



I^{IP}ROD

Internal Quality Control and Monitoring

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Internal Quality Control and Monitoring: Report 1

- First internal quality control report: 24th November 2013, Novi Sad
- Overall progress of project activities against the implementation schedule can be assessed as quite good, although some **delays** in providing deliverables 1.3 , 1.4 , 2.3, 3.2, 4.2, 5.3, 6.6, 7.1, 7.2, and 7.5 could be observed. The real start of the project was marked by the kick-off meeting which happened **two months after** the official project beginning. In addition, work packages are extensive and involve sets of **demanding** tasks. In some cases, planned activities were entirely in the domain of the **EU partners**. In other cases (2.3), the delay was caused by the university **administration**.
- Looking at the postponed deliverables, I concluded that at that moment, these delays were minor and did not pose a risk to the project overall results, particularly having in mind that all these activities are ongoing, some of them already in the final stage.

Internal Quality Control and Monitoring: Report 2

- My task at the moment is to assess the progress made in the meantime, and the most effective way to do it is probably by reviewing the deliverables of all WPs.
 - **WP1**
 - **Introducing of content and modernisation of curricula in the field of Management of Product Development, Innovations management, Eco-product development and Industrial Product Development (duration 1st -8th month)**
 - 1.1 Definition of required competences and learning outcomes of curricula, Report, December 14, 2012.
 - The 9-page report has been completed after some delay in 2013. It is downloadable from dropbox (WP1/1.1). It has also been published on the IPROD website (EXPLOIATATION OF RESULTS). **Delayed but accomplished.**



Internal Quality Control and Monitoring: Report 2 WP1

- 1.2 Comparative analysis of EU partners and PC curricula, Report, February 14, 2013
 - The 10-page report has been completed in 2013. It is downloadable from dropbox (WP1/1.2). It has also been published on the IPROD website (EXPLOITATION OF RESULTS). **Delayed but accomplished.**
- 1.3 Development of structure and content of curriculum, Other products, May 14, 2013
 - A new curriculum, **Management of Innovations and Industrial Product Development** at the Department of Industrial Management, University of Nis, was accredited in October 2014. The first group of 26 students was enrolled. (WP1/1.3) **Delayed but accomplished.**

Internal Quality Control and Monitoring: Report 2 WP1

- 1.4 Development of structure and content of curriculum, Other products, May 14, 2013
- The University of Banja Luka: in progress. The expected outcome: A new MA programme Construction and Design; a new BA programme Production-Construction Engineering, with greater product development and eco-design content. The expected deadline: June 2015. **Seriously delayed.**
- 1.5 Development of structure and content of curriculum, Other products, May 14, 2013
- Restructuring of the curricula has been accomplished at all Serbian universities. All the relevant documents can be downloaded from the dropbox (WP1/1.5). Also, a detailed report about the restructuring is given in the Interim Report (pages 26-31). The University of Banja Luka: in progress. **Delayed.**



Internal Quality Control and Monitoring: Report 2 WP2

WP2

Implementation of new and improving of existing curricula (duration 5th -32nd month)

- 2.1 Training of PC university teachers for modernisation of pedagogical methodology by EU partners, Training, February 14, 2015
- Altogether there have been four trainings organised by KIT:
- 14th Dec. 2013: Teaching methodologies at Karlsruhe Institute of Technology (KIT)
- 3rd June 2013: Competence based education
- 29th October 2013: Teaching basics in Product Development – SPALTEN method
- 8th July 2014: On the Job Training Program at Universities – The example of Hector Scool at KIT
- In total, 44 teachers have been trained on these occasions. **Accomplished.**



Internal Quality Control and Monitoring: Report 2 WP2

- STU Bratislava organised two trainings:
 - 28th October 2013: Teaching methodologies – Subjects focused on Product Development
 - 8th July 2014: Positive motivation of students at STU
- TUS Sofija organised one training:
 - 28th October 2013: Teaching methodologies at the Faculty of German Engineering Education and Industrial Management (FDIBA)
- Short reports on all these trainings should be available on the project website under EXPLOITATION OF RESULTS.



Internal Quality Control and Monitoring: Report 2 WP2

- 2.2 Transfer of knowledge and expertise of EU partners to PC university teachers, Training, May 14, 2015
- There were four trainings organised by KIT:
 - 29th October 2013: Integrated Product Engineering Model – iPeM
 - 8th July 2014: Lightweight design Executive MSc Program for Professionals
 - 10th July 2014: Product development – Training Courses for Professionals at Technical Universities
 - 10th July 2014: Lightweight design - Executive MSc Program for Professionals
- There was one training organised by STU in Bratislava:
 - 9th July 2014: Utilization and advantages of skeleton modelling in CATIA environment



Internal Quality Control and Monitoring: Report 2 WP2

- There were two trainings organised by TUS Sofija:
- 8th July 2014: Innovations management at the Faculty for German Engineering Education and Industrial Management FDIBA
- 9th July 2014: Augmenting Product Development Education with Virtual Engineering
- In October 2014 two assistants from UNS i SVEMO have been trained.
- Short reports on all these trainings should be available on the project website under EXPLOITATION OF RESULTS
- 2.3 Procurement of equipment, software and educational, teaching material, June 14, 2013
- After a delay, the tendering procedure was partially completed in January 2014. For UNI, it was continued on 17th October 2014 for a 3D printer. For BU and BIH partners it will be completed in 2015. **Generally delayed.**



Internal Quality Control and Monitoring: Report 2 WP2

- 2.4 Preparing and publishing of new university textbooks, Teaching material, September 14, 2014
 - A publication plan has been made, while the writing of the publications is in progress. A report on WP 2.4 is available on the website (EXPLOITATION OF RESULTS). **Delayed: None of the publications have been published so far.**
- 2.5 Development of the student practice programme, Other products, April 14, 2013
 - A Programme of student practice has been developed for both curricula: Industrial Product Development and Innovation Management at UNI. It is part of the Book of the Courses for both curricula (pages 2 & 30). Generally, Student praxis program is finished at all PCs universities except UBL where it will be defined during reconstruction of the studies. **Partially delayed.**



Internal Quality Control and Monitoring: Report 2 WP2

- 2.6 Enrollment of students into new and modernised curricula, Training
May 14, 2015
- UNI: restructured BA: 222; MA (Industrial Management): 26; MA (Mechanical Engineering): 0 (gap year); **Restructured PhD: ?**
- UNIKG: restructured MA: 1st year: 22 students, 2nd year: 12 students.
- UNS: 1st year of Mechanical Engineering 200+29 (repeated); 1st year at the Department: 50; MA at the Department: 10.
- SVEMO: Vibrations diagnostics of machines: 14 students; Vibrations diagnostics not selected in this term; Integrated product development: 21 students; Industrial design: 27 (next term)
- BU: restructured studies: 200 students
- UBL: 0 **Considerably delayed.**



Internal Quality Control and Monitoring: Report 2 WP3

WP3

Introduction of continuous education courses (duration 5th -32nd month)

- 3.1 Development of business and marketing plan, Methodology, March 14, 2013
- The Plan has been developed and publicised on the website in 2014 (24 pages) (EXPLOITATION OF RESULTS). KIT delivered the second review of the plan. STU and FDIBA should deliver the second review of the plan. **Slightly delayed.**
- 3.2 Development of structure and content of curricula, Other products, March 14, 2013
- In April 2013 the template for writing curriculums for trainings was defined. 15 continuous education courses have been developed as shown in the Interim report, page 39. Available on the website (EXPLOITATION OF RESULTS/WP3.2). **Accomplished.**



Internal Quality Control and Monitoring: Report 2 WP3

- 3.3 Preparing of continual education courses materials, Teaching material, December 14, 2013
- New teaching material has been defined fully for 12 courses. The courses are available on the project website. (EXPLOATATION OF RESULTS/WP3.3).
Accomplished.
- 3.4 Enrolment of participants into continual education, Training, May 14, 2015
- Do sada su održani kursevi:
- 4.-6.04.2014. Calculation of machine element using modern software – UNIKG
- 11.-13.04.2014. Basics of 3D modeling of parts in CAD software – UNIKG
- 7.-11.04.2014. Selected Chapters of Contemporary Product Development – UNS
(course not listed on the website under EXPLOITATION OF RESULTS/WP3.3)
- Short reports on all realised trainings are available on the website of the Project under News.



Internal Quality Control and Monitoring: Report 2 WP4

WP4

Development and introduction of training in Industrial Product Development of teachers at colleges of applied sciences (duration 4th -35th month)

- 4.1 Analysis of state and contents of IPD at colleges of applied sciences, Report, February 14, 2013
- Industrial product development covers only 26.8% of all study programs in high schools in Serbia. The Report (31 slides) on 21 high schools *Analysis of structure and content of Industrial Product Development at colleges (high schools) of applied science in Serbia* is available on the project website since September 2013 (EXPLOITATION OF RESULTS/WP4.1). **Accomplished with a slight delay.**
- 4.2 Definition of training courses, Other products, October 14, 2013
- The curricula for two courses have been developed: Industrial Product Development and Industrial product Design. They are available on the project website since September 2013 (EXPLOITATION OF RESULTS/WP4.2). **Incomplete.**



Internal Quality Control and Monitoring: Report 2 WP4

- 4.3 Preparing of training course materials, Teaching material, January 14, 2014
Teaching materials have been prepared and posted on the website in May and June 2014. Available under EXPLOITATION OF RESULTS/WP4.3. **Accomplished with a slight delay.**
- 4.4 Enrolment of training participants, Training, May 14, 2015
- A training of 11 participants, teachers of colleges of applied sciences in the field of Industrial Product Development was realised 25th-30th May 2014 with the approval of the Project Officer. It is available under News on the website. **Accomplished.**



Internal Quality Control and Monitoring: Report 2 WP5

WP5

Quality control and monitoring (duration 2nd - 36th month)

5.1 Peer review of new and modernised curricula, Report, July 14, 2015

- Although the peer review is not due yet, the meeting of the Internal Project Management which was held in July 2014 at the Technical University of Sofia, was used to prepare a plan for the peer review. The Minutes are available on the website under NEWS. The deadline for submission of reviews was 15th August 2014 and the optimistic deadline for review reports was 1st November 2014. **Delayed.**
- 5.3 Inter project coaching, Report, August 14, 2015
- An inter-project meeting was realised with MAIN on 31st October 2014, and CONGRAD was also contacted about graduate student surveys. The Minutes are available on the website under NEWS. **Meeting with PLM is delayed.**



Internal Quality Control and Monitoring: Report 2 WP5

- 5.4 Implementation of action plan for quality assurance, Methodology, October 14, 2015
- Besides planned reports from the quality evaluation board, peer reviews, self – evaluation, inter project coaching, monitoring visits, and PMC and IPM activities, an external evaluator has been engaged. It is Mladen Kraljic, University of Maribor, International relations officer, experienced in Tempus projects realisation. **In progress.**

WP6

DISSEMINATION (duration 2th -36th month)

- 6.1 Development and maintenance of project web portal, Other products, October 14, 2015
- The web portal of the project is active and regularly updated since the beginning of the project December 2012. **Ongoing.**



Internal Quality Control and Monitoring: Report 2 WP6

- 6.2 Preparation of project promotional publications, Other products, July 14, 2015
- Project results dissemination needs to be improved. Promotional material distributed at education fairs in different towns and at conferences, interviews with project management, info in journals, are some forms of dissemination. **It needs to be intensified.**
- 6.3 Publishing of papers at regional educational conferences and forums, Events: Conferences and Seminars July 14, 2015
- Out of seven planned papers, one has been published and four are upcoming in December. **Incomplete: Two more papers to be published.**



Internal Quality Control and Monitoring: Report 2 WP6

- 6.4 Organization of dissemination workshops, Events: Conferences and Seminars, January 14, 2015
 - Two workshops organised for project stakeholders so far, in 2012 and 2013, as presented in IR. **The third workshop is planned for 2015.**
- 6.5 Organization of project conference, Events: Conferences and Seminars, August 14, 2015
 - The dissemination conference is planned for 17th-18th September 2015 at UNI.
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- 6.6 Preparation of presentations at educational and job fairs, Events: Conferences and Seminars, March 14, 2015
 - The Project has been promoted seven times at educational or job fairs. Reports on all these events are available on the website under NEWS. **Accomplished.**



Internal Quality Control and Monitoring: Report 2 WP7

WP7

SUSTAINABILITY (duration 4th -35th month)

- 7.1 Preparing of accreditation/reaccreditation of new and modernised degree programs, Other products, June 14, 2013
- All the courses have been accredited. **Accomplished.**
- 7.2 Establishing of network with regional industrial enterprises, Methodology, August 14, 2015
- Two agreements about student practice program for students of master studies have been signed (EMA – Knić & UNIKG, FKL & Temerin i BU). Available on the website under NEWS. **A larger network to be developed.**
- 7.3 Preparation of application for continuous courses financing at National employment services, Other products, December 14, 2014
- The public call of the National employment services expected. **Delayed.**



Internal Quality Control and Monitoring: Report 2 WP7

- 7.4 Preparation of application for training of teachers at colleges of applied sciences financing at Ministry of education, Other products, December 14, 2014
- The public call of the Ministry of Education is expected.

- 7.5 Definition of the marketing plans for active students and labour market, Methodology, October 14, 2015
- The first version is being made. Slightly delayed but accomplished.



Internal Quality Control and Monitoring: Report 2 WP8

WP7

MANAGEMENT (duration 1st -36th month)

- 8.1 Defining work packages management teams, Report, October 14, 2015
- Work packages coordinators and teams have been defined at the kick-off.
Accomplished.
- 8.2 Definition of manual for project management, Methodology, October 31, 2012
- The final version of the Manual for contractual and financial management with Technical and Financial report was adopted on 30th May 2013. Adopted with delay in order to be adjusted to changed circumstances and the project application revision. **Accomplished.**



Internal Quality Control and Monitoring: Report 2 WP8

- 8.3 Organisation of inner project consortium semi-annual meetings, Report, January 14, 2015
- Three Internal Project Management meetings have been realised, in 2012, 2013, and 2014. Reports available. They should be more frequent in the last year.
- 8.4 Organisation of annual project consortium meetings, Report, August 14, 2015
- One Project Management Committee realised at UNS in November 2013, collocated with an Internal Project Management meeting. Reports available. More frequent meetings in 2015 are advisable.
- The next Internal Project Management meeting is scheduled for Thursday.



Internal Quality Control and Monitoring: Report 2

GOOD POINTS	TO BE IMPROVED
Rich gallery of photos	More intensive spending
Regularly updated website	Cooperation with enterprise
No serious hindrance	Some activities delayed
Reports available	Dissemination of results
Good communication	Student involvement
Balanced spending	Engagement of RCC and NES
	Incomplete website - Dropbox



Internal Quality Control and Monitoring: Report 2

WARNING!

- Response to the Intermediary report:
- “We would appreciate to receive more detailed information about the actions taken as follow-up (especially concerning 1. the involvement of students and representatives of colleges of applied sciences, 2. the analysis of labour market needs to select the topics of the continuous education courses and 3. the organization of inter-project coaching activities).
- Please send us this information by e-mail, at latest by the end of August 2014.”

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Internal Quality Control and Monitoring

Summary of progress to date

IS THERE A RISK THAT A PROJECT PARTNER WILL NOT BE ABLE TO SPEND THE ALLOTTED BUDGET?

- The risk that the project partners will not be able to spend the allotted budget can be assessed as very low since the activities are developing mainly according to the plan.
- However, project partners in BA are experiencing obstacles in the financial realisation of the project due to the lack of harmonisation of internal and EU financial regulations. This problem still needs urgent attention.
- The 3rd year is marked by intensive activities which need to be carefully managed for the smooth realisation of the project.



Internal Quality Control and Monitoring Summary of progress to date

- To conclude, the overall progress of project activities can be summarised as following the project workplan. It has not been observed that there is a complete lack of any project activity which could endanger the achievement of the objectives. Even in cases when delivering the results is a bit delayed, the activities have already started, and there is a real commitment to complete them. After two years of the project lifetime, an insight into project deliverables, documents and implementation reports shows a good progress of the project, which anticipates its successful final realisation.



**GOOD LUCK
AND
THANK YOU FOR YOUR
ATTENTION!**