

WBC Virtual Manufacturing Network – Fostering an Integration of the Knowledge Triangle,

144684-TEMPUS-2008-RS-JPHES

Project monitoring and quality control - results

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This project has been funded with support from the European Commission

Basic principles of monitoring

Two principle questions should be asked:

- Have the activities completed to date had the required results?
- Have the results contributed sufficiently to the achievement of the specific objective?

Specific Project Objective/s:

1. To set up and equip regional Collaborative Training Centers (CTC) in four WBC countries
2. To enlarge VMnet network throughout the WBC region
3. To develop, assess and implement new regional model for university-enterprise cooperation
4. To modernize and adjust vocational training programme to address the needs of small business and labour market
5. To provide students with opportunity to gain practical experience in industry
6. To raise awareness in the society about necessity of integration of the knowledge triangle for the region prosperity and to ensure quality dissemination of project results and ideas

Plan of realized QCM visits

<i>Project partner</i>	<i>Location</i>	<i>Date of visit</i>	<i>Contact person</i>
Faculty of Mechanical Engineering	Kragujevac, R. Serbia	29-30 November, 2010	Prof. Dr Vesna Mandic
University of Rijeka, Faculty of Engineering Rijeka	Rijeka, R. Croatia	27 January 2011	Prof. Dr Zoran Jurkovic
University of Montenegro, Faculty of Mechanical Engineering Podgorica	Podgorica, R. Montenegro	13 May 2011	Prof. Dr Mileta Janjić

Monitoring was realized according to control points defined in QCM:

1. Summary of progress to date

2. Description and status of the activities within project workplan

3. Progress against indicators

4. Finance

5. Main problems encountered and recommendations



1. Summary of progress to date

1.1 Summarize progress of activities against the implementation schedule

The project has realized according to proposed workplan and all the planned activities were achieved at the date.

1.2 Summarize progress against specific objective indicators from the logical framework matrix

1.2.1 CTC Kragujevac was established upon decision of the Senate of the University of Kragujevac on 10th June 2010, as organizational unit of the University of Kragujevac.

To set up and equip regional Collaborative Training Centers (CTC) in four WBC countries

1. Summary of progress to date

1.2 Summarize progress against specific objective indicators from the logical framework matrix

CTC-Rijeka is established on 10th July 2009 by the act of establishing CTC of Faculty of Engineering, University of Rijeka.

CTC-Podgorica is established on 28th of May 2009 by the act of establishing CTC of Faculty of Engineering, Podgorica, University of Montenegro.

Cooperative Training Center (CTC) Banja Luka was established on 14th July 2009

1. Summary of progress to date

1.2 Summarize progress against specific objective indicators from the logical framework matrix

CTC staff are retrained and ready to support implementation of training, IFP and PPP programme

1.2.2 CTC staff are retrained and ready to support implementation of training. The specialized trainings were organized for WBC partners in Padova , Italy(September 2010), Lyngby, Denmark (September 2010), Ljubljana, Slovenia (June 2010) and Kragujevac, Serbia (May 2010).The representatives of CTC attended to all trainings (attached on the participant list).

1. Summary of progress to date

1.2 Summarize progress against specific objective indicators from the logical framework matrix

To enlarge VMnet network throughout the WBC region

1.2.3 The members of VMnet network has increased from 500 to 1138 members
CTC Kragujevac has increase the membership of VMnet for 370 members.
CTC Rijeka has increased the membership of VMnet to 50 members each year.
CTC Podgorica has increased the membership of VMnet to 50 members each year.

1. Summary of progress to date

1.2 Summarize progress against specific objective indicators from the logical framework matrix

Qualitative assessment of new regional cooperation model through interviews (at least 200) of target groups

1.2.4 In order to qualitative assessment of new regional cooperation model, CTC has collected more than 400 interviews.

1. Summary of progress to date

1.2 Summarize progress against specific objective indicators from the logical framework matrix

Quality and number of vocational trainings have increased and more targeted to SME needs

1.2.5 CTC Kragujevac have prepared 6 specialized vocational trainings for all interested industrial enterprises:

1. CAD/CAM modelling
2. Tool design
3. Modelling and optimization of production processes using the FE / FV simulation
4. Project management
5. CAM modeling and generating NC code for 3 axis CNC milling machines
6. Industrial metrology

1. Summary of progress to date

1.2 Summarize progress against specific objective indicators from the logical framework matrix

CTC Rijeka have prepared 6 specialized vocational trainings for all interested industrial enterprises:

1. Simulation of machining processes and rapid prototyping techniques (SolidWorks, SolidCam, RP) - introductory course
2. Product design and development with CATIA
3. Process Quality Improvement Methods
4. Fundamentals of project management
5. Application of MS Project for planning and monitoring projects
6. Qualification program for new product/production system development

1. Summary of progress to date

1.2 Summarize progress against specific objective indicators from the logical framework matrix

CTC Podgorica have prepared 2 specialized vocational trainings for all interested industrial enterprises:

1. CAD-ProEngineer
2. Office Informatics

1. Summary of progress to date

1.3 Is there a risk that the project will fail to meet its key indicators?

There is no risk that the project will fail to meet the key indicators. All indicators of progress are successfully achieved according to the workplan.

1.4 Is there a risk that the Project partners will not be able to spend the all the money according to the Partner budget table?

Until now, there is not any risk to spend the money, according to the partner budget table, by project partners.

2. Description and status of the activities within project workplan

The project is on a good track and that all planned activities were achieved at the date.

There is no risk that all planned activities will be finished on time according to the workplan. All activities are implemented on schedule and preparations for the upcoming activities are carried out without problems.

3. Progress against indicators

<i>Outputs</i>	<i>Indicator</i>	<i>Achieved to date</i>
Output / Outcome 1	1.Four WBC CTC have human and technical potential and capabilities to do effective training and knowledge transfer programme in the area of virtual product and process development	<p>CTC Podgorica, May 2009 (10 PCs, projector and VM software –Pro Engineer)</p> <p>CTC Rijeka, July 2009 (10 PCs, projector and VM software – Simufact and 3D QuickPress)</p> <p>CTC Kragujevac, June 2010 1 server, 3 PCs, 2 laptops and 6 monitors) 1 Projector ,Intranet network system in CTC 1 Multisensor CMM laboratory machine for quality control - WERTH Video-check IP250 ,3D printer for Rapid Prototyping - OBJET Alaris 30 and VM softwares - Stampack and Vizard</p>

3. Progress against indicators

<i>Outputs</i>	<i>Indicator</i>	<i>Achieved to date</i>
Output / Outcome 2	1. VMnet brings at least 10 new experts from multidisciplinary fields and 300 new members per year from WBC region (professors, researchers, managers, engineers, entrepreneurs, SMEs, national and regional authorities, ministry staff and other stakeholders...)	Network gathers 18 experts from areas of production technologies, materials, information technologies, software development, etc. The members of VMnet network has increased from 500 to 1138 members .

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3. Progress against indicators

<i>Outputs</i>	<i>Indicator</i>	<i>Achieved to date</i>
Output / Outcome 3	1. New regional model adopted, validated by at least three case studies in each of WBC, and carried out, leading to measurable improvements in university enterprise cooperation	June 2010

3. Progress against indicators

<i>Outputs</i>	<i>Indicator</i>	<i>Achieved to date</i>
Output / Outcome 4	1. Data for quality TSNA analysis collected through at least 400 interviews of SMEs staff and representatives throughout WBC, and TSNA	<p>CTC Kragujevac- 355 interviews , December 2009</p> <p>CTCRijeka – 158 interviews, January 2010</p> <p>CTCPodgorica – 183 interviews, January 2010</p> <p>All analysis are presented in reports of each CTC and published on the project web site.</p>
	2. At least 15 trainers and service providers selected and retrained	Seventeen trainees were selected and retrained in various areas.

3. Progress against indicators

<i>Outputs</i>	<i>Indicator</i>	<i>Achieved to date</i>
Output / Outcome 5	1. At least 10 new or modernized training courses and instruction material developed and redesigned simultaneously for e-learning on Moodle platform	16 training courses had developed
	2. At least 30 Industrial fellowship programme realized in cooperation with industry	?
	3. At least 100 students of engineering passed PPP programme in industry and improve their practical skills	Until now, 195 students finished PPP

3. Progress against indicators

<i>Outputs</i>	<i>Indicator</i>	<i>Achieved to date</i>
Output / Outcome 6	1. Over then 15 dissemination and awareness events performed during the whole project, with good impact on public at large	Three workshops held in Serbia, Croatia and Montenegro; Three motivational seminars held in Serbia, Croatia and Bosnia and Herzegovina; Twelve info days held in Serbia, Croatia, Montenegro and Bosnia and Herzegovina

3. Progress against indicators

<i>Outputs</i>	<i>Indicator</i>	<i>Achieved to date</i>
Output / Outcome 7	1. Sustainability	Continuous
Output / Outcome 8	1. Quality control and monitoring	Internal monitoring External monitoring Inter- Tempus coaching
Output / Outcome 9	1. Management of the project	Fourth Steering Committee meeting ; Three Management meetings in EU and 13 Management meetings in Serbia

4. Finance

4.1 Are the Project partners obtaining all necessary supporting documentation and storing this properly?

All supporting documentation: programs, reports, promotional materials, questionnaire etc, are available on WBCVMnet web site for all project partners. Also, the project documentation is storing properly from the project coordinators, classified in the appropriate folders.

4.2 Are the Project partners experiencing any problems in terms of cash flow?

Project partners have not any problems in terms of cash flow including payment from the UKG.

5. Main problems encountered and recommendations

CTC Kragujevac

Companies are aware of the importance of modern technologies to increase their competence and competitiveness in the market, but they still have not sufficient financial strength to meet challenges. This is the most common reason why they do not adopt the IFP.

CTC Rijeka

Up to date, all the problems happened during realization of the project have been solved with needed much more efforts and time. One problem still always exists is afraid about motivation community for issues of this project especially in this economic crisis.

CTC Podgorica

The main problems are reducing the interest of students in engineering faculties and significant decline in the manufacturing sector in Montenegro.

Steering Committee meeting Belgrade, October 21st 2011.



Kragujevac



Rijeka



Podgorica

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Thank you for your attention