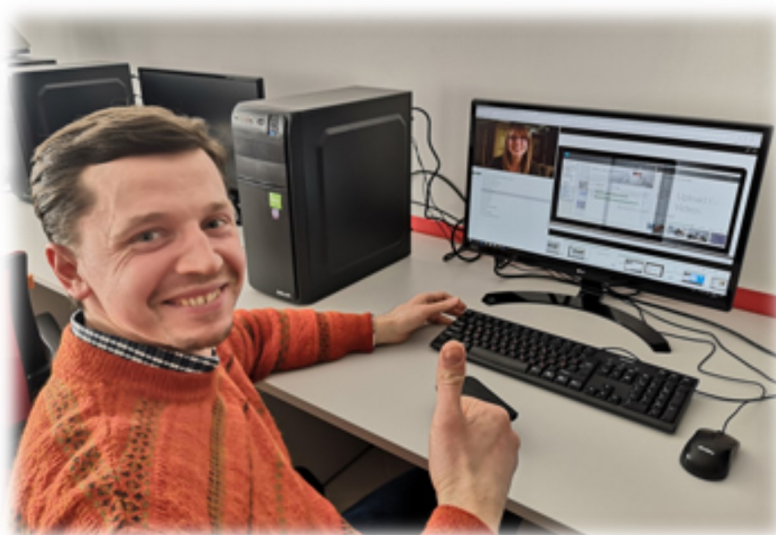


- ◆ Video as a Learning Tool for Engineering Disciplines,
- ◆ Application of Active Learning in Computer Science,
- ◆ Active Learning and ICT-enhanced teaching: M-learning and gamification.

At the trainings trainees developed and improved practical skills in the use of active learning methods and technical support to ensure

this process.

During the five-day intensive course the participants discussed the importance and opportunities of active learning, goals and ways of their implementation. Participants learned about the role and effectiveness of active learning in the learning process, the possibilities and methods of using a mo-



mobile device, as well as got familiarized with innovative teaching methods and special tools used in learning, QR code training methods, various digital applications and programs, such as: Canva, Slido, Mentimeter, on Socrative, Kahoot, Saman SPARK video, etc. the use of which makes the learning process more interesting, memorable and instructive for students. The issues concerning the advantages and limitations of the usage of these methods were also discussed during the training.

The participants of the training independently tested the proposed methods, performed tasks using various applications, developed quizzes and tests using Slido and Kahoot programs, info graphics and booklets, Canva software, short production with Adobe Spark Video, and developed their training programs (fragments) using gamification and presented them in the PechaKucha format.

Upon successful completion of this course, the teachers have developed new pedagogical competencies, such as:

- ◆ designing tasks with different methods of active learning;
- ◆ planning a gamified learning experience;
- ◆ applying specific ICT-tools in teaching (sli.do, Mentimeter, PechaKucha, Canva, Kahoot, Socrative, Quizizz, QR-code, etc);
- ◆ presenting information in a PechaKuchaformat;
- ◆ developing a strategy for applying m-learning and gamification in their own courses.

In-House Teacher Training (TT) Course at Yanka Kupala State University of Grodno (YKSUG)

At the short-term ToT courses 6 participants from YKSUG took part at European partner universities which were to train up to 60 university lecturers during TT course. As participants of the ToT course, faculty members from the following academic divi-



At YKSUG 60 teaching staff members are retrained

sions of the university were selected:

- ♦ Department for General Physics,
- ♦ Department for Foreign Languages,
- ♦ Department of Fundamental and Applied Mathematics (2 participants),
- ♦ Department of Mathematical and Information Support of Economic Systems,
- ♦ Department of Modern Technologies



After passing the abovementioned ToT courses the YKSUG trainers prepared 6 TT courses, namely:

- ♦ “Hybrid/Blended Teaching and Learning”,
- ♦ “Active Learning with Special Focus on Technology En-

hanced Collaborative Learning”,

- ♦ “Active Learning in the Flipped Classroom”,
- ♦ “Active Learning in the Flipped Classroom”,
- ♦ “Video as a Tool for Teaching and Learning”,
- ♦ “Active Learning and Ict-Enhanced Teaching: M-Learning and Gamification”.

During the teacher training courses participants about theoretical and practical best practices of the European universities colleagues were informed. Particularly, the principles and forms of active learning, the ways to create on-line portfolios of students and teachers etc. were presented. Besides, during discussions the participants also shared their personal experi-

ence of using active teaching and learning methods in their pedagogical activity while teaching different courses, the incentives for using new educational technologies in teaching and learning were considered. It should be noted that familiarization with

new methods was accompanied by active and interested discussions of participants.

Analyzing of the results of TT courses taking place at YKSUG it can be summarized that both the trainers and the participants were satisfied with the training organization and its main outcomes.



NPUA at a Glance

Having been founded in 1933 as Yerevan Polytechnic Institute with only 2 Faculties and 107 students, the university has grown into the largest higher educational institution of Armenia with regional campuses in Gyumri, Vanadzor, and Kapan, thus embracing involving in its sphere all the industrial regions of the country. In 1980-85 the university reached its peak with more than 25,000 students, and more than 80 specialties taught.

National Polytechnic University of Armenia (NPUA) was and remains the premier provider of technological education in the country. The specialization scope of NPUA includes over 45 Bachelor, 55 Master, and about 30 Ph.D. programs in Engineering, Technology, Industrial Economics and Management, Applied Mathematics and Informatics. Along with the degree programs, the University also offers extended education courses by means of Continuing Education and Faculty Development Centre (CEFDC).

Nearly 130,000 graduates during the past over 85 years have graduated from the University. Today, many of them are in the industrial leadership of the Republic. Our graduates have succeeded also in other areas of human activities.

The University has one of the leading roles in the reformations of the higher education system of Armenia. NPUA was the first HEI in the Republic of Armenia that introduced two- and then three-cycle higher education structure, implemented a credit system compatible with the European Credit Transfer System (ECTS) in harmony with the developments of the Bologna Process.

Following its Strategic Plan, NPUA aspires to become a leading regional center of engineering education and research through internationalization of education and science, sharing its experience and being ready to learn from partners.

Initiating a renovation process of study programs in accordance with the requirements of the labour market changing needs and the European standards, and improving permanently the methods and approaches of teaching and learning are among the strategic objectives of NPUA.

In this regard, participation of NPUA in PRINTeL project best meets the expectations of the University in the implementation of its strategic plans.

