

# HiEdTec final evaluation

## Introduction

The aim of the HiEdTec project is to “support the modernization of Higher Education Systems in Central Asia through the development of open educational resources, connectivity, the acquisition of digital skills and learning methods and mobilization of stakeholders including teachers, learners, economic and social partners”.

The project started on November 15 2018 and was to end on November 14 2021. Due to delays caused by the global Corona crisis, as reported in the midterm evaluation, the project duration was extended to November 14 2022. In this document the final evaluation of the project is presented. The midterm evaluation was submitted on March 31 2020 and is attached to this document.

## Approach

As in the mid-term evaluation the External Evaluator has chosen to structure the report in line with the seven work packages as presented in the project proposal. Not all of the required deliverables are mentioned in this report, these can be found in the Project Log Frame. This Log Frame has been read by the External Evaluator and no discrepancies with his own observations have been noticed.

This report covers the whole of the project period. For completeness the mid-term evaluation report has been attached to this report..

## Input for this evaluation

The following sources have been used to gain the information for this evaluation:

- Project description, in particular Log Frame and Workplan
- The project website, both the public as the “closed” part for project partners
- The project mailing list
- The HiEdTec Facebook page
- Mid-term Evaluation report, March 31, 2020 (attached)
- Contacts with various members of the HiEdTec project community
- Table of achieved/planned results of the HiEdTec project (attached)
- Book for Dissemination<sup>1</sup> (a 555 page document describing, per Central Asian partner, what has been achieved during the HiEdTec project, to be seen as a final project report)

- Participation in HiEdTec project meetings in:
  - Tashkent (Uz), December 2019
  - Coimbra (Pt), March 2020 (remote)
  - On line project meetings during 2021
  - Bishkek (Kg), May 2022
  - Pavia (It), July 2022
  - Tashkent/Andijan (Uz), October 2022

## WP1

Cooperation for sharing experience and exchange of good practices in the field of innovative educational technologies and didactic models.

All deliverables of WP1, including the translations into Russian and vice versa, had already been published at the time of the midterm evaluation. These deliverables formed the basis of further work during the implementation of the HiEdTec project and contain a lot of useful information and guidelines to bring the project to a successful end.

The deliverables of WP1 have not been updated since the Mid-term evaluation, except for the follow-up that was given related to comments made on Deliverable 1.5 (Establishing a sustainable academic network for the sharing of experience and sharing of good practices). Reports of the five countries have been published on how these academic networks will be created:

- Kazakhstan: a plan on how the Almaty Technological University will establish an academic network of at least five Kazakh universities before the end of 2021. Apart from this plan no further activities are visible and at the end of 2022 there is still no operational academic network.
- Kyrgyzstan: a Cooperation Agreement has been signed between the Kyrgyz HiEdTec partners and KRENA, the existing Kyrgyz NREN (National Research and Education Network organisation). With this agreement access to the virtual library by members of KRENA is ensured, also for the period after the termination of the HiEdTec project.

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<sup>1</sup> Book for Dissemination: <https://hiedtec.ecs.uni-ruse.bg/index.php?cmd=cmsPage&pid=23>

- Tajikistan: a Cooperation Agreement has been signed between Tajik HiEdTec project members and the Republican Center for Information Technologies and Communications to disseminate the results of the HiEdTec project in Tajikistan. Besides this agreement, no further actions have been implemented. No mention was made to seek collaboration with TARENA, the existing NREN in Tajikistan
- Turkmenistan: a plan in general terms was presented, without any concrete project plan. The following quote from this plan is peculiar: *"In the national level, specific features in term of building sustainable academic network for sharing experience and exchange of good practices in the field of innovative educational technologies and didactic models are to be considered"*. There is already an existing NREN in Turkmenistan (TURENA) that was not mentioned in the report.
- Uzbekistan: also, here a plan has been presented without any sign of an implementation plan. Uzbekistan is the only Central Asian country that does have an NREN that provides network services for the academic community. As a result, sustainable support for the results of the project and broadening the HiEdTec results to the wholes academic community in Uzbekistan will prove to be challenging.

Of the five Central Asian countries, only the Kyrgyz partners have implemented a plan to provide a sustainable solution for the "sharing of experiences and good practices" at the national level.

In summary, on paper the deliverables of this work package (Compendium, Survey of the Status Quo, the Sustainable Network Plan and the Interproject Coaching) have been fulfilled. However, the External Evaluator misses evidence of the actual implementation of the proposed plans to ensure sustainability of the project outcomes after the termination of the project. There is also no evidence that the Central Asian partners will continue their regional collaboration after the end of the HiEdTec project with for example structured virtual meetings to exchange experiences.

## WP2

Development of Concepts of Adaptation of the HE system to the digital generation.

This work package was already fulfilled and reported on in the midterm evaluation. For completeness of this final evaluation the exact text of the midterm evaluation is repeated below:

*""The Concepts of Adaptation have been developed and published, on paper as well as electronically, at the end of 2019 in three*

*languages (Russian, English and in the local Central Asian country language). The final versions of the concepts were agreed by the relevant ministries and education and science and approved by the academic councils of the universities in the partner countries.*

*It is also not clear if the Concepts have evoked additional funding from the governments to implement actions to realise the envisaged adaptations. Each country has written "Recommendations for Adapting the Central Asian HE system to the needs of the digital generation". These documents are well structured and provide, on the basis survey input from hundreds of teachers and students, per country clear recommendations for Ministries of Higher Education and Sciences for the adaptation of Higher Education.*

*On paper this work package is "done", but follow-up actions should be monitored and reported on."*

The documents of the website did not show any concrete monitoring and reporting of the follow-up actions. The Sustainable Developments Plans of the Concept for adapting the education system to the digital generation have been sent by the Ministries of Education to all of the universities in de Central Asian partner countries. It is difficult to assess what has actually been done to implement the sustainable structures to carry on after the end of the HiEdTec project, but at least seeds have been planted that might bear fruits in the coming years.

## WP3

Development of Centres for Innovative Educational Technologies and active learning classrooms, selecting virtual classroom software; Development of Handbook of Innovative Educational Technologies.

Except for Turkmenistan, the Centers for Innovative Technologies and the active learning classrooms were already installed and operational at the time of the midterm evaluation. Since then, Turkmenistan has also installed the centers after some Corona related delays in importing the necessary equipment into the country.

The External Evaluator has visited the centers in Bishkek (2), Tashkent (2) and Andijan (1). In all cases the centers had a professional appearance and were obviously in use. The same impression was given by the online presentations of the other centers and the country evaluation reports that are available on the project website and in the Dissemination Book.

Terms of Reference of the centers have been developed and approved by the Academic Councils of the universities, ensuring that the centers are properly embedded within the academic and educational processes of the various institutions.

The “Handbook of Educational Technologies” provides excellent guidelines for the implementation of digital technologies in education. With this handbook the equipment and software of the Centers for Innovative Technologies and the classrooms can be put to use with a firm didactical base. The Handbook clearly demonstrates that the introduction of modern technology in education is more than merely replacing whiteboards with interactive screens: new technology demands a new approach to teaching and learning.

## WP4

Development of courses for trainers and lecturers for the acquisition of digital skills and innovative teaching and learning methods.

Development of open educational resources.

The syllabus had already been developed and made available at the time of the midterm evaluation. The syllabus was well structured and provides a clear path for the transition to digital teaching and learning.

Since then, the courses have been given at all of the partner universities (reaching 1041 trainees, well above the 600 that was the target in the original project plan) and the evaluations and the comments in the Book of Dissemination show a very high score of the appreciation by the teachers who have followed the course.

Armed with the knowledge gained by following the courses, the teachers have developed digital courses for their own students. In total 76 courses were developed, against a target of 75, with in total 1125 presentations and 1125 video lectures, for both the targets were for each 75. These courses are available in a cloud based virtual library of which per country internal regulations have been developed for the use of the virtual libraries within the country.

During the project meeting in Tashkent demonstrations of several courses were given on the equipment that had been provided by the project. The External Evaluator was impressed by the innovative use of digital technology in the courses, but without losing a clear didactical approach. The evaluations of the courses and the virtual library support this observation.

The Centers for Innovative Educational Technologies with their active learning class rooms and the courses that have been developed are the core of the HiEdTec project. The participating Central Asian partner universities will most certainly benefit from the advanced technology and well-trained staff that has been delivered. In many other projects related to the transition to digital teaching and learning that the Evaluator has been involved in, the Achilles heel was the willingness of teachers to change the way they had been teaching for many years<sup>2</sup>. Given the number of courses and trainees and the high quality of the output, the HiEdTec project has managed to convince the teaching staff to change their way of teaching.

## WP5

### Quality Assurance

The Internal Quality Assurance Plan has been published. The Quality Assurance Plan is a lengthily and well written document that provides clear instruments to monitor and enhance the quality of project outcomes. An evaluation of the progress report has been listed as achieved result, but is not available on the project web site.

Most of the planned evaluations have been performed and the results have been published (the only missing evaluations are some of the evaluations of some final activities). Overall, the evaluations were very positive, giving no reasons for modifications in the project implementation.

## WP6

### Dissemination and Exploitation of Project Results

A Dissemination and Exploitation Plan has been written and published on the project web site at the time of the mid-term evaluation, including various templates and worked out examples for dissemination materials, such as posters, equipment labels and other items.

Since the mid-term evaluation all of the Central Asian countries have submitted documents with "Strategies for upscaling and extending the project's impact to the national level". These documents present specific and concrete activities aimed at broadening the impact of the project within the specific Central Asian country. The proposed activities differ per country, taking the local situation into account, and all cases the plans should further extending the impact of the project to the whole, or large part, of the Higher Education sector. With the assistance of the Ministries of

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<sup>2</sup> An example of such a lack of willingness was a professor who told me that he was against the introduction of computers in the teaching environment. He said that he himself was BC and look how well things had turned out for him. With BC he meant "Before Computers" .....

Education on line meetings with rectors of Higher Education were organized to introduce and discuss the plans. It is however not clear to what extent these action plans have materialized.

An extensive overview of the accomplishments of the project per Central Asian partner university was found in the earlier mentioned “Book of Dissemination”. In this document the actual project results are extensively reported on, as well as an elaborate overview of the national efforts to bring the transition to a blended learning environment and the role of the HiEdTec project herein under the attention of a broad audience through a scal of communication media (TV, films, journals and conferences)..

## WP7

### Project Management & Coordination

At the time of the mid-term evaluation the project rules and project management structure had been published and discussed during the first project meeting at the University of Ruse. The management structure is thorough with adequate handles to enable input from all consortium members.

Various evaluations from the Central Asian countries in the Book of Dissemination praise this well-structured approach.

The External Evaluator has no further remarks regarding the “Project Management & Coordination” other than that the project management, together with the EU and Central Asian partners have managed to implement a complicated project, with 15 beneficiary universities in Central Asia, in an extremely challenging period due to the Corona crisis. As we say in English, “The proof of the pudding is the eating” and this case the proof of the project management is being able to adjust its plans, successfully, to deal with very unexpected circumstances.

## Conclusions

Below the relevant conclusions of the mid-term report will be repeated followed by a reassessment of these conclusions given the observations that led to this final evaluation report.

*“Overall, the HiEdTec project is well underway and most of the deliverables that were expected to be produced by the end of March are available on the project web site.”*

At the end of the project, it may be concluded that all of the main deliverables of the project have been produced. As a result, the project leaves behind a modern digitized learning infrastructure for

Higher Education in all of the Central Asian countries, including enthusiastic and well-trained staff to put this infrastructure to use.

*“The project management is quite professionally organized and effective in terms of meeting deadlines in time and involving the partner countries in contributing to the project.”*

The reported high quality of the project management has sustained until the end of the project.

*“The project management should take notice of the fact that producing documents as deliverables in the project are not goals in itself, they should serve a mean. It is not always clear what will be or has been done with the deliverables. Follow-up actions should be discussed during the project meetings.”*

At the end of the project, it is still not always clear what has become of the plans that have been formulated. The plans leading to tangible results (such as virtual classrooms, virtual libraries with, often excellent, course material, syllabi for teachers, etc.) can easily be verified on the project web site and during visits to the partner universities for meetings. However, it is less clear what has been done with deliverables such as WP 1.4<sup>3</sup>, WP 1.5<sup>4</sup>, WP 1.6<sup>5</sup> and WP 2.3<sup>6</sup>. Having a good plan is a good start, but these plans need to be implemented in all of the Central Asian countries in order to expand the more tangible outcomes of the project to other institutions and provide means for sustainability. The implementation of these plans is of course the responsibility of Central Asian actors. These actors are not only the HiEdTec project participants, but the whole academic community, including government institutions involved in the development of the Higher Education sector in their country, that have to act together.

*“As said, it is still too early to assess the impact of the current global Corona crisis. It is however safe to assume that the impact will be severe and long lasting. Until now the project management has not presented any damage control plans. [text deleted]”*

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<sup>3</sup> WP 1.4: Recommendations for Adapting the Central Asian HE System to the Needs of the Digital Generation

<sup>4</sup> WP 1.5: Sustainable academic network for the sharing of experience and exchange of good practices in the field of innovative educational technologies and didactic models

<sup>5</sup> WP 1.6: Activities to establish a Sustainable academic network for sharing experience and exchange of good practices in the field of innovative educational technologies and didactic models in countries

<sup>6</sup> WP 1.7: CONCEPT for adapting the education system to the digital generation

The assumption regarding the severity and duration of the Corona crisis proved to be correct. Within the course of 2020 damage control plans were set up and implemented, including a 12-month, budget neutral, extension of the project. Apart from some small delays in some deliverables, the objectives of the project have been reached, despite the setbacks that were caused by the Corona crisis.

*“Finally, the negative effects of the Corona crisis to society should be put to use. The 15 Central Asian universities have created Centers for Innovative Educational Technologies with modern technology to support educational processes. These universities are supported by European universities of high standing in the area of the use of technology in (higher) education. Now is the moment to put this all to use in providing solutions for the challenges that students and teachers are facing. Now is also the moment to initiate discussions with governments and HEI managements to enforce the recommendations that have been formulated in the earlier mentioned Deliverables with recommendations.”*

In a sense the Corona crisis has been an enabling factor in the success of the HiEdTec project. The project has proven that the use modern technology in the Higher Education setting can replace the traditional educational approach without loss of quality. This statement is supported by various remarks from the Central Asia partners in their “Overall evaluation of the usefulness of the project” in the Book for Dissemination.

## Overall conclusion

Looking at the 15 Central Asian Higher Education Institutions, the project management team, Central Asian and European partners together, have successfully reached the goals set out at the beginning of the project in 2018 and at various points even excelled the targets that were set.

To come back to the aim of the project, as noted at the beginning of this this report, at the institutional levels of the Central Asian countries, the HiEdTec project left behind an advanced digital environment, skilled staff and guidelines for new learning and teaching methods.

It is however not clear what the impact of the project will be at the national level of the Central Asian countries after the end of the project. Stakeholders, besides teachers and learners, have been reached, but at this moment concrete measures are not yet visible.

The Book of Dissemination is full of future (i.e. after the termination of the project) strategies, plans and policies to be implemented after the end of the project. In an ideal world a follow-up activity should be initiated to ensure that plans are implemented to enable the expansion of the results of the project to the whole HEI sector of the Central Asian countries.

## Competences of the External Evaluator

The External Evaluator has, for more than 40 years, been heavily involved in the introduction of ICT in Higher Education and Research, first at the University of Groningen in The Netherlands and since 1990 at universities in other parts of the world. This involvement was not only the technical introduction, but also as user of new technology as teacher at the university. Since 1999 he has also been involved in the introduction of ICT in Higher Education and Research in Central Asia, first in the NATO funded Silk project (1999 – 2009) and subsequently in three phases of the EU funded CAREN project (2009 – 2019).

The External Evaluator did not have any prior involvement with the work of the principal project coordinator of the project (University of Ruse), or any other EU participants in the project, before the beginning of the HiEdTec project.

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Attachments:

1. Mid-term evaluation
2. Table of achieved results.