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KTU

Knowledge Transfer Unit - From Applied Research and
Technology-Entrepreneurial Know-How Exchange to
Development of Interdisciplinary Curricula Modules

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KTU STRATEGY

KTU's business plan developed and activities defined

Deliverable 2.2



**KNOWLEDGE
TRANSFER UNIT**

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Table of Acronyms

Acronym	Full description
BM	Business Model
BPA	Business and Activity Plan
D	Deliverable
DoW	Document of Work
FHJ	FH Joanneum
HEI	Higher Education Institution
IIP	Intellectual and/or Industrial Property
IP	Intellectual Property
KT	Knowledge Transfer
KTH	Royal Institute of Technology
KTU	Knowledge Transfer Unit
PCU	Partner Country Unit
UdG	University of Girona
WP	Work Package

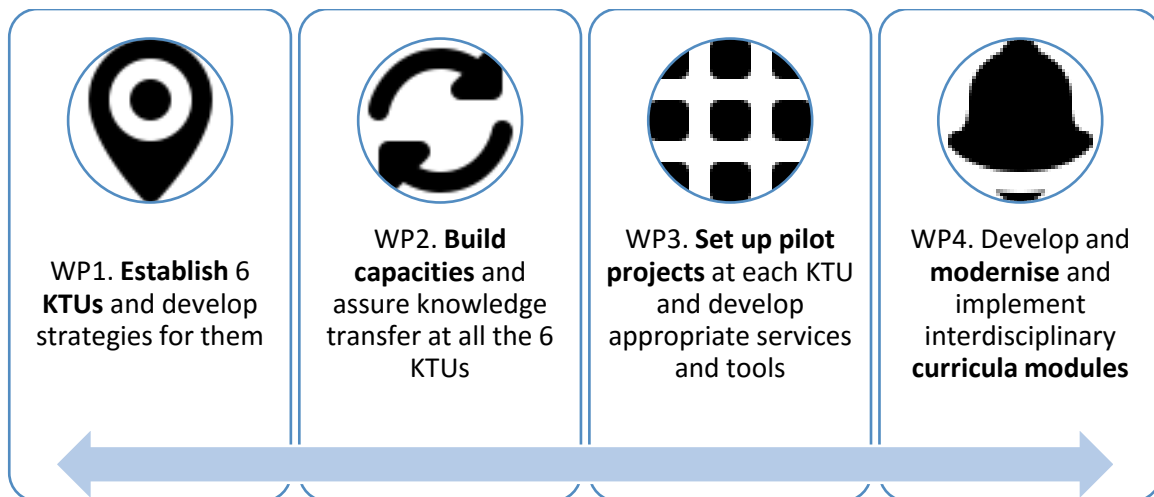


1 INTRODUCTION

1.1 Project, work package and task

This Tempus **project** aims at establishing Knowledge Transfer Units (KTU) at each Ukrainian Partner University (PCU), fully equipping them and putting them in function and full operations during the three years period of 2014-2016.

Building strongly on WP1 that serves as the basis for all other activities within the project, **WP2** named “Build capacities and assure knowledge transfer at all the 6 KTUs” specifically aims at **capacity building of Knowledge Transfer Units**. It is fully connected to all other operational WPs majorly contributing to global project success and sustainability of its results. The following figure represents the position and contribution of the WP in the project.



WP5. Conduct quality control and monitoring of the project · **WP6.** Exploitation · **WP7.** Disseminate the project results to all stakeholders · **WP8.** Conduct project management

This document contains the description of the process followed to develop and build capacities in order to assure knowledge transfer at all the 6 KTUs. The ultimate outcomes are:

- **Training** for KTU staff (described in a document titled “*Short overall report on staff training*” available:
 - https://app.box.com/files/0/f/2240347289/WP2_Build_capacities
- **Business and activity plan** for each KTU available:
 - https://app.box.com/files/0/f/3319273262/2.2_Business_and_Activity_Plan

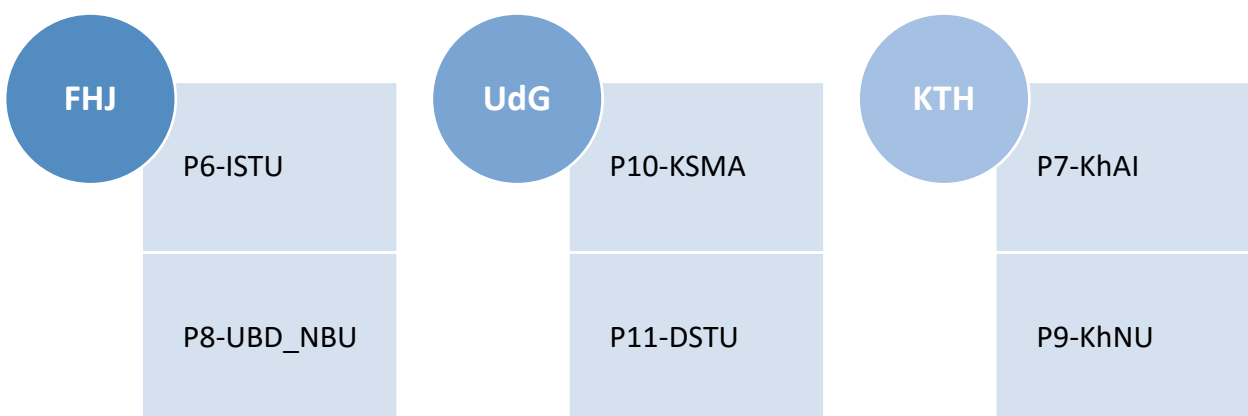


1.2 Twinning relationships

For establishing a better and closer guidance from partner universities (EU partner universities) to PCU (Partner country universities) the so-called twinning-relationships have been established and agreed. Starting with WP2 the consortium set up a configuration of twinning relationships in order to facilitate an optimal formula to carry out activities.

The twinning partners initially were planned and described as follows *“Furthermore twinning relationship will be established between the EU HEI and the PCUs. To the each of the selected EU institutions (UdG, FHJ and KTH) two PCUs (one from the field of business and one from the technical field) will be assigned. In scope of their mentoring role, the EU institutions will consult and monitor their twinning PCUs in scope of the activities that are foreseen in this WP, but in the following two WPs as well. This will contribute to the better cooperation between these institutions, development of trust and better understanding among them as well as to the sustainability of their relationship. Furthermore, this type of cooperation will allow better monitoring and control of all the implemented activities throughout the project.”* (DoW).

The final configuration of the **twinning partnerships** is:



These relationships were established based on previous relationships, personal affinities and expertise necessities. The deviation from the initial planning is that the binom “*one from the field of business and one from the technical field*” from each PCU is not accomplished in all twinning partnerships due to the predominant typology of technical universities. However, the criterion was left predominant over the initial planned one.

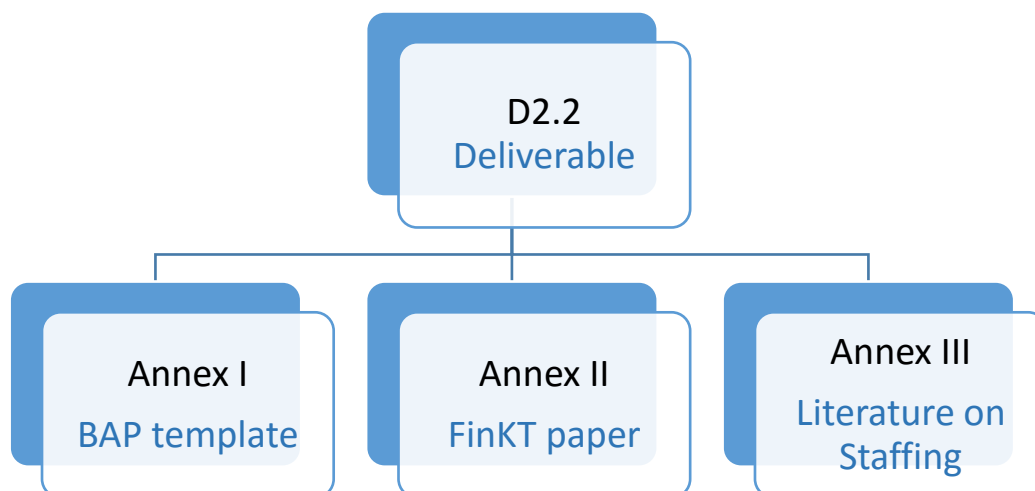
When working in twinning partnerships the recommendations were as follows:

We highly recommend:

- No radical change in the twinning-relationships
- Even close partnering is recommended in this configuration (1 >> 2) it does not imply exclusivity
- Communication and “coaching” is open across all partners
- High commitment towards this task
- Active, bilateral and multilateral interaction between partners
- Intense informing to WP leader (UdG)
- Establish “best practices” and write up to 1 page report to share them
- Report at least every 2 months the state of work and progress

1.3 Deliverable and annex documentation

The documentation generated regarding the task is organised in the following way:





2 BASIC LITERATURE

The **body of knowledge** on knowledge and technology transfer is considerable and its main focus is in formats (modalities to transfer), barriers and enablers, success cases with high predominance of geographical focus on the US and highly innovative economies in Europe. This is also true for the special context of HEIs as main knowledge provider, which is ultimately the focus of the KTU project. Less is known for less developed countries' knowledge transfer models. Furthermore, empirical works focusing on the specific issue of creating and initiating operations of a Technology Transfer Office or unit is still scarce.

It is not the objective of the present deliverable to make an exhaustive literature review on the topic. Rather it is interesting to detect and highlight the existing academic and institutional work relevant for the present project. The outcomes of such a process are described in the "Literature review" section of a contribution to a conference organised in the FinKT project framework. The full reference of the publication is:

Andrea Bikfalvi, Christian Friedl, Thomas Schmalzer, Pere Condom Vila, Oksana Karpenko (2015) **Knowledge Transfer Units in the Ukraine - Initial Lessons Learned from Establishment and Operation**. Conference communication. FinKT (Financing Knowledge Transfer) Final Conference, Rimini (Italy).

The full paper is available as **Annex II** attached to the present deliverable. An additional document was provided to partners with recommendations found in the literature regarding **staffing**. This recompilation of the highlights is collected in Annex III. Partners were advised on this important matter so they can benefit from both the



3 METHODOLOGY

This section aims to describe the process followed to construct the BPAs, the instrument used as well as a summary containing basic features of the methodological approach applied.

3.1 Process

The process followed to build up KTU's business and activity plans can be summarized as depicted in the figure below.

Participant EU partner's experience, expertise and own KTU model	Each EU partner represents a KT model. the consortium has KTU models with geographical diversity (North Europe, South Europe, Central Europe, East Europe)
Generic strategy (WP1)	At this stage a generic and initial strategy was developed in order to have a solid starting point and a proper understanding of the objective
Trainings, workshops and study visits	On-site training and concrete operational inputs provide PCUs with valuable information (technology, organisation, challenges and opportunities)
BAP template instrument	A template serving as guideline (see detailed description in the next section) was aimed to help KTUs formulating their specific/individual strategy
Training and workshops for BPA development	Initial BAP document revision and CANVAS approach for KTUs in twinning relationships (practical session)

During the whole process a **training and learning approach** was applied. European partners co-worked with their PCU twinings making a tandem in which PCUs take the lead, have the full understanding of the situation (future KTU, institution, region, national setting) and ultimately, they have the knowledge to develop their business and strategic plan autonomously.

This is an approach through which the sustainability of the action is assured, especially after the project end.

Beyond the configuration of the consortium and practical sessions, a guideline was used to help Ukrainian partners in developing their business and activity plan. The description of the guideline outline is described in the following section.

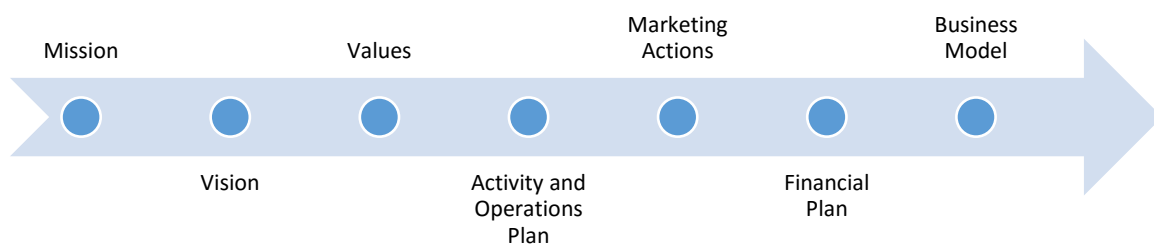
3.2 Instrument

The main instrument to develop the BAPs was constructed starting with a possible template, instruction for its fulfilment and examples from EU partners. The **key contributors** underlying the structure and content of the instruments are:

- WP leader's knowledge and expertise in the field of strategic management
- Project Manager's knowledge and expertise
- WP3 leader's vision

The key ingredient from PCU's side was the necessity to understand how and why a strategical approach –most frequent in business contexts- is applied to higher education environment. This is a cultural and operational major change that EU partner universities in the consortium already did or are in the process' full deployment. Therefore, their testimony and achievements represent important motivators for organisations initiation this process.

Annex I represents the final version of the template. It includes all the necessary information for its correct fulfilment. The main sections refer to:



Although typical for a strategy construction, the topics included in WP2 do not contemplate one key contribution, namely **strategic analysis**. This aspect was mainly covered in WP1 and it appears as an internal analysis and a starting point included as the first line of the table in Section 8 (Activity and Operations Plan).

The administration of the template took place in various stages. The main milestones in the process are gathered in the following table.



Milestones on the BAPs development

Date	Event	Action	Main achievement
11.2014		The 1 st full draft of BAP template was created	Initial BAP template
11.2014	Stockholm study visit	BAP template presented and discussed	Full understanding of the objective, process and content
12.2014		Request for fill in and send back template	Elaborate 1 st full draft version business and activity plans
02.2015	Budapest study visit	CANVAS presentation and workshop	PCUs construct own CANVAS for KTUs
03.2015		Request for full version business and activity plans	Full version business and activity plans
03-05.2015		Feed-back on draft version	Improvements to BAPs
05.2015		New versions of BAPs	Final version of 1 st BAP for KTUs
06.15-09.16 Implementation of BAPs			
10.2015	Kiev meeting	Planning and explanation of 1 st revision	Procedure to review BAP implementation
05.2016	Kiev meeting	Follow up of BAP implementation	1 st BAP fully implemented
06.2016	Girona study visit	BAP revision	
09.2016		Procedure to evaluate implementation	1 st BAP implemented and reviewed

The request for BAP revision after implementation was explained in detail in the latest meeting in Kiev (May 2016, after 1 full year of implementation). Even though the initial DoW did not include an explicit step such as BAP implementation and control, the consortium and WP2 leader considered appropriate and necessary to check the degree of accomplishment of some of the action planned in the BAP. Both the strategic management process and reality calls for such a step. Levels of accomplishment were asked to be qualified with percentage figures, 100% corresponding for task done. This operation has a double reading: i) it is a tool to control and ii) it serves for further planning and it is a valuable input to a possible 2nd period (out of the KTU project timeframe), therefore a BAP2 document.



The recommendation and request that was sent out to partners was:



SEQUENCE OF TASKS

- Open BAP v1 (either from PC or from BOX, to make sure you have the latest version)
- Save doc as BAP v2
- Add date of last modification “September 2016”
- At the end of the Introduction paste a message (this or similar to this “The objective of this document is to revise the Business and Activity Plan constructed by April 2015 highlighting all changes and levels of accomplishment of the –by that time- planned activities”.)
- In the document please check all aspects that could change from the time April/May 2015 to today September 2016 (approx. 18 months). All the time the exercise is to compare the PLANNED with the REAL situation
 - KTU contributors (if changed)
 - Complete Facts/Figures if you have new data 2015 for example
 - KTU personnel distribution by functions
 - KTU personnel additional training (done or still planned)
 - KTU personnel distribution by dedication (revise)
 - Some changes in CANVAS (if applicable)
 - Monitoring tool > add columns ACCOMPLISHMENT level Sept 2016
- Save final version of doc. Please name file as BP_acronym institution_vSept2016.docx
- Upload doc BAP v2 to BOX [https://app.box.com/files/0/f/3319273262/2.2 Business and Activity Plan](https://app.box.com/files/0/f/3319273262/2.2_Business_and_Activity_Plan). Every KTU has its own folder.

3.3 Summary

Designing and implementing business and activity plans for and with other institutions was the main task of WP2. It resulted in a very constructive process through which:

- PCU partners have a basic **knowledge** on strategic planning processes
- EU partners have an already sound trajectory in the KT field and they serve as **role models** for other institutions
- The project duration permitted the coverage of **all stages of BAP**, from design to implementation and evaluation of accomplishment



- PCU partners were **active participants** of a successful collaborative effort (KTU project in general, BAP development in particular)

4 RESULTS

4.1 Business and Activity Plans (BPA)

The DoW states (p: 122 of 194):

*UdG, as package leader, will be in charge of developing specific **ACTIVITY AND BUSINESS PLAN for all KTUs**. In this activity it will be supported by the PCUs since the goal of this activity is to define specific activities and to develop business plans tailored to each of the involved KTUs.*

This task has been **fully achieved by all PCU partners**. The achievement is due to basically three determinants: i) the preparatory tasks conducted in WP1, ii) the training and guidance in WP2, and most important iii) the understanding and compromise PCU partners showed and demonstrated during the whole project.

All partners were able to generate their BAPs as a result of an initial understanding of the situation (institutional, regional, national and international), their aims and objectives as a result of the KTU project, as well as their vision regarding the future.

The BAPs have two different versions:

- **1st full version BAP**. These documents were ready by April 2015 and they represent a strong intention of implementation during 2-3 years, until reaching objectives
- **Revised BAPs**. After more than 1 complete year of implementation BAPs have been revised through the lenses of accomplishment

All documents are available in the folder “WP2.2 Business and Activity Plan”.

It is not the objective of the present deliverable to replicate all documents. It rather presents the results of the BAPs, as a summary of their CANVAS business model, as presented in the FinKT paper (Bikfalvi et al., 2015). In our view the business model approach was the most appropriate since “A business model is the way in which a company generates revenue and makes a profit from company operation”.



	Key Partners	Key Activities	Value propositions	Channels	Revenue Streams
University 1 (private)	<ul style="list-style-type: none"> - University - Investment and business clubs - Chamber of commerce 	<ul style="list-style-type: none"> - Set up and maintain database - Marketing of information 	<ul style="list-style-type: none"> - Patenting - Protection of IPR - Market research - High tech equipment and instructor for rent 	<ul style="list-style-type: none"> - Website - Workshop - Face-to-face - Chambers 	<ul style="list-style-type: none"> - Licensing - contract research - rent - consulting fees
University 2 (public)	<ul style="list-style-type: none"> - University - KTU network - Training institution 	<ul style="list-style-type: none"> - Grant writing - Training and Seminars - Consulting services 	<ul style="list-style-type: none"> - Facilitate knowledge transfer - promote economic development via start-up projects 	<ul style="list-style-type: none"> - Website - Office - Telephone - Direct customer service 	<ul style="list-style-type: none"> - R&D contract - Regular income from fixed-price of services - percentage from implemented start-up projects
University 3 (public)	<ul style="list-style-type: none"> - University - Chamber of commerce - Government - Independent researchers 	<ul style="list-style-type: none"> - Set up and maintain database - Marketing of services - Training or instructors and maintenance of equipment 	<ul style="list-style-type: none"> - Accessibility to potential partners - Market place for innovations and innovators - High-tech equipment and instructor for cheap rent 	<ul style="list-style-type: none"> - Website - Workshop - Face-to-face 	<ul style="list-style-type: none"> - Companies paying for equipment usage and instructor - free access to database but additional services costly - income from marketing / ads
University 4 (public)	<ul style="list-style-type: none"> - Industrial partners - External researchers and lecturers - KTU partners 	<ul style="list-style-type: none"> - Development of web-portal - Consultancy on IP - Development for support for preparation of applications 	<ul style="list-style-type: none"> - Risk reduction - Fund raising - IP and legislative support - Networking - Commitment to innovation and excellence 	<ul style="list-style-type: none"> - Online services - Workshop - personal consultancy 	<ul style="list-style-type: none"> - paid services as basic financial support - External funding - University: minimal support (student, rooms)
University 5 (public)	<ul style="list-style-type: none"> - University - KTU network - Business partners, companies - Consulting companies - Training institutions 	<ul style="list-style-type: none"> - Catalogue of services - Grant writing H2020 Erasmus+ - Training - Market research - Knowledge transfer 	<ul style="list-style-type: none"> - to facilitate knowledge transfer - Research commercialization - contracts - to connect and to help 	<ul style="list-style-type: none"> - Website - Brochure - Telephone - "unique" contact point 	<ul style="list-style-type: none"> - University budget - R&D contract (company)
University 6 (public)	<ul style="list-style-type: none"> - University - KTU network - Business Partners 	<ul style="list-style-type: none"> - Catalogue of services - Grant writing H2020 Erasmus+ 	<ul style="list-style-type: none"> - to facilitate knowledge transfer - Research commercialization 	<ul style="list-style-type: none"> - Website - Brochure - Telephone 	<ul style="list-style-type: none"> - University budget - R&D contract (company)



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|-------------------------|----------------------|--------------------------|--------------------------|
| - Consulting companies | - Training | - contracts | - “Unique” contact point |
| - Training institutions | - Market research | - to connect and to help | |
| | - Knowledge transfer | | |
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4.2 Main achievements

The main achievements related to WP2 are visually summarized in the figure below.



Training: The BAP task has been developed both as training and as task with scientific and practical content. Contents of subjects, such as [Strategic Management or Entrepreneurship](#) could be, have been facilitated and practiced with PCU partner university staff. Recompilation of relevant readings and scientific publications were also given, especially in the beginning of the process corresponding to the initial phase of planning the KTUs focused mainly of analysis.

Business and Activity Plans: the process was guided enough and partners were motivated enough to engage in a BAP task. The project duration permitted not just the analysis and planning, but the application and revision of BAPs. The consideration the [full life-cycle of the BAP](#) was possible makes this task even more valuable.

Beyond the initially planned activities additional achievements have been generated in the form of two [conference contributions](#).



- 16-17 April 2015, Rimini (Italy) * Financing Knowledge Transfer FinKT Final conference, section “Knowledge transfer between universities/PROs and industry”
- 30-31 March 2016, Vienna (Austria) * 10th Research Forum of the Austrian Universities of Applied Sciences, section “Capacity building”

Additionally to the previously described factual achievements a series of **competences** (soft achievements) have been developed in KTU staff. These competences include, among others:

- Leadership
- Engagement and motivation
- Quality
- Self-confidence
- Teamwork
- Communication
- Flexibility
- Openness

4.3 Main problems and solutions

The **main problems** encountered in the process of BAP development can be summarised as follows:

- Initial lack of knowledge for autonomously designing and implementing a business and activity plan
- No respect of planned timings and deadlines
- Shift in mentality: from a traditional teaching focused HEI towards a more entrepreneurial HEI
- Lack of self-confidence in the achievement of the task



The **main solutions** to the encountered problems were:

- The *twinning partnership*: PCUs were always provided with support and accompaniment
- Fluid *communication*: e-mail correspondence and skype meetings were organised regularly in a planned or spontaneous way in order to address any
- Due to political situation in the Ukraine twinning visits were not possible before they were actually conducted. *Visits were postponed* and realized when possible (second half of the project)
- Adaptation to partner's necessities called for additional study visits. During the entire process partners were able to detect different necessities corresponding to the different stages of the KTU development. Initially unplanned *additional study visits* were organised



5 CONCLUSIONS

5.1 Summary

The present deliverable titled “KTU's business plan developed and activities defined” (D2.2) corresponding to WP2 had the double aim to i) **train** future KTU staff, and ii) to **develop** specific ACTIVITY AND BUSINESS PLAN for all KTUs.

Beyond the **completion of its objective**, stronger impacts have been achieved. As an evidence of its most important benefits a **lessons learned** section is presented as follows.

5.2 Lessons learned

Twinning partnerships work. The formula behind the successful completion of the project, in general, and WP2 tasks, in particular, remain the twinning partnerships. A configuration that permitted an unforced arrangement between partners (minimum requirements, but personal affinities permitted) resulted in an determinant that created functional co-working pairs between partners.

KTU creation is possible. The BAPs have been formulated not just as a document of good intentions, but also as a working document, as they should be regarded. Different versions are available as evidence of the necessity to transform and evolve.

PCUs learn. The opportunity of the KTU project took PCU partners on a transformation journey which has passed through the path of LEARNING. The approach of the project was such that learning represents its backbone. The learning process was full since it targeted:

- Different actors > institutional level, teaching staff, student community
- Various fields of the academic activity > teaching, knowledge transfer, and to a lesser extent research

EU partners learn. The opportunity of European university partners participating in the KTU project was translated in their ambition to serve as role models and examples of



their activities and KTU operations. This further implies that they might receive feedback on that and critically reflect or receive valuable inputs on possible improvements. Partners also engage in new collaborations which facilitate possible new partnerships and projects. They open up new opportunities for publications like the KTU project is testimony for.

Universities transform. As an ultimate goal, the KTU project is a valuable initiative in the direction of this motto. However, its accomplishment –as it could be the present case- it is more difficult and not free of barriers and circumstances acting as such. In these cases the most important step is this transformation, passing from no formal structures to KTUs initiating activities. This is a very rewarding step and it serves as strong motivator towards further development.