



University of Niš

EACEA 530577 – 2012 – RS – TEMPUS – JPCR



**Improvement of Product Development Studies in Serbia And
Bosnia and Herzegovina**

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Faculty of Mechanical
Engineering



Tempus

Meeting of the Internal Project Management (IPM)

Activity date: 07th and 08th of July 2014

Organizer: Technical University Sofia

Location: Technical University Sofia, Sofia, Bulgaria

Present: 10 participants out of 10 with voting rights

- UNI – Prof. Dr.-Ing. Vojislav Miltenović,
- UB – Prof. Dr.-Ing. Radivoje Mitrović,
- UNIKG – Doc. Dr.-Ing. Mirko Blagojević,
- UNS – Prof. Dr.-Ing. Siniša Kuzmanović,
- UBL – Doc. Dr.-Ing. Milan Tica,
- UES – Doc. Dr.-Ing. Biljana Marković,
- SVEMO – Doc. Dr.-Ing. Adisa Vučina,
- TUS – Prof. Dr.-Ing. Stefan Stefanov,
- KIT – Dipl.-Ing. Norbert Burkardt,
- STU – Ing. Jana Gavačová as a replacement of Prof. Dr.-Ing. Miroslav Vereš

and 11 other participants.

Report:

The meeting was opened at 04:00 h on Monday, 07th July 2014 by the Coordinator of the project Prof. Dr.-Ing. Vojislav Miltenović. The venue of the meeting was the Conference Hall at Library building of TU Sofia. Coordinator of the project passed the chairman position to meeting host Dean of FDIBA Prof. Dr.-Ing Stefan Stefanov and Vice Rector Prof. dr.-Ing. Georgi Slavchev Mihov. After them, ass. Bachvarov had presentation of TU Sofia.

Chairman opened the meeting, introduced participants with meeting Agenda, and invited presenter Dipl.-Ing. Milan Banić to present the first topic of the meeting – Regular project management.

Mr. Banić thanked chairman, greeted participants and started with presentation about Regular project management. He informed the participants that the aim of his presentation is informing of

Internal Project Management (IPM) committee about all realized project management activities since start of the project. In this regard, he presented performed activities and revised workplan from project proposal. Mr. Banić explained in detail all workplan activities marked as finished and partially finished or not started.

After that, Mr. Banić informed participant about Report from monitoring visit. On the beginning, he inform about general note from European Commission and after that he start to focus on each recommendation that was given by EC as well as measures that were taken by Consortium members. First recommendation is to intensify the cooperation with non-academic partners in consortium and to ask them to contribute or critically comment the list of competences and learning outcomes of future graduates. For this recommendation University of Kragujevac already had meetings with representatives of Regional Chamber of Commerce in Kragujevac and National Employment Service. Mr. Banić requested other partners to try to have meetings with other non-academic partners and to make actions according to Project proposal.

Second recommendation is to ask the EU partners to provide peer review of the programmes created. In this sense UNI already submitted curriculums for peer review to KIT and noted that the detailed plan will be made later during the meeting. Next recommendation is to involve students and to ask for their opinion about modernisation of curricula. Mr. Banić informed that UNI agreed a meeting with representatives of Student parliament to obtain their opinion and he requested others to follow the same path. Next recommendation is to clearly distinguish what are the courses/modules created through project and those that came up as a regular activity for the new cycle of accreditation of study programmes at the institutions. Mr. Banić informed that distinction is clearly made in the Interim report.

A another remark was to have accreditation of a completely new master programme (instead of having a new module within the existing programme) which could be a better solution within the project framework. He informed that management of Faculty of Mechanical Engineering UNI denied this due to institutional policy.

Furthermore, EACEA recommended that interdisciplinary nature of the programme should be secured by engagement of teaching staff from other faculties (especially Economics). He informed that UNI engaged one additional professor from the field of Economics.

Again, the monitoring report recommended organising an additional meeting with Regional Chamber of Commerce (RCC) and the National Employment Service (NES) to discuss their role and responsibilities for the project might be envisaged. He informed that additional meetings must be organised, NES didn't even signed the partnership agreement and UNIKG should try to set a meeting with UNI, UNIKG and NES.

Furthermore, it is recommend to reconsider making a new, wider, need analysis of the labour market with the assistance of RCC and NES, before deciding about the topics of the continuous education courses. In this regard, forecasting needs for the future, based on the experience of EU colleagues and their countries can also be useful. Mr. Banić urges for meetings with the local chambers of commerce.

Next recommendation is to make an effort to see if training courses validation and/or allocation of credits can be ensured by HEIs providing the trainings and to check the status of the university centres for LLL and see whether the course provision can be organized with their administrative and PR support. Mr. Banić informed that representatives from UNI in consortium will have meeting with head of Center for continuous education at UNI and he requested others to do the same.

Project officer also recommended to disseminate the information about continuous education courses through RCC and NES and raise the interest of companies and individuals for professional improvement. Mr. Banić urged other partners for meetings with RCC and NES.

Furthermore, it is requested to select at least part of the materials "stored" in the project Dropbox folder and to make them available to wider public via project webpage (e.g. materials from training courses should also be publicly available). Mr. Banić informed that the requested information are now publicly available on project website/exploitation of results.

Next recommendation is to involve representatives of colleges of applied studies into deciding the training course content that would suite them most. For example, the organisation of a round table to discuss the harmonisation of the curricula in this field, together with university partners would be

helpful. Mr. Banić informed that training sessions were defined at the meeting of PMC in Novi Sad, together with representatives of colleges of applied studies. The last recommendation is to define inter-project coaching activities which are already defined with projects 144959-2008 and 544278-2013. UNI already consulted the project CONGRAD (17153-2011) for the methodology of collecting data about former graduates.

After this he inform that monitoring visit by TEMPUS office in BA was held on 06.05.2014 in East Sarajevo and that report by project officer (EU) from monitoring visit is expected in a few weeks.

He informed that the most significant job in 2014 - Interim report was submitted on 15.04.2014. It consists of 60 pages with 500 pages of supporting documentation. The decision about report is expected till the end of July and he thanked to the IPM members for swift and quality response. He informed that in order to send Request for payment in Interim report Consortium need to spend 70 % of 1st instalment which is 263775 €. Up to the IPM Meeting in Sofia was spend only 187,963.46 € and he urges all to spend funds in order to send Request for payment as soon as possible.

He informed that all technical and financial reports (cash flow) were submitted till 15.03.2014 as it was agreed at PMC meeting at UNS, but only BU, KIT, STU and UNIKG delivered the full financial report. In June coordinator delivered a call to submit the cash flow up to 01.07.2014.

He informed that UNI Rector decision is that a single euro will not be paid to all the project partners (no further financing of activities) if the financial documentation is not arranged and that this decision is even valid for project coordinator and that UNI vice rector for financial affairs is requesting a monthly report about the project spending. Only UNI, BU, UNIKG, KIT and STU are qualified for further financing. The rest of consortium will not get further payments until the supporting documentation is sent to coordinator and the final deadline for this activity is 01.09.2014.

After this, he gave answers to the frequently asked questions such as Co-financing of travel costs, Co-financing of Printing and Publishing, pre-financing procedure, Budget changes. On the end of presentation he presented the revised work plan for next 6 months and he remind that next meeting is going to be in Banjaluka (UBL) and they need to define meeting dates. After discussion, the chairman Prof. Dr.-Ing. Vojislav Miltenović closed the first meeting topic.

First part of the meeting concluded at 16:15 h.

Meeting chairman suggested continuing of meeting with Topic 2. Dr.-Ing. Alekandar Miltenović presented the report of realization of activity WP 1.3 and WP 1.5. He notified the meeting participants that report was made by WP 1 manager Prof. Dr.-Ing Dušan Stamenković. Mr. Miltenović reminded participants that UNI promised in Project proposal introduction of new curriculum in field of MPD&IM and modernisation of Bachelor, Master and Doctoral studies in field of Industrial Product Development. Introduction of new master study programme Innovation & Product Development Management is in progress and accreditation documentation will be finished until end of July 2013. Next step is to approve the new curriculum by UNI Senate and after that the documentation will be submitted to National accreditation body. It is expected that first enrolment should be in year 2014/15. He presented study matrix of new master and emphasized that from 12 subjects in study matrix 8 are new and 4 are reconstructed. On the end he presented that activity of modernisation of Basic, Master and Doctoral studies in field of Industrial Product Development is finished and Faculty of Mechanical Engineering was granted accreditation on 07.03.2014. In new academic year 240 students will be enrolled at Bachelor studies, 24 students Master studies and 25 students at Doctoral studies.

Meeting chairman suggested continuing of meeting with the report about realisation of WP1 at UBL. Dipl.-Ing. Milan Banić presented realisation of activity WP 1.4 and WP 1.5. He notified the meeting participants that report was made by participant from UBL Doc. Dr.-Ing. Milan Tica. Mr. Banić reminded participants that UBL promised in Project proposal new curriculum in field of Eco-product development and restructuring of existing studies in field of Industrial Product Development. Introduction of new Bachelor course in Mechanical Design and new Master course in Mechanical Design with focus on Eco-product development is in progress and it is expected that first enrolment year will be 2015/16. UBL had meetings with representatives from UNI and STU in order to analyse curriculum reforms as well as curriculum contents and structure. With partners from STU the recommendations and further steps for introducing of new Master curriculum on UBL were

defined. The reform of curriculum was started on 17.06.2014 on a meeting of Faculty of Mechanical Engineering council. All the Departments agreed that the curriculum system should be changed from 3+2 to 4+1. The commission for curriculum reform was appointed and a formal decision was made to move to 4+1 system for Bachelor and Master studies. On the end he presented study matrix on Master level.

Second part of the meeting concluded at 17:45 h.

Chairman opened the next topic of the meeting regarding the realisation of WP 2. First Mr. Banić presented results of activity WP 2.1: Training of PC University teachers for modernisation of pedagogical methodology by EU partners. He gave an overview of trainings realised up to this meeting, than he announced participants about four trainings that are going to be realised during meeting in Sofia and two training that will be realised at next meeting in UBL on the end of year. After this Mr. Banić presented results of WP 2.2: Transfer of knowledge and expertise of EU partners to PC University teachers in the field of management of Product Development, Innovations Management, Eco-Product Development and Industrial Product Development. He gave an overview of trainings realised up to this meeting, than he announced participants about one training that are going to be realised in UNI probably in September 2014 and two more that are going to be realised at next meeting at UBL on the end of year. He presented a list of participants from PC Universities that are going to be trained for one month at one of EU Universities. He notified that UBL and SVEMO didn't submit the name of assistants that are going to be trained and he urged them to do it as soon as possible. After this Mr. Banić presented results of WP 2.3: Procurement of equipment, software and literature. He remained that the changes of the equipment procurement list were approved by Internal Project Management (IPM) at IPM meeting in Novi Sad on 27.11.2013, the changes in equipment list were approved by IPROD project officer and the tender for procurement of equipment was issued for RS universities on 31.12.2013. He gave a list of procured equipment of Universities in RS as well as a list of unsuccessful procurement at UNI and BU. Unsuccessful procurement was due to small value of tendering lots or broken distribution channel and he explained that there will be new procurement procedure till the end of 2014. For tendering procedure in BA he remind that the changes of the equipment procurement list were approved by Internal Project Management (IPM) at IPM meeting in Novi Sad on 27.11.2013, the changes in equipment list were approved by IPROD project officer and the tender for procurement of equipment was issued few days ago in two lots. He gave a list of equipment that he going to be procured in BA. For any further procurement the participants need to wait until all planned activities are finished and that is expected to be in January 2015. He explain that for that is needed approval by coordinator and project officer and that no equipment can be of the same type – sort as already procured.

Chairman Prof. Vojislav Miltenović presented results of WP 2.4: Preparing and publishing of new University textbooks and authorised lectures. He presented publication list for all Universities where he notified that he was trying to reduce the number of textbooks by merging ideas from different Universities into one book with more authors. The total number of textbooks is 15. He emphasised that there were no remarks on the list in foreseen deadline and that content of textbooks can be changed during writing. Also, he emphasised also that textbooks cannot be sold and that they must be free. He proposed that the number of copies should be at least 200. Meeting participant agreed with the coordinator and before establishing the final number of copies participants should check if some partner has a need for additional copies. If no additional demands are existing please sent 10 copies to partner Universities in RS and BA (60 total). Prof. Stefanov (TUS) demand for their library 5 copies per textbook. Chairman emphasised that publication deadline is 01.09.2015 and that authors of publications should deliver expected publication dates till 30.09.2014 and that publication deadlines should be published on a project website.

Mr. Banić continued presenting results of WP 2.5: Development of the Student Practice Programme. He notified that RS Universities defined student practice programme through curriculum of Study practice on various study programmes. Partners that want to participate in this activity must have a formal document which explains the specifics of student practice programme. For example, UNI defined study practice programme targeting the new Master curriculums in WP 1.3 and WP 1.5 –

student team projects on a realistic task. On the end he explain possible mistakes that can occur when University make collaboration with a company.

Mr. Banić continued presenting results of WP 2.6: Enrolment of Students into new and Modernised Accredited Degree Programs. He explained administrative activities in this activity: Administrative paperwork, Entrance exam, Quality survey for students (necessary for self evaluation) and Quality survey for finished students (necessary for self evaluation).

Meeting chairman suggested continuing of meeting with the report about realisation of WP 4. Doc. Dr.-Ing. Milan Rackov, in the name of Prof. Dr.-Ing. Siniša Kuzmanović, gave presentation about the realization of WP 4. Training of teachers of colleges of applied sciences in the field of Industrial Product Development took place on mountain Kopaonik from 25th till 30th May 2014. On the first day, Sunday 25th May, the meeting of all participants was held and it was agreed about training program and working hours during next following days. Teachers on the training were Prof. Vojislav Miltenović (UNI), Prof. Radivoje Mitrović (BU), Prof. Siniša Kuzmanović (UNS), Prof. Nenad Marjanović (UNIKG) and Ass. Žarko Mišković (BU). Every College of Applied science in Consortium sent two participants to the training. At the end, there was some analysis and discussion about finished training, some opinions were given and certain conclusions regarding training were made. In the following school year period, teachers of colleges of applied science need to set out specific areas derived in training course and to involve them in learning process and thereby innovate the subject in the field of Industrial Product Development according to the given guidelines. Next year, within IPROD project, it should be carried out an analysis of these obligations.

Third part of the meeting concluded at 19:15 h.

The meeting was continued at 09:00 h on Monday, 08th July 2014 at the same place.

Doc. Dr.-Ing Mirko Blagojević as WP 3 manager presented results of WP 3. He notified that in March 2014 comments and suggestions for document *Plan For Connecting Universities With Regional Companies* came from the EU reviewers. After which is written the final document. He reminds that on the meeting in Novi Sad (25.11.2013-28.11.2013) 15 trainings were adopted. After that UNS realised training seminar in selected chapters of contemporary product development at Faculty of Technical Science (UNS). Training was realized from 7th April till 11th April 2014 (from 15 till 19 o'clock). Lecturers were: Prof. Dr. Siniša Kuzmanović, Prof. Dr. Zoran Anišić, Assist. Prof. Dr. Dejan Lukić, Assist. Prof. Dr. Mijodrag Milošević and Assist. Prof. Dr. Milan Rackov. Number of companies were 10 and number of participants were 21. UNIKG realized training Calculation of Machine Element Using Modern Software at Faculty of Engineering (UNIKG) from 4th April till 6th April 2014 (from 10 till 18 o'clock). Lecturers were Prof. Dr. Mirko Blagojević, and asisstant Miloš Matejić. Participants were 11 unemployed persons from National Employment Service. UNIKG realized training: Basics of 3D modeling of parts in CAD software at Faculty of Engineering (UNIKG) from 11th April till 13th April 2014 (from 10 till 18 o'clock). Lecturer was Prof. Dr. Nenad Marjanović. Participants were 10 unemployed persons from National Employment Service. Planned trainings to the end of the year are:

- Structural analysis (UNI) at GOŠA Machine and Equipment Factory, Smederevska Palanka (RS)
- Protection of intellectual property – patents and patent documentation (BU) at Factory of Rolling Bearing and Cardan Shafts – FKL, Temerin (RS)
- CAM – NC manufacturing (CAD module) (UES), ORAO, a.d. for Production and Overhaul, Bijeljina (BA)
- Basics of Eco-design (UBL)

Fourth part of the meeting concluded at 09:45 h.

Chairman opened the next topic of the meeting regarding the realisation of WP 5. First Mr. Banić presented results of activity WP 5.1: Peer Review of New and Modernised Curriculums, Continuous Education and Training Courses and Pedagogical Methodology. He explained that Peer

review need to be done by EU partners and he suggested that every PC send curriculums to two EU partners:

- UNI will send to KIT and TUS
- UNS will send to TUS and STU
- UKG will send to STU and KIT
- BU will send STU and TUS

After a short discussion meeting participants agreed that deadline for submission of reviews is 15.08.2014 and deadline for review written report is 01.11.2014.

Mr. Banić continued presenting tasks of WP 5.2: Self-Evaluation of Created/Modernised Educational Programs. He explained that for realisation of this activity are needed further actions:

- Perform self-evaluation for the external quality control.
- Gather data from standard questionnaires regarding the quality of the developed/restructured curriculums.
- Gather data from standard questionnaires regarding the quality of pedagogical work.
- Gather data for students which finished studies

He show questions that Coordinator is receive from few partners in Consortium regarding creation of work group and fund spending. Creation of work groups has to be done on local level and partner coordinator has to form them. Funds have to be spend on printing (questioners, reports etc).

Mr. Banić continued presenting tasks of WP 5.3: Inter Project Coaching. He explained that in Tempus monitoring report from February 2014 was given recommendation to arrange meetings with projects:

- 144959-2008 “Master Studies and Continuing Education Network for Product Lifecycle Management with Sustainable Production” (University of Novi Sad) (MAIN)
- 544278-2013 “Mastering innovation in Serbia through development and implementation of interdisciplinary post-graduate curricula in innovation management” (Universities of Novi Sad, Kragujevac and Nis). (PLM)

It can also be useful to organize inter-project coaching with the project CONGRAD 17153-2011.

Responsible for organisation of the meetings are MAIN – UNI, PLM – UNS and CONGRAD – UNI. For projects MAIN and CONGRAD, UNI has already scheduled meetings but for meeting with MAIN didn't occur due to obligations of MAIN coordinator.

Mr. Banić continued presenting results of WP 5.4: Implementation of Action Plan for Quality Assurance. Goal of this activity is implementation of recommendations for achieving of higher quality of project realisation. Continuous activities for achieving this goal are:

- Report from quality evaluation board
- Peer review
- Self – evaluation
- Inter project coaching
- Monitoring visits
- PMC and IPM decisions

He show questions that Coordinator is receive from few partners in Consortium regarding this activity. He emphasis that for the project as a whole - project coordinator in overtaking measures for improving of quality of realisation and that partner coordinator should make an action plan that are covering the specific quality concerns for your institution and implement it.

Mr. Banić continued presenting tasks and results of WP 6. For WP 6.1 participants has to increase the quantity of information available on the project website. He reminds that there is still no news about restructuring/introducing of curriculums. He notified for WP 6.2 that numerous promotional materials were already defined but there is problem of consistency of the publications. Partners should use templates that were defined by partners who made them first. For WP 6.3 he notified that one paper is already published at KOD 2014. Conference COMET-a is going to be in December 2014 and UNI, UNS, UNIKG, UBL should prepare papers regarding the curriculum reform. Others should share some experiences in some aspect of project realisation. He reminded meeting participants that there is going to be a project conference at the end of the project. For WP 6.4 he

reminded that there is going to be dissemination workshop at meeting UBL and he urged participants to check the possibility to organise dissemination workshops at regional chambers of commerce. For WP 6.6 only UNIKG and UNI provided information about activities at job and educational fairs. Mr. Banić urged meeting participants to provide information or participate in events already organised by their home institution.

Mr. Banić continued presenting tasks and results of WP 7. For WP 7.1 he reminded that all accreditations are finished except one master program at UNI which will submit for accreditation till the end of July. He show questions that Coordinator has received from partners in Consortium regarding budget changes and possibility to use funds for the preparation of a training in product development in the equipment purchased under the project for high school students in the field of product development. Budget changes are possible but for significant changes Project Officer has to be asked. Mr. Banić emphasised that high schools are not target of IPROD and we should target Colleges of Applied Sciences or unemployed persons. For WP 7.2 several contracts were already established (UNIKG, BU). He reminded that the recommendation by KIT was to be persistent “on knocking on the company door”. Consortium participants have to visit companies and to try to present our services to them. He answer on question that Travel Costs should be spend to go to company in order to sign a Cooperation Agreement. For activities WP 7.3 and WP 7.4 no activities were performed because a call for proposal was not issued. UNIKG and UNS are responsible for monitoring of these activities. For WP 7.5 the plan was made but we are not satisfied with the quality of the report. Currently second stage refinement is ongoing and after the second stage a third stage of refinement will be preformed. The PC partners will provide a fourth refinement loop after which will be reviewed by the EU partners. Mr. Banić show questions that Coordinator is receiving from partners in Consortium regarding possible competition for training that can occur on web sites of national employment services. He notified that the calls for proposals are usually issued at the end of the year. He urged partners to consult local branch of NES and WP 4 manager to contact the Ministry of education.

The chairman thanked participants and concluded the second day of the meeting of Internal Project Management.

The fourth part of the meeting concluded at 12:30 h.