



## **Steering Committee meeting**

**11<sup>th</sup> May 2011, Tivat**

# **Workplan for the next six-monthly project implementation period**

**Prof. Dr. Vesna Mandic, Project Coordinator**



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### 1.1 Found and equip four CTC and define Action plan

Outcome leader  
**UKG**

April	May	Jun	July	August	September

- ❖ Site managers of CTC centres Kragujevac, Rijeka, Banja Luka and Podgorica will prepare and deliver to Project Coordinator final version of Elaborations of CTC centres, **until 1<sup>st</sup> July 2011**, with following elements: mission, vision, centres' objectives, main responsibility and activities, structure of centre staff, list of trainings, services and other important elements.
- ❖ Each Site manager of CTCs will elaborate Action plan for CTC, based on SWOT analysis, for the **2010-2012** period. Deadline for delivery is **1<sup>st</sup> July 2011**.
- ❖ Web sites of CTC centres should be launched and updated with news, list of trainings, services, reference list etc.
- ❖ Case studies, demonstration examples, impressions of trainees, important meetings and events may facilitate sustainability of CTCs
- ❖ Involvement in national, regional and EU initiatives with individual CTC or with network of Wbc CTCs, supported by EU partners



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### 1.3 Market and marketing activities

April	May	Jun	July	August	September
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**Outcome leader  
UKG**

- ❖ Market research will include analysis of potential users' attitudes, i.e. significant factors that influence the decision of enterprises and SMEs, unemployed graduates, non-university teachers, to take part in CTC trainings and use its services.
- ❖ Depending on the type of beneficiaries, various marketing activities should be undertaken in accordance to Programme for dissemination and public awareness
- ❖ Three brockage events will also serve as marketing and networking tool
- ❖ In addition, following marketing tools should be used
  - Dissemination of CTC brochures, PPP and IFP flyers (printed and electronic)
  - TV aperiances, articles in newspapers, journals,
  - Participation at fairs, conferencies...
  - CTC web site contents and news
  - Promotional E-mails about CTC trainings and services (VMnet, E-book...)
  - Individual meetings, presentations at companies, chambers of commerce, regional development agencies
  - Cooperation with similar projects and their teams – synergy effects...



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### 2.2 Bring new VMnet members and experts

April	May	Jun	July	August	September
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**Outcome leader  
UKG**

❖ UKG, UBL, UR and UP have to provide at least planned number of new VMnet members from their countries, listed in the table below, until the end of 2011 year.

Number of new VMnet members in 2009-2010		Planned number, WBC-Vmnet project	Balance
Provided by partner	Number of VMnet members		
UKG, Serbia	340	450	110
UP, Montenegro	96	150	54
UR, Croatia	133	150	17
UBL, Bosnia & Herzegovina	85	150	65
<b>TOTAL in 2009/2011</b>	<b>654</b>	<b>900</b>	<b>246</b>
<b>TOTAL number of VMnet members</b>	<b>1090</b>		



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### 2.3 Update existing systematization knowledge e-base with new topics

April	May	Jun	July	August	September
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**Outcome leader  
UKG**

- ❖ **At least 4 new lecturers/experts** will be selected during this reporting period.
- ❖ Selected experts will systematize knowledge in the areas of multidisciplinary approach in product and process development, bioengineering, marketing, industrial design, and other identified fields, providing VM applications in medicine, construction, agroindustry, pharmacy etc.
- ❖ **At least 4 new topics** in systematization knowledge base will be provided until the end of reporting period.
- ❖ UKG and UP will send names of experts and new topics to Project Coordinator until **1st June 2011**.
- ❖ UKG will post these new material into existing systematization of knowledge, available on web site.

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**2**

## 2.3 Update existing systematization knowledge e-base with new topics

April	May	Jun	July	August	September
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**Outcome leader UKG**

1. Industrijski dizajn
2. Proizvodne tehnologije  
Tehnologije zapreminskog deformisanja  
Osnove dubokog izvlacenja  
Tehnologija injekcionog presovanja polimera  
Obrada lima i alati
3. Razvoj novih materijala  
Razvoj materijala i principi dobijanja
4. Obradivost i metalurgija  
Obradivost limova  
Razvoj i primena Al-Mg legura visoke čvrstoće
5. CAD/CAM/CAE tehnologije  
CAD/CAM  
Parametarsko modeliranje  
Simulacija dinamičkih procesa uCAD software-u  
Katalozi CAD modela  
Istorija CAD-a  
CATIA V5 – Uvod  
Izrada strojnog dijela, od projektiranja do izrade proizvoda (UR)  
Projektiranje procesa izrade vratila – primjer (UR)  
Mašine, alati I metode mašineranja (UBL)
6. VM tehnologije (FEM/FVM simulacije)  
Virtuelna proizvodnja odlivaka primenom CAE tehnika  
Tehnologije virtuelnog inženjeringa  
Numericke simulacije procesa. Ulazni podatci za FE simulaciju  
Integracija tehnologija virtuelnog inženjeringa
7. RP/RT/RE tehnologije  
Brza izrada prototipova (Rapidprototyping)  
Brza izrada alata (Rapid Tooling)  
Reverzni inženjering(RE)  
Korisni linkovi
8. VR tehnologije  
Virtuelna realnost, vizuelizacija i tehnike simulacije  
Uredjaji za virtuelnu realnost
9. Strateški management  
Proizvodna strategija (UR)
10. Kvalitet  
Unapređivanje kvaliteta (UR)  
Merenje buke i vibracija (UBL)

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### 3.2 Develop, assess and adopt the new regional model of cooperation

April	May	Jun	July	August	September
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Outcome leader  
 UL

❖ All WBC partners will participate in implementation of the new WBC Regional model of University-enterprise cooperation, that is following activities:

- Establishment **Science and Technology parks** in regional university centers
- Organization of **WBC regional industrial clusters**
- Forming **University-enterprises consortia** for joint projects;
- Establishment of **Collaborative-training and/or long-life learning centres**;
- Setting up of **Open Innovation Networks with SME**;
- **Practical placements** for students in industry;
- **Industrial fellowship programme** for graduates and/or employees from enterprises

❖ For this activity, regional stakeholders should be involved: Universities in the WBC region, Academic and Research networks for SEE and WBC, Ministries of Education, Ministries of Science, Ministries of Economy, Chambers of Commerce, Agencies for SME development, National Employment Agencies and all the other political and social partners.



## 3 3.3 Set up joint structure of SMEs

April	May	Jun	July	August	September
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**Outcome leader**  
**UL**

- ❖ Support the establishment of joint structures of SMEs, as groups of small enterprises with similar sector, social and geographic profiles, in the form of **Associations or Clusters** (national and regional), with the support of national and regional authorities, university research centres, and funded from the national investment plan.
- ❖ CTC centres will have central role in their networking and grouping, offering them wide set of trainings, R&D and technological services.
- ❖ Also, CTC centres should join a existing regional clusters of SMEs, in order to get opportunity to offer their services, trainings and facilitate the commercialization of R&D results.





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### 3.4 Case studies – benchmarking best practice

April	May	Jun	July	August	September
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Outcome leader  
 UL

- ❖ In order to benchmark developed CTC services with well-known best practice in integrated product and process development, at least **4 case studies** will be performed
- ❖ Four SMEs participating in Consortium (SCGM, ELCON, METALIK, TRI BEST) will provide examples of case studies, which will demonstrate all aspects of VM technology applications in product and process development.
- ❖ Topics and aims of case studies will be proposed by SMEs and CTCs until **June 2011**.
- ❖ CTC managers will coordinate implementation of case studies
- ❖ UKG will provide **TEMPLATE** for presentation of **CASE STUDY**
- ❖ Available equipment of CTCs, new equipment and software procured within the project, expertise of EU partners, will be used in this activity realization
- ❖ **Report on Case studies** will be published, as printed and electronic version, for dissemination purposes.



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### 5.1 Develop and delivery vocational trainings

Outcome leader  
 UPD

April	May	Jun	July	August	September

- ❖ In order to collect 20 participants, for each training, CTC managers should communicate with prospective enterprises, National Employment Agencies, SME partners, Regional development agencies, use TSNA results...
- ❖ Tentative schedule for delivery of trainings in this period: .

#### CTC Kragujevac (63 trainees certified so far):

1. Modelling and optimization of production processes using FE/FV simulation (40hours, 9 participants), **19th April – 6th June 2011**
2. Industrial metrology (40hours, 7 participants), **17th May – 15th June 2011**
3. 4. Project management (20 hours, 20 participants), **September 2011**



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### 5.1 Develop and delivery vocational trainings

April	May	Jun	July	August	September

**Outcome leader  
UPD**

#### CTC Rijeka (20 trainees certified so far):

1. Simulation of machining processes and rapid prototyping techniques (40 hours, 20 participants) (SolidWorks, SolidCam, RP) - introductory course,
2. Product design and development with CATIA, [May – June 2011](#)
3. Application of MS Project for planning and monitoring projects (20 hours, 10 participants), [May – June 2011](#)
4. Qualification program for new product/production system development

#### CTC Banja Luka (10 trainees certified so far):

1. Advanced CAD modelling using Solid Works (40 hours, 10 participants), [May – june 2011](#)
2. NC programming and the basics of CAM modelling (40 hours, 20 participnats), [May - June 2011](#)

#### CTC Podgorica (10 trainees certified so far):

1. CAD – ProEngineer (40 hours, 10 participants), [May – June 2011](#)
2. Office informatics (40 hours, 20 participants), [May – June 2011](#)



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### 5.2 Develop and redesign instructional material for e-learning

Outcome leader  
**UPD**

April	May	Jun	July	August	September

- ❖ Teaching material for vocational trainings will be redesigned and prepared for setting up at MOODLE platform.
- ❖ All topics of trainings will be prepared, with distributed content for every page in MOODLE editor, with appropriate navigation.
- ❖ All illustrations, figures, simulations and video material will be prepared separately, and optimized for adequate distribution.
- ❖ Depository with teaching e-material will be accessible only for registered users with previously permit by CTCs.
- ❖ Setting up, maintenance and regular updating of e-material are activities, which will be constantly performed during the whole period.
- ❖ University of Kragujevac will post e-Leraning materials prepared by all partners (at least 10 trainings) and define **TEMPLATE** and **INSTRUCTIONS** for preparing it
- ❖ e-Leraning material will be available only for registered users, upon permission of CTCs



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### 5.3 Develop and conduct Industrial Fellowship Programme (IFP)

April	May	Jun	July	August	September
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**Outcome leader  
UPD**

- ❖ At least **30 industrial fellows** will spend **from 3 until 12 months** at academic/research institutions in Serbia, Croatia, Bosnia&Herzegovina and Montenegro (time schedule should be flexible)
- ❖ CTCs will coordinate IFP, whereat **CTC Kragujevac will realize 13 IFP, CTC Rijeka 7 IFP, CTC Banja Luka 5 IFP and CTC Montenegro 5 IFP.**
- ❖ Implementation procedure, described in IFP programme should be used, and appropriate annexes
- ❖ **CTC managers will be IFP coordinators; He/she will communicate with sponsor enterprises and R&D host institutions**
- ❖ **National Employment agencies and Centres for Career Development can support IFP implementation, within “First chance” and other fellowship programmes**
- ❖ Industrial fellows will prepare IFP reports for public dissemination at CTC web sites
- ❖ Databases will be available at CTC web sites, also (page DEMAND/SUPPLY)



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## 5.3 Develop and conduct Industrial Fellowship Programme (IFP)

April	May	Jun	July	August	September
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**Outcome leader  
UPD**

IFP coordinator will collect data for database, using this form for R&D host institution

General information on the host organization for Industrial fellowship programme				
Host R&D organization name:				
Address:				
URL:				
Responsible person's name for IFP:				
Title:		e-mail:		
Phone:		Fax:		
List of R&D topics and resources				
No.	IFP – research topic (short description)	Resources made available for fellows	Supervisor name	IFP duration
1.				
2.				
3.				
Name of authorized person		Signature	Date	





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### 5.3 Develop and conduct Industrial Fellowship Programme (IFP)

April	May	Jun	July	August	September
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**Outcome leader  
UPD**

IFP coordinator will collect data for database, using this form for sponsor enterprise

General information on the company interested in Industrial fellowship programme			
Company name:			
Address:			
Web site:			
Name of the contact person:			
Title:		Email:	
Phone:		Fax:	
Status of the company:		Total number of employees:	
Nature of the business:			
List of trainings & research areas			
No.	Interested in training in the following fields	Number of employees	Sponsoring value (EUR)
1.			
2.			
3.			
Director/CEO		Signature	Date





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## 5.4 Develop and conduct Practical Placement Programme (PPP)

April	May	Jun	July	August	September
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**Outcome leader  
UPD**

- ❖ At least 100 students will be involved in **Practical Placement Programme (PPP)** until the end of the project
- ❖ Distribution and type of PPPs, number of students, per partners and countries

WBC Partner	PPP at EU		PPP at WBC		PPP at PCs
	Students	Location	Students	Location	
UKG	1	Italy	1	Croatia	25
	1	Denmark	1	Croatia	
	1	Slovenia	1	BIH	
	1	Slovenia	1	Montenegro	
UR	1	Italy	1	Serbia	25
	1	Denmark	1	Serbia	
UBL	1	Italy	1	Serbia	15
	1	Slovenia	1	Croatia	
UP	1	Denmark	1	Croatia	15
	1	Slovenia	1	Serbia	
<b>Total</b>	<b>10</b>		<b>10</b>		<b>80</b>

UL – 2

C3M – 2

IPU – 3

UPD - 3

TOPICS !!???

and

DATES !!???





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### 5.4 Develop and conduct Practical Placement Programme (PPP)

April	May	Jun	July	August	September	

**Outcome leader  
UPD**

- ❖ Slovenia – UL – 2 students (UBL, UP) – topics and appropriate dates
- ❖ Slovenia – C3M – 2 students (UKG) – topics and appropriate dates
- ❖ Italy – UPD – 3 students (UKG, UR, UBL) - topics and appropriate dates
- ❖ Denmark – IPU - 3 students (UKG, UR, UP) - topics and appropriate dates



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### 5.4 Develop and conduct Practical Placement Programme (PPP)

April	May	Jun	July	August	September
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**Outcome leader  
UPD**

- ❖ EU and WBC partners will provide topics for PPPs at their institutions; they will assure necessary conditions for PPP implementation in consultation with WBC partner who will send student
- ❖ Financial rules should be respected in each WBC country, since PPP will be financed from budget of the partner who sends student; CTC managers will define procedure and support students
- ❖ Selected Final reports of student PPP will be published at the project web site and CTCs web sites
- ❖ Monitoring and evaluation of PPP will be applied as described at PPP programme
- ❖ PPP coordinators will be named by Universities and/or CTC managers
- ❖ Databases of host enterprises will be defined and updated in time
- ❖ Databases will be available at web sites of CTCs, Universities and faculties (involved in Consortia), Centres for carrier development...



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### 6.6 Organize three brockeraage events

April	May	Jun	July	August	September	

Outcome leader  
**UKG**

- ❖ Realization of **3 brockeraage events**, with following schedule:
  - **October 2011**, Kragujevac, Serbia, 100 participants
  - **November 2011**, Rijeka, Croatia, 100 participnats
  - **December 2011**, Banja Luka, 100 participnats
- ❖ Brokerage events will enable the information exchange, providing better links for setting up sustainable partnerships for future cooperation programme.
- ❖ Brokerage events will be the ideal for:
  - Universities, research institutes, spin-offs, investors offering and/or using innovative technologies
  - Enterprises that are looking for expertise and know-how
- ❖ EU partners (UL, C3M, IPU, DIMEG) will participate as experts/lecturers
- ❖ A set of appearances in local and regional media will be organised.



### 7.1 Institutional sustainability

### 7.2 Financial sustainability



April	May	Jun	July	August	September

- ❖ UKG, UP, UBL and UR, and their CTC managers will participate actively in this activities, during the project's life time.
- ❖ IPU and C3M will transfer their long term experience in cooperation with industry, and advice CTC managers.
- ❖ IPU and C3M will provide some case studies and best practices in EU related Sustainability of CTC centres, **until 1st July 2011.**
- ❖ Long term perspectives and main sustainability factors should be comply with aspects elaborated in Application form, pp. 79-85.
- ❖ Finally, Sustainability aspects and plans will be described in detail within Action Plan for CTC (Outcome 1), **until 1<sup>st</sup> July 2011.**
- ❖ IPU and C3M will prepare this part of Action plan, together with Site Managers.



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### 8.2 Internal monitoring and interviews of target groups

Outcome leader  
**UKG**

April	May	Jun	July	August	September
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- ❖ Quality control manual (QCM), developed by QAPT team and Project Coordinator, defines all the necessary procedures for:
  - 1) Internal monitoring,
  - 2) External monitoring,
  - 3) Technical and financial intra-project reporting.
- ❖ Internal (site managers) and external experts will monitor project implementation
- ❖ End users, beneficiaries will participate in monitoring process, through questionnaires and interviews
- ❖ All partners prepare six-monthly PP reports for evaluation of project quality
- ❖ **Postponed deadline for the fourth Partner report is 1<sup>st</sup> June 2011**
- ❖ Project Coordinator, QAPT members and external expert will perform **Monitoring visits** to PC and EU partners, in the period from **May 2011 until September 2011**



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### 9.1 Overall project management and administration

April	May	Jun	July	August	September

Outcome leader  
**UKG**

- ❖ Partners will submit their **Technical, Financial report, and Cash flow tables**, accompanied by copies of supporting documents to UKG until **1st June 2011**.
- ❖ Project Coordinator, PST team and QAPT team will analyse received partners' reports until **15th July 2011**, and inform partners about acceptance
- ❖ In case of uncompleted reports partners will be required to complete it, until **1st August 2011**.
- ❖ All partners will put efforts **to close the budget** (TEMPUS grant, Co-financing, Pre-financing 10% until final payment by EACEA-UKG) in accordance with Partnership Agreement
- ❖ To prepare new Travel Plan in order to have planned number and type of mobilities and to spend travel budget



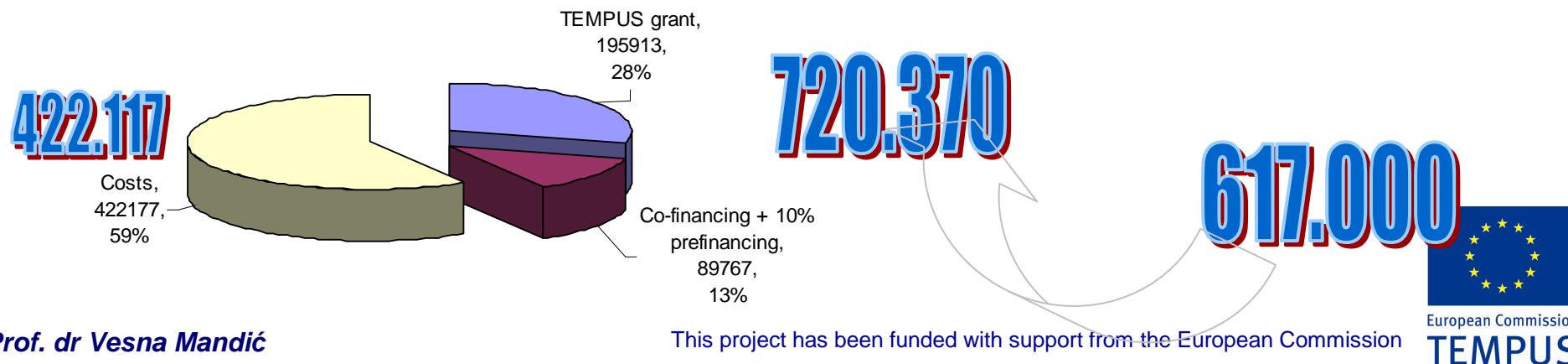
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## 9.1 Overall project management and administration

Outcome leader  
**UKG**

April	May	Jun	July	August	September
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Ref. No	Partners	Country code	Budget (€)	Actual state (until 31st March 2011)				Stay costs kick-off by UKG, 434 €	TEMPUS balance+co financing (D-N-S-Q)	Accepted costs in percent of budget	Transfer of grant in percent of budget
				Total transfer I+II+III	Co-financing I+II+III	Total accepted costs	Balance (transfer-accepted)				
2	University of Podgorica	ME	45,248.00	34134.29	1931.73	21968.16	14097.86	434	8747.98	48.55%	75.44%
3	University of Banja Luka	BA	44,354.00	33419.8	953	19687.28	14685.52	434	9547.2	44.39%	75.35%
10	University of Rijeka	HR	45,148.00	34581.4	2070.2	25612.29	11039.31	434	8062.4	56.73%	76.60%
4	Regional Econ.Dev.Agency SiP	RS	15,568.00	11105.23		9213.85	1891.38		4462.77	59.18%	71.33%
6	University of Ljubljana	SI	20,427.00	13412.6		5201.5	8211.1	434	6580.4	25.46%	65.66%
7	University of Padova	ME	44,458.00	30141.37	760.2	10580.31	20321.26		13556.43	23.80%	67.80%
8	Institute for Production Engineering	DK	42,866.00	30362.1	2278.38	27025.09	5615.39		10225.52	63.05%	70.83%
9	C3M d.o.o.	SI	38,124.00	19763.72	1990	7890.09	13863.63	434	15936.28	20.70%	51.84%
5	SCGM d.o.o.	RS	5,587.00	2318	485	1748	1055		2784	31.29%	41.49%
11	ELCON Geratebau d.o.o	HR	4,856.00	2092.75		1056.8	1035.95		2763.25	21.76%	43.10%
12	Metalik d.o.o.	ME	4,779.00	2160.5	325	2608	-122.5	434	1859.5	54.57%	45.21%
13	Tri Best d.o.o.	BA	4,450.00	2039		1219.5	819.5	434	1977	27.40%	45.82%
<b>TOTAL</b>			<b>315,865.00</b>	<b>215530.76</b>	<b>10793.51</b>	<b>133810.9</b>	<b>92513.4</b>	<b>3038</b>	<b>86502.73</b>		





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### 9.1 Overall project management and administration

Outcome leader  
**UKG**

April	May	Jun	July	August	September
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- ❖ Application for extension of period of the project implementation (????? – at least three months before 15th January 2012) – **DECISION of Steering Committee**
- ❖ Reasons:
  - Practical Placement Programme implementation in EU institutions (10 students)
  - Practical Placement Programme implementation in PC institutions (10 students)
  - Industrial Fellowship Programme (30 fellows)
  - Unspent travel costs – to intensify mobility activities
  - To satisfy sustainability requirements (institutional and financial) in cooperation with stakeholders and enterprises
  - To provide co-financing and pre-payment
  - To close project budget
  - **OTHER...?????**





❖ **The fifth Steering Committee meeting** will take place in **??????????**, in **October 2011**, in organization of University of **??????????**.

# Thank you for your attention