

SHORT TERM SCIENTIFIC MISSION (STSM) SCIENTIFIC REPORT

This report is submitted for approval by the STSM applicant to the STSM coordinator

Action number: CA 15221
STSM title: Analysis of institutional support in the fields of writing, research, learning and teaching at the TU Wien – Example of good practice and possible application at the University of Novi Sad
STSM start and end date: 01/08/2019 to 09/08/2019
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PURPOSE OF THE STSM:

The University of Novi Sad, with more than 50,000 students and 5,000 employees, belongs to the group of comprehensive universities, which are providing nearly all fields of science and higher education. Institutional support in the fields of writing, research, learning and teaching at the University of Novi Sad is at the very beginning. There are many unresolved issues that should be dealt off. According to constant desire to move forward, the improvement of institutional support can be achieved following the experience of colleagues at the other Universities, who already implemented good practice in their work. The aim of this STSM was to analyze centralized supports for four key higher education activities – research, writing, teaching and learning, at the Technische Universität Wien (TU Wien), with the final goal to apply acquired knowledge and experience to the development of institutional support at the University of Novi Sad. The focus was on technical science - chemical engineering scientific field. The host institution, TU Wien, is among the most successful technical universities in Europe and Austria's largest scientific and technical research and education institution, with more than 30,000 students and 5,000 employees. At TU Wien, research, teaching and learning have been conducted for over 200 years under the motto "Technology for people". This University offers a different kind of institutional support, in order to motivate academic staff to improve their knowledge and skills, and to provide better recognition of the University in Europe and World. Besides the positive outcome related to the enhancement of the institutional support for four key higher education activities at the University of Novi Sad, and future collaboration between two Universities, this STSM should also contribute to COST action scientific objectives regarding the development of advancing effective institutional models towards cohesive teaching, learning, research and writing.

DESCRIPTION OF WORK CARRIED OUT DURING THE STSM

During the STSM, the following steps were taken in order to achieve the proposed aim:

1. Data gathering using different research tools, based on existing methods already used within this COST action.

- The questionnaire. The teachers/researchers, as well as Ph.D. students, filled out the questionnaire, which was based on an existing questionnaire, with some modification relevant to the discipline. The gender and age balance was taken into account during the selection of the candidates. Since this University is technically oriented, the gender balance was a little bit disrupted (30% female and 70% male examinees). All candidates have experience in all four fields relevant to this research. The aim of this kind of research was to get a better insight in the subjective perception of academic staff position (teacher/researcher), in factors that contribute to professional success, as well as missing elements, which present a barrier to professional promotion and development.

- The focus group. The focus groups members were teachers of different career stages with the aim to interact and influence each other during the discussion and consideration of ideas and perspectives, giving us helpful information related to COST Action CA 15221 objectives. The questions necessary for running a focus group were based on transcripts from previous research related to this COST Action.

2. Data organization and analysis aiming to find crucial conclusions relevant to the success of the host institution in the field of the education and research, and their visibility in the scientific community, as well as the presentation of different models of centralized institutional support.

3. Analysis of the current state, and the possible application of the proposed models at the home institution.

Furthermore, I had an opportunity to speak with the person from the Human Resource Development who gave me insight in social politics of the University, which is very important from the different aspects such as employee satisfaction, motivation, etc. First, their mission is to give all members an equal opportunity to realize their potential, promoted in particular for women, who are traditionally under-represented in technical fields. Human Resource Development at TU Wien provides support to new employees on their arrival by means of an induction program. This support includes welcome events and a special program of basic seminars to provide an overview of the processes and services at TU Wien. Also, TU Wien offers many benefits to its staff including a program of continuing education, company benefits, workplace health promotion, a company kindergarten and much more.

DESCRIPTION OF THE MAIN RESULTS OBTAINED

According to data collected during my research within this STSM, TU Wien centrally provides the institutional support in the field of teaching and learning, research and professional development, but there is a lack of institutional support in the field of writing and publishing.

In the area of **writing**, the other workload, as well as lack of time generally, presents the significant barrier to writing. Some of the examinees think that lack of formal writing training is also important for the improvement of this skill, generally. All examinees agree that significant impact on their motivation to write has the support of colleagues, the opportunity to collaborate on writing tasks, desire to share work, passion for their discipline and belief that their writing can make a difference. Based on their opinion, the centrally provided writing support, which leads to effectiveness and success in writing, is structure feedback and access to relevant literature, followed by English language support, editor corrections and training in publishing and supervising others writing. However, one piece of advice that all of them will give to a young researcher at the beginning of carrier is to write as much as possible and publish as soon as possible.

In the area of **research**, the most of examinees think that intrinsic motivation, desire to learn more, desire to progress the field and the opportunity to collaborate with colleagues are the factors with the highest influence on motivation to be a successful and effective researcher. The most significant research support, provided by TU Wien, is realized throughout internal seminars, occupational career training course just for women at the University, financial and legal support, while the missing elements are money and time.

Nowadays, the TU Wien provides different models of institutional support to research:

- The Research and Transfer Support department supports researchers and research groups in various research and utilization activities.
- EU Research Support (EURS), as a central service provider at TU Wien, provides information and advice to researchers, administrative staff and management in preparing and carrying out EU projects and other international research projects.
- Research Marketing organizes presentations of TU Wien at trade fairs, and supports appearances of research groups at the specialist fairs.
- Centre for Research Data Management is TU Wien's point of contact answering the questions regarding the research data.
- TU Wien's Innovation Incubation Center (i2c) offers bespoke activities on the topic of entrepreneur-ship – from training and incubation programs, start-up consultancy and lecture series through to networking events with potential investors and industry partners.
- The division of Research Information Systems supports TU Wien in terms of regular evaluations and continuous analyses, and guides the strategic development of the research information systems at University.

In the area of **teaching**, the 80-90% examinees do not have formal recognition of their teaching expertise and they did not receive any initial teaching training, as well as institutional support for teaching during the first year. Such results are expected because this type of institutional support presents a novel approach of University management, which is provided for students and staff at the beginning of a career. The teachers with 10 or more years of experience did not have any institutional support or training in order to improve teaching, learning, research or writing skills. Further, all examinees agree that the most important factor in teaching development is feedback from students.

However, to motivate the teaching staff, TU Wien offers different models of institutional support and provides an extensive range of teaching technologies for administering and managing to teach, through educational training and further education:

- The Best Teaching Awards (awarded annually since 2017).
- Varies formats in training of continuous education in higher education didactic, introducing participants to core concepts and research-based approaches to teaching and learning.
 - The Teaching workshop program, which includes sessions related to general aspects of higher education teaching, aiming to prepare young teaching staff with little practical experience for their role.
 - Different sessions related to higher education teaching for more experienced teaching staff with a specific interest in certain topics.
 - Social skills for tutors – The seminar is rounded off with an account of the personal experiences of an experienced tutor (role model) and particularly challenging teaching scenarios. Colleagues can also attend each other's classes and provide feedback afterward.
- Excellence in teaching and usage of various tools for quality assurance. An important part of continuously improving teaching is the course evaluation carried out by students.
- Various projects have been initiated to improve the conditions of studying and teaching at TU Wien and to enhance the quality of the studies.

In the area of **professional development and learning**, most examinees define the support of engaging in EU/international projects as very helpful. They all agree about the importance of constant learning, pointing it out as a prerequisite to be a good teacher or researcher.

Regarding personal traits/dispositions, the curiosity, optimism and openness to collaboration are the most influential factors that contribute to successful writing, research, teaching and learning. Moreover, exchange of opinions, as well as talking about research, results and writing can significantly help you to improve yourself in academic work. Generally, the lack of time is the obstacle to progress, and all examinees agree that you cannot be equally successful in all four fields, i.e. somehow, you profile yourself as better teacher or better researcher.

Analysis of the current state at the University of Novi Sad indicate that the University provides institutional support in the field of research, through the Office for international cooperation, which offers information about ongoing project proposal and programs for academic staff and students exchange, but they do not provide professional help in preparing project proposal and implementation of project activities. Also, the University of Novi Sad annually awards one young scientist and researcher below 35 years, motivating young people to improve their research through a number of published papers and citations. Regarding further progression and recognition, some of the proposed models of institutional support at TU Wien, namely The Research and Transfer Support, EU Research Support, Research Marketing and Centre for Research Data Management, can be successfully applied at the home institution, without significant financial and structure investments.

Comparing the institutional support in the field of teaching and learning, the course evaluation carried out by students is the only common activity recognized on both Universities. Significant progress in this field can be achieved by applying different models of teaching institutional support, mentioned above and realized at TU Wien, especially workshops and trainings of continuous education in higher education didactic.

I hope that in the next few years, the University of Novi Sad will develop an adequate model(s) of institutional support for higher education and, thus, will achieve significant progress in this field.

FUTURE COLLABORATIONS (if applicable)

The University of Novi Sad is open for further collaboration with TU Wien in the field of research, as well as in the field of student and staff mobility. It has been planned to summarise findings and conclusions of this STSM in a conference paper, as a result of collaboration these two institutions within the COST Project CA 15221.