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“Filling gaps and removing traps
for sustainable resource management”

Promoting Modern Teaching in Agricultural Sciences at Universities in Countries of the Former Soviet Union

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Abstract

The Higher Education institutions of countries of the former Soviet Union had a justified reputation of technical and scientific excellence. In the area of agriculture specialists graduated from universities well suited to a farming system in which decisions were taken centrally and their role was to focus on specific areas of production. Teaching was based on the delivery and acquisition of knowledge in a didactic system and assessment through the repetition of the information gathered in the lecture room. However post-Soviet agriculture requires more dynamic flexible employees capable of critical thinking and problem solving. The industry requires generalists with transferable skills rather than specialists with a narrow area of expertise. For the countries of Armenia, Ukraine and Uzbekistan the pre-Soviet systems of university education are no longer fit for purpose.

The TOPAS project has promoted and introduced teaching and learning methods in these countries' universities, which put the student at the centre of the process and where assessment is for learning, rather than of learning. This encourages the development of those skills which enhance employability and make graduates suitable for the workplace. Techniques such as the Flipped Classroom, Problem Based Learning and Case Studies have been at the centre of this approach. Use has also been made of digital technologies to widen the student experience. This has been achieved through workshops, observation, peer discussion and experiential learning. Academics in the partner universities have introduced many of these techniques into their teaching and learning with immediate positive demonstrable benefits to the students.

The challenge for the future is to disseminate these techniques across the institutions, encouraging staff ownership to include these within their teaching and to gain institutional support at all levels to ensure that graduates can contribute effectively to such a significant sector of the economies in each of these countries.

Keywords: Agricultural management, ERASMUS+ TOPAS, higher education, teaching approaches