European Commission

Tempus IV

FIRST CALL FOR PROPOSALS N° EAC/04/2008

Application Form

Joint Project 2008

SEE Doctoral Studies in Mathematical Sciences

Registration number: Registration number (leave empty)

Reception Number: Reception number (ETF–JP–nnnnn–2008) leave empty

SUBMISSION PROCEDURE

Please read carefully the following explanations and instructions (pages 1-5) concerning the submission of your proposal.

- Applicants are requested to access and download the application form from the internet: http://ec.europa.eu/tempus.

- Only applications using the correct form will be accepted and processed.

- Before completing the form, please read the Tempus IV Call for Proposals EAC/04/2008, which can be obtained from the Tempus website at the following address: http://ec.europa.eu/tempus.

- Applicants have the choice of submitting the application in English, French or German.

- The application must be word-processed, using a computer. Hand written applications will not be accepted.

- **Applications must be sent by e-mail,** and this version will be used for assessment purposes; changes made after the original submission will not be accepted or considered.

- All signed **original** supporting and administrative **documents** must be sent **by registered mail** in one package (documents sent separately will not be accepted) at a later deadline. Applications sent by post or fax and supporting and administrative documents sent by e-mail (as PDF documents) or fax will not be accepted.

- The deadline for submission of the application form by e-mail is **28 April 2008**, 16:00 Central European Time. Applicants are strongly advised not to leave the submission of their applications until the last possible moment. Applicants should consider that problems arising can only be dealt with during office hours and that technical support will be guaranteed until 16:00 (Central European time) on 28 April 2008. Applicants are therefore strongly advised to submit applications in a timely manner.

- Sections of the application that are not available electronically, for example CVs of external experts or profit and loss accounts, do not need to be sent by e-mail (please see Section VII: Check List at the end of this application form).

- The e-mail-based applications must be sent to:

Tempus-JP-2008@etf.europa.eu

- Following the submission of the application by e-mail, applicants will receive an electronic acknowledgement of receipt by the **5th of** May 2008 at the latest, indicating the reception number assigned to the application. This acknowledgement will be sent to the e-mail address from which the application has been submitted.

- The registration number must be indicated in the cover letter accompanying the supporting and administrative documents to be sent by post.

- Applicants should not staple the original supporting and administrative documents and should ensure that the reference numbers indicated on the endorsement letters are in accordance with the

ones used in section II, List of Partners.

- The deadline for submission of the original supporting and administrative documents, by post, is the **15th of May 2008, as dated per post mark**. Only those supporting and administrative documents accompanied by a cover letter referring to a valid registration number will be accepted. Please note, that applicants will not receive an acknowledgement of receipt for the submission of their original supporting documents. However, applicants will be contacted in case these documents should not have reached the European Commission by the 30th of May 2008.

- The signed original supporting and administrative documents and one copy thereof must be sent in the same envelope, using registered posting to:

European Commission
DG Education and Culture
Unit A.5
B-1049 Brussels
Belgium

- The original supporting and administrative documents and one copy sent by post must be complete in accordance with Section VII: Check List of this application form.

- Applicants should be aware that only postal or courier registration slips indicating the project registration number will be accepted as proof of dispatch.

- Applicants should be aware that upon completion of the selection procedure **all** communication concerning this application (such as information on the decision, the provision of feedback to unsuccessful applicants, etc.) will **solely** take place with the person indicated in this application as "grant applicant" (reference number 1 in section II, List of Partners).

- The information provided in the application is subject to EU legislation on protection of personal data and confidentiality of information. For further information, please check: http://ec.europa.eu/justice_home/fsj/privacy/

NB: Applicants should send an electronic copy of their proposal to the Tempus National Contact Point (for EU-based applicants) and the National Tempus Office (for applicants based in the partner countries). Electronic addresses are available from the Tempus website: http://ec.europa.eu/tempus

THE APPLICATION FORM

This application form contains features that allow the automatic transfer of information into the database used for the selection and narrows down the possibility of applicants' possible mistakes.
Applicants will find below some explanations on the structure of the form as well as some instructions on how to fill it in. Should you encounter any problems, do not hesitate to contact the Tempus Department of the European Training Foundation for prompt support to technical problems, at the e-mail address: **Tempus_IT_Team@etf.europa.eu**
For content-related queries please contact: **EAC-TEMPUS-CALL-2008@ec.europa.eu**

How to complete the form:
The structure of the following sections of this form is protected.
- Section I: Declaration on Exclusion and Selection Criteria
  Agreement on Publication
  Endorsement Letters
  Technical Capacity
  Declaration for Qualifying as Public Body (if applicable)
  List of National Member Entities (if applicable)
  Profit and Loss Accounts (if applicable)
- Section II: Basic Data of the Project
  List of Partners
- Section III: Project Particulars
- Section IV: Summary of the Project
- Section V: Funding requirements
- Section VI: Administrative Documents: Legal entities, Financial identification

Applicants are allowed to fill in only the specific fields, which are **highlighted in grey** while the rest of the form is not editable. There are **free-text fields**, where any text can be inputted (ex: <<Example text field>>), and **selection fields**, where you will have to select from a list of predefined values (ex. Choice 1). As a general rule, in order to type into a field or to select a tick box, click on it with your mouse. You can also easily move from one field to the next using the TAB or arrow keys.

In case the requested information is to be provided in the form of a list, you can start a new line after each individual entry by clicking on the "enter" key, within the same field, as in a normal "word" document.

Please note that some fields are automatically filled-in based on your input in other fields. For instance, you will only have to input the project title once on the cover page, and it will be displayed in all other sections of the application requesting this information. In general, you should always fill in the first field, requesting the information, which will then be copied into subsequent sections. We therefore recommend that you fill in the form starting from the cover page.
In order to ease the navigation in the application form, we recommend using the Document Map feature (from MS Word menu, "View" ➔ "Document Map")

Beside these general hints please note the following:

- **Section II, List of partners:**

The form includes a limited number of "boxes" for participating partners and individual experts. Should you plan to involve more partners and/or individual experts than the number provided in this form, please insert their data in the field called: *"Contact details for additional partners"* and *"Contact details for additional individual experts"* (providing the same information as is requested in the protected "boxes" for partners and experts).

- **Section V, Funding requirements:**

The Summary table n°8 (*"Summary of project funding requirements")* will be automatically filled in with the total costs of each heading in the relevant tables n° 1-6.
Furthermore, within table n°8, the percentage of co-financing of the project will be verified automatically,

once the amount to be co-financed is inserted in the proper field in table n°7.

The following sections need to be completed.

The declarations requested in the following pages [Section I; the "Declaration on Exclusion and Selection Criteria", the "Agreement on Publication", the endorsement letters to be provided and the "Declaration for Qualifying as a Public Body" (where applicable)] should be signed by the grant applicant **and** by the person at the grant applicant's legal entity who is legally authorised to engage the legal entity itself: in case of higher education institutions that means the **rector, vice-rector, president or vice-president**, in case of other legal entities the **minister, secretary-general, chairman, executive director or their deputies**. *Please note that **applicants must be legal entities based in the European Union or in Tempus partner countries.***

SECTION I: DECLARATION ON EXCLUSION AND SELECTION CRITERIA

To be completed by the Grant Applicant

1. We have stable and sufficient resources of funding to maintain our activities throughout the period during which the project is carried out;
2. We are not bankrupt or being wound up, are not having our affairs administered by the courts, have not entered into an arrangement with creditors, have not suspended business activities, are not subject of proceedings concerning those matters, and are not in any analogous situation arising from a similar procedure provided for under national legislation or regulations;
3. We have the professional competencies and qualifications required to complete the proposed project;
4. We have not been guilty of grave professional misconduct proven by any means which the contracting authority can justify;
5. We have not been convicted of an offence concerning our professional conduct by a judgement which has the force of res judicata;
6. We have not been subject of a judgement which has the force of res judicata for fraud, corruption, involvement in a criminal organisation or any other illegal activity detrimental to the Communities' financial interests;
7. Following an award procedure financed by the Community budget, we have not been declared to be in serious breach of contract for failure to comply with the contractual obligations;
8. We have fulfilled obligations relating to the payment of social security contributions or the payment of taxes in accordance with the legal provisions of the country in which we are established or with those of the country of the contracting authority or those of the country where the contract is to be performed.

We, the undersigned, certify that the information given above and in the following project proposal is correct to the best of our knowledge, and that the proposal has been endorsed by the relevant authorities representing the partners.

We, the undersigned, have taken note that if found guilty of false declarations,we will receive financial penalties in proportion to the value of the grants in question.

<table>
<tr><td>Title of the project:</td><td colspan="3">SEE Doctoral Studies in Mathematical Sciences</td></tr>
<tr><td colspan="2">Ref. Nr. 0 - Legal Representative of the applying legal entity:

First name and surname: FARUK CAKLOVICA

Place: SARAJEVO Date: 24/04/2008 (dd/mm/yyyy)

Position: RECTOR

Signature:</td><td colspan="2" rowspan="2">Official stamp or seal of the applying legal entity:</td></tr>
<tr><td colspan="2">Ref. Nr. 1 - Grant Applicant:

First name and surname: MUHAREM AVDISPAHIC

Signature:</td></tr>
<tr><td>Place: SARAJEVO</td><td>Date: 24/04/2008 (dd/mm/yyyy)</td><td>Registration Number:
(Obtained after submission)</td><td></td></tr>
</table>

SECTION I: AGREEMENT ON PUBLICATION

To be completed by the Grant Applicant

In case our proposal will be selected we agree that the Commission will publish the following information:

- name and address of the beneficiary,

- subject of the grant,

- amount awarded and rate of funding

<table>
<tr><td>Title of the project:</td><td colspan="3">SEE Doctoral Studies in Mathematical Sciences</td></tr>
<tr><td colspan="2">Ref. Nr. 0 - Legal Representative of the applying legal entity:
First name and surname: FARUK CAKLOVICA
Place: SARAJEVO Date: 24/04/2008 (dd/mm/yyyy)
Position: RECTOR
Signature:</td><td colspan="2" rowspan="2">Official stamp or seal of the applying legal entity:</td></tr>
<tr><td colspan="2">Ref. Nr. 1 - Grant Applicant:
First name and surname: MUHAREM AVDISPAHIC
Signature:</td></tr>
<tr><td>Place: SARAJEVO</td><td>Date: 24/04/2008 (dd/mm/yyyy)</td><td>Registration Number:
(Obtained after submission)</td><td></td></tr>
</table>

SECTION I: ENDORSEMENT LETTERS

- All **partners** (except the applicant legal entity) **must submit an endorsement letter** to confirm their role and willingness to participate in the project; these must be submitted together with the other supporting and administrative documents by the deadline **of the 15th of May 2008.**

Applicants should follow the model below.

MODEL ENDORSEMENT LETTER

OFFICIAL HEADED PAPER OF THE PARTNER

OBJECTIVE: ENDORSEMENT OF THE TEMPUS PROJECT: (FULL TITLE OF THE PROJECT)

CONTENT: *Give details of the application, confirming the support of the partner for the project. Specify the role of the partner in the project and give details on the contact person.*

For a partner from one of the partner countries indicate how the project fits into the development strategy of that partner country in the context of the reform of their higher education system.

Please insert a confirmation sentence stating that the partner has read the whole application, including the financial details, and is aware of the specific role it will have in the project.

SIGNATURE of the person legally authorised to represent the partner:
In the case of higher education institution, this means the ***rector, vice-rector, president or vice-president.*** *In the case of other legal entities, this means the* ***minister, secretary-general, chairman, executive director or their deputies***

POSITION of the person legally authorised to represent the partner

DATE: please remember that the date on the endorsement letter must be before the Joint Project application deadline (i.e. 28 April 2008)

OFFICIAL STAMP or SEAL of the partner

SECTION I: TECHNICAL CAPACITY

In order to permit an assessment of their technical capacity, applicants must submit:

- A brief CV (maximum of 2 pages) of the grant applicant, proposed members of the key project staff and of each proposed **individual expert**. The CV of the individual expert has to make explicit reference to the expertise he/she will provide in the Joint Project proposal.

- a list of projects already undertaken in the relevant field by the applicant and by the partners.

SECTION I: DECLARATION FOR QUALIFYING AS A PUBLIC BODY

To be completed by the Grant Applicant <u>if applicable</u>

For the purpose of this call, the following bodies shall be considered to have the necessary financial, professional and administrative capacity and the necessary financial stability: higher education institutions recognised as such by participating countries, as well as institutions or organisations in the higher education sector which have received over 50 % of their annual revenues from public sources over the last two years, or which are controlled by public bodies or their representatives.

We, the undersigned, declare by our honour that our institution complies with the above-mentioned definition of public body.

<table>
<tr><td>Title of the project:</td><td colspan="3">SEE Doctoral Studies in Mathematical Sciences</td></tr>
<tr><td colspan="3">Ref. Nr. 0 - Legal Representative of the Applying Higher Education Institution:

First name and surname: FARUK CAKLOVICA

Place: SARAJEVO Date: 24/04/2008 (dd/mm/yyyy)

Position: RECTOR

Signature:</td><td colspan="2" rowspan="2">Official stamp or seal of the Applying Higher Education Institution:</td></tr>
<tr><td colspan="3">Ref. Nr. 1 - Grant Applicant:

First name and surname: MUHAREM AVDISPAHIC

Signature:</td></tr>
<tr><td>Place: SARAJEVO</td><td>Date: 24/04/2008 (dd/mm/yyyy)</td><td>Registration Number:
(Obtained after submission)</td><td></td></tr>
</table>

SECTION I: LIST OF NATIONAL MEMBER ENTITIES

To be completed by the Grant Applicant if applicable

If the applying legal entity is an association/organisation/network of higher education institutions as stipulated in the call for proposals (see 5.1.1 Grant applicants in the Call for Proposals EAC/04/2008) the applicant must fill in the following table for each of its national member entities.

Refer to the Call for Proposals EAC/04/2008, Annex 5, "Glossary of codes" (page 49) for the relevant two letter codes assigned to countries. For Kosovo -1244, the code "12" should be used.

Reference Number: 1 - National member entity of the applying association/organisation/network						
Title:	**Mrs.(F)**					
First name:			*Surname:*			
Function at organisation:						
Name of the organisation:						
Type of organisation:	**<<Click here to select>>**					
Country:*			*Postal code:*			
Town:						
Address:						
Phone:	*Country code:*		*City Code:*		*Phone Nr.:*	
Fax:	*Country code:*		*City Code:*		*Fax. Nr.:*	
E-mail:						

Reference Number: 2 - National member entity of the applying association/organisation/network						
Title:	**Mrs.(F)**					
First name:			*Surname:*			
Function at organisation:						
Name of the organisation:						
Type of organisation:	**<<Click here to select>>**					
Country:*			*Postal code:*			
Town:						
Address:						
Phone:	*Country code:*		*City Code:*		*Phone Nr.:*	
Fax:	*Country code:*		*City Code:*		*Fax. Nr.:*	
E-mail:						

** Refer to the Call for Proposals, Annex 5, "Glossary of codes" (page 49) for the relevant codes assigned to countries, which specifies a two letter code for each country. For Kosovo -1244, the code 12 should be used*

Reference Number: 3 - National member entity of the applying association/organisation/network						
Title:	**Mrs.(F)**					
First name:			*Surname:*			
Function at organisation:						
Name of the organisation:						
Type of organisation:	**<<Click here to select>>**					
Country:*			*Postal code:*			
Town:						
Address:						
Phone:	*Country code:*		*City Code:*		*Phone Nr.:*	
Fax:	*Country code:*		*City Code:*		*Fax. Nr.:*	
E-mail:						

Reference Number: 4 - National member entity of the applying association/organisation/network						
Title:	**Mrs.(F)**					
First name:			*Surname:*			
Function at organisation:						
Name of the organisation:						
Type of organisation:	**<<Click here to select>>**					
Country:*			*Postal code:*			
Town:						
Address:						
Phone:	*Country code:*		*City Code:*		*Phone Nr.:*	
Fax:	*Country code:*		*City Code:*		*Fax. Nr.:*	
E-mail:						

** Refer to the Call for Proposals, Annex 5, "Glossary of codes" (page 49) for the relevant codes assigned to countries, which specifies a two letter code for each country. For Kosovo -1244, the code 12 should be used*

Reference Number: 5 - National member entity of the applying association/organisation/network						
Title:	**Mrs.(F)**					
First name:			*Surname:*			
Function at organisation:						
Name of the organisation:						
Type of organisation:	**<<Click here to select>>**					
Country:*			*Postal code:*			
Town:						
Address:						
Phone:	*Country code:*		*City Code:*		*Phone Nr.:*	
Fax:	*Country code:*		*City Code:*		*Fax. Nr.:*	
E-mail:						

Reference Number: 6 - National member entity of the applying association/organisation/network						
Title:	**Mrs.(F)**					
First name:			*Surname:*			
Function at organisation:						
Name of the organisation:						
Type of organisation:	**<<Click here to select>>**					
Country:*			*Postal code:*			
Town:						
Address:						
Phone:	*Country code:*		*City Code:*		*Phone Nr.:*	
Fax:	*Country code:*		*City Code:*		*Fax. Nr.:*	
E-mail:						

** Refer to the Call for Proposals, Annex 5, "Glossary of codes" (page 49) for the relevant codes assigned to countries, which specifies a two letter code for each country. For Kosovo -1244, the code 12 should be used*

Reference Number: 7 - National member entity of the applying association/organisation/network						
Title:	**Mrs.(F)**					
First name:			*Surname:*			
Function at organisation:						
Name of the organisation:						
Type of organisation:	**<<Click here to select>>**					
Country:*			*Postal code:*			
Town:						
Address:						
Phone:	*Country code:*		*City Code:*		*Phone Nr.:*	
Fax:	*Country code:*		*City Code:*		*Fax. Nr.:*	
E-mail:						

Reference Number: 8 - National member entity of the applying association/organisation/network						
Title:	**Mrs.(F)**					
First name:			*Surname:*			
Function at organisation:						
Name of the organisation:						
Type of organisation:	**<<Click here to select>>**					
Country:*			*Postal code:*			
Town:						
Address:						
Phone:	*Country code:*		*City Code:*		*Phone Nr.:*	
Fax:	*Country code:*		*City Code:*		*Fax. Nr.:*	
E-mail:						

** Refer to the Call for Proposals, Annex 5, "Glossary of codes" (page 49) for the relevant codes assigned to countries, which specifies a two letter code for each country. For Kosovo -1244, the code 12 should be used*

Contact Persons of additional National Member Entities

Should the list of National Member Entities exceed 8, please use the following space to add additional members. The following information must be included for each contact person:

Title, first name and surname, position at institution, type of organisation, name of institution, name of faculty, name of department, COMPLETE address, Phone, Fax and e-mail.

SECTION I: PROFIT AND LOSS ACCOUNTS

To be attached by the Grant Applicant if applicable

If the applying legal entity is not or does not qualify as a public body or is not an international organisation it has to provide its profit and loss accounts together with the balance sheet for the last three financial years for which the accounts have been closed.

SECTION II: BASIC DATA ON THE PROJECT

- **Title of the project**

The title should be concise and accurate, and should not exceed 50 characters in length. For example: Finance and Administration Training for Civil Servants.

SEE Doctoral Studies in Mathematical Sciences

- **Acronym of the project**

For example: F.A.T.C.S

DSMATH

- **Type of the project**

Please select from the list below:

Curricular Reform (CR)

- **Project duration**

Please select from the lists below:

up to 3 yrs

- **Specific Objectives of the project**

To develop structured doctoral studies in mathematical sciences through networking Western Balkans universities in a way that overcomes fragmentation and foster the reciprocal development of human resources in accordance with EHEA-ERA goals To strengthen master programs in mathematical modelling and financial mathematics To upgrade laboratories for applied mathematics at consortium members in Western Balkans countries

- **Partner country/ies involved**

Please tick the relevant box/es:

Western Balkans			
☒	AL – Albania	☒	MK – former Yugoslav Republic of Macedonia
☒	BA – Bosnia and Herzegovina	☒	RS – Serbia
☐	HR – Croatia	☐	1244 – Kosovo
☒	ME – Montenegro		

Eastern Neighbouring Area

☐	AM – Armenia	☐	MD – Moldova
☐	AZ – Azerbaijan	☐	RU – Russian Federation
☐	BY – Belarus	☐	UA – Ukraine
☐	GE – Georgia		

Southern Neighbouring Area			
☐	DZ – Algeria	☐	MA – Morocco
☐	EG – Egypt	☐	PS – Territory governed by the Palestinian Authority
☐	IL – Israel	☐	SY – Syria
☐	JO – Jordan	☐	TN – Tunisia
☐	LB – Lebanon		

Central Asia			
☐	KG – Kyrgyzstan	☐	TM – Turkmenistan
☐	KZ – Kazakhstan	☐	UZ – Uzbekistan
☐	TJ – Tajikistan		

Has the grant applicant institution (Ref. No.:0) previously acted as a grant holder / contractor for a European Commission grant / contract? *(Please select from the button below.)*

No

If yes, please provide the registration number of the most recent grant agreement / contract:

Please specify with which Directorate General of the European Commission the project had been carried out:

- **Subject area code**

Please refer to the Glossary of Codes in Annex 5 the Tempus IV Call for Proposals, EAC/04/2008 in order to find the code for the relevant subject area. Please insert ONE code only:

410

The proposal had already been submitted in a previous call: **No**

If yes, please provide the registration number:

1.
2.
3.

- **Reference number of previous Tempus projects in which some or all partners have been involved** (if any):

JEP – 12440-1997		JEP - -16081-2001		JEP – 17004-2002
JEP – 18027-2003		JEP – 18041-2003		JEP – 19099-2004
JEP – 41078-2006		JEP – 41110-2006		JEP –

- **Language of application and of future correspondence**

All future correspondence related to your project will be in the language that you choose among English, French or German. Please select from the list below:

English(E)

SECTION II: LIST OF PARTNERS

- **Partners involved in the project:**

Reference number: 0 – Legal representative of the applying legal entity *(same person as listed in the declaration under Ref. nr. 0)*						
Title:	**Mr.(M)**					
First name:	FARUK		*Surname:*	CAKLOVICA		
Function at organisation:	RECTOR					
Name of the organisation:	UNIVERSITY OF SARAJEVO					
Type of organisation:	**Higher Education Institution**:					
Erasmus Univ. Charter N°				***Compulsory for applying universities from the EU!***		
Legal Status:	**Public Sector(PS)**					
Faculty:						
Department:						
Country:*	BA		*Postal code:*	71000		
Town:	SARAJEVO					
Address:	KULINA BANA 7/II					
Phone:	*Country code:*	387	*City Code:*	33	*Phone Nr.:*	663392
Fax:	*Country code:*	387	*City Code:*	33	*Fax. Nr.:*	663393
E-mail:	rectorat@unsa.ba					

Reference number: 1 – Grant applicant *(same person as listed in the declaration under Ref. nr. 1)*						
Title:	**Mr.(M)**					
First name:	MUHAREM		*Surname:*	AVDISPAHIC		
Function at organisation:	Head of Graduate Program in Mathematics					
Name of the organisation:	UNIVERSITY OF SARAJEVO					
Type of organisation:	**Higher Education Institution**					
Legal Status:	**Public Sector(PS)**					
Faculty:	FACULTY OF SCIENCE					
Department:	MATHEMATICS					
Country:*	BA		*Postal code:*	71000		
Town:	SARAJEVO					
Address:	ZMAJA OD BOSNE 33-35					
Phone:	*Country code:*	387	*City Code:*	33	*Phone Nr.:*	279871
Fax:	*Country code:*	387	*City Code:*	33	*Fax. Nr.:*	279964
E-mail:	mavdispa@pmf.unsa.ba					

** Refer to the Call for Proposals, Annex 5, "Glossary of codes" (page 49) for the relevant codes assigned to countries, which specifies a two letter code for each country. For Kosovo -1244, the code 12 should be used*

Reference number: 2 – Contact person of partner						
Title:	**Mr.(M)**					
First name:	FRANZ		*Surname:*	KAPPEL		
Function at organisation:	Head of Institute					
Name of the organisation:	KARL-FRANZENS UNIVERSITY					
Type of organisation:	**Higher Education Institution**					
Faculty:	Faculty of Natural Sciences					
Department:	Institute for Mathematics and Scientific Computing					
Country:*	AT		*Postal code:*	8010		
Town:	GRAZ					
Address:	Heinrichstraße 36					
Phone:	*Country code:*	43	*City Code:*	316	*Phone Nr.:*	3805170
Fax:	*Country code:*	43	*City Code:*	316	*Fax. Nr.:*	3809815
E-mail:	franz.kappel@uni-graz.at					

Reference number: 3 – Contact person of partner						
Title:	**Mrs.(F)**					
First name:	ALEXANDRA		*Surname:*	SOSKOVA		
Function at organisation:	Head of Department					
Name of the organisation:	Sofia University					
Type of organisation:	**Higher Education Insitution**					
Faculty:	Faculty of Mathematics and Computer Science					
Department:	Mathematical Logic					
Country:*	BG		*Postal code:*	1164		
Town:	SOFIA					
Address:	James Bouchier blvd 5					
Phone:	*Country code:*	359	*City Code:*	2	*Phone Nr.:*	8161524
Fax:	*Country code:*	359	*City Code:*	2	*Fax. Nr.:*	8687180
E-mail:	asoskova@fmi.uni-sofia.bg					

** Refer to the Call for Proposals, Annex 5, "Glossary of codes" (page 49) for the relevant codes assigned to countries, which specifies a two letter code for each country. For Kosovo -1244, the code 12 should be used*

Reference number: 4 – Contact person of partner						
Title:	**Mr.(M)**					
First name:	ANDREY		*Surname:*	ANDREEV		
Function at organisation:	Scientific Secretary, Associate Professor					
Name of the organisation:	INSTITUTE OF MATHEMATICS AND INFORMATICS OF BULGARIAN ACADEMY OF SCIENCES					
Type of organisation:	**Research Institution**					
Faculty:						
Department:	Mathematical Modeling					
Country:*	BG		*Postal code:*	1113		
Town:	SOFIA					
Address:	"Acad. G. Bonchev" Str., Bl. 8					
Phone:	*Country code:*	359	*City Code:*	2	*Phone Nr.:*	8701072
Fax:	*Country code:*	359	*City Code:*	2	*Fax. Nr.:*	9713649
E-mail:	aandreev@math.bas.bg					

Reference number: 5 – Contact person of partner						
Title:	**Mr.(M)**					
First name:	PANAGIOTIS		*Surname:*	VLAMOS		
Function at organisation:	General Secretary, Assistant Professor					
Name of the organisation:	MATHEMATICAL SOCIETY OF SOUTH-EASTERN EUROPE					
Type of organisation:	**Non-Governmental Organisation**					
Faculty:						
Department:						
Country:*	EL		*Postal code:*	10679		
Town:	ATHENS					
Address:	Panepistimiou (Eleftheriou Venizelou) 34					
Phone:	*Country code:*	30	*City Code:*	210	*Phone Nr.:*	3616532
Fax:	*Country code:*	30	*City Code:*	210	*Fax. Nr.:*	3641025
E-mail:	vlamos@ionio.gr					

** Refer to the Call for Proposals, Annex 5, "Glossary of codes" (page 49) for the relevant codes assigned to countries, which specifies a two letter code for each country. For Kosovo -1244, the code 12 should be used*

Reference number: 6 – Contact person of partner						
Title:	**Mr.(M)**					
First name:	FEHIM		*Surname:*	DEDAGIC		
Function at organisation:	Dean of Faculty					
Name of the organisation:	UNIVERSITY OF TUZLA					
Type of organisation:	**Higher Education Institution**					
Faculty:	Faculty of Natural sciences and Mathematics					
Department:	Department of Mathematics					
Country:*	BA		*Postal code:*	75000		
Town:	TUZLA					
Address:	Univerzitetska 4					
Phone:	*Country code:*	387	*City Code:*	35	*Phone Nr.:*	320860
Fax:	*Country code:*	387	*City Code:*	35	*Fax. Nr.:*	320861
E-mail:	fehim.dedagic@untz.ba					

Reference number: 7 – Contact person of partner						
Title:	**Mr.(M)**					
First name:	MIROSLAV		*Surname:*	PRANIC		
Function at organisation:	Assistant Professor					
Name of the organisation:	UNIVERSITY OF BANJA LUKA					
Type of organisation:	**Higher Education Institution**					
Faculty:	Faculty of Natural Sciences and Mathematics					
Department:	Department of Mathematics and Informatics					
Country:*	BA		*Postal code:*	51000		
Town:	BANJA LUKA					
Address:	M. Stojanovica 2					
Phone:	*Country code:*	387	*City Code:*	51	*Phone Nr.:*	311651
Fax:	*Country code:*	387	*City Code:*	51	*Fax. Nr.:*	319142
E-mail:	pranic77m@yahoo.com					

** Refer to the Call for Proposals, Annex 5, "Glossary of codes" (page 49) for the relevant codes assigned to countries, which specifies a two letter code for each country. For Kosovo -1244, the code 12 should be used*

Reference number: 8 – Contact person of partner						
Title:	**Mrs.(F)**					
First name:	ZORICA		*Surname:*	STANIMIROVIC		
Function at organisation:	Professor					
Name of the organisation:	UNIVERSITY OF BELGRADE					
Type of organisation:	**Higher Education Institution**					
Faculty:	Faculty of Mathematics					
Department:	Numerical Mathematics and Optimization					
Country:*	RS		*Postal code:*	11000		
Town:	BEOGRAD					
Address:	Studentski trg 16/IV					
Phone:	*Country code:*	381	*City Code:*	11	*Phone Nr.:*	2027801
Fax:	*Country code:*	381	*City Code:*	11	*Fax. Nr.:*	2630151
E-mail:	zoricast@matf.bg.ac.yu					

Reference number: 9 – Contact person of partner						
Title:	**Mr.(M)**					
First name:	LJUPCO		*Surname:*	NASTOVSKI		
Function at organisation:	Assistant Professor					
Name of the organisation:	Ss. CYRIL AND METHODIUS UNIVERSITY OF SKOPJE					
Type of organisation:	**Higher Education Institution**					
Faculty:	Faculty of Mathematics and Natural Sciences					
Department:	Institute of Mathematics					
Country:*	MK		*Postal code:*	1000		
Town:	SKOPJE					
Address:	Gazi Baba bb					
Phone:	*Country code:*	389	*City Code:*	2	*Phone Nr.:*	3249653
Fax:	*Country code:*	389	*City Code:*	2	*Fax. Nr.:*	3228141
E-mail:	ljupcona@iunona.pmf.ukim.edu.mk					

** Refer to the Call for Proposals, Annex 5, "Glossary of codes" (page 49) for the relevant codes assigned to countries, which specifies a two letter code for each country. For Kosovo -1244, the code 12 should be used*

Reference number: 10 – Contact person of partner						
Title:	**Mr.(M)**					
First name:	VLADIMIR		*Surname:*	JACIMOVIC		
Function at organisation:	Assistant Professor					
Name of the organisation:	UNIVERSITY OF MONTENEGRO					
Type of organisation:	**Higher Education Institution**					
Faculty:	Faculty of Natural Sciences and Mathematics					
Department:	Department of Mathematics and Computer Science					
Country:*	ME		*Postal code:*	81000		
Town:	Podgorica					
Address:	Dzordza Vasingtona bb.					
Phone:	*Country code:*	382	*City Code:*	81	*Phone Nr.:*	245204
Fax:	*Country code:*	382	*City Code:*	81	*Fax. Nr.:*	245608
E-mail:	vladimir_jacimovic@hotmail.com					

Reference number: 11 – Contact person of partner						
Title:	**Mr.(M)**					
First name:	FATOS		*Surname:*	KOPLIKU		
Function at organisation:	Head of Department					
Name of the organisation:	UNIVERSITY LUIGJ GURAKUQI of SHKODRA					
Type of organisation:	**Higher Education Instituion**					
Faculty:	Faculty of Natural Sciences					
Department:	Departament of Mathematics and Computer science					
Country:*	AL		*Postal code:*			
Town:	SHKODER					
Address:	Sheshi 2 Prilli					
Phone:	*Country code:*	355	*City Code:*	22	*Phone Nr.:*	47442
Fax:	*Country code:*	355	*City Code:*	22	*Fax. Nr.:*	43747
E-mail:	fatos_kopliku@yahoo.com					

** Refer to the Call for Proposals, Annex 5, "Glossary of codes" (page 49) for the relevant codes assigned to countries, which specifies a two letter code for each country. For Kosovo -1244, the code 12 should be used*

Reference number: 12 – Contact person of partner						
Title:	**Mrs.(F)**					
First name:			*Surname:*			
Function at organisation:						
Name of the organisation:						
Type of organisation:	**<<Click here to select>>**					
Faculty:						
Department:						
Country:*			*Postal code:*			
Town:						
Address:						
Phone:	*Country code:*		*City Code:*		*Phone Nr.:*	
Fax:	*Country code:*		*City Code:*		*Fax. Nr.:*	
E-mail:						

Reference number: 13 – Contact person of partner						
Title:	**Mrs.(F)**					
First name:			*Surname:*			
Function at organisation:						
Name of the organisation:						
Type of organisation:	**<<Click here to select>>**					
Faculty:						
Department:						
Country:*			*Postal code:*			
Town:						
Address:						
Phone:	*Country code:*		*City Code:*		*Phone Nr.:*	
Fax:	*Country code:*		*City Code:*		*Fax. Nr.:*	
E-mail:						

** Refer to the Call for Proposals, Annex 5, "Glossary of codes" (page 49) for the relevant codes assigned to countries, which specifies a two letter code for each country. For Kosovo -1244, the code 12 should be used*

Reference number: 14 – Contact person of partner						
Title:	**Mrs.(F)**					
First name:			*Surname:*			
Function at organisation:						
Name of the organisation:						
Type of organisation:	**<<Click here to select>>**					
Faculty:						
Department:						
Country:*			*Postal code:*			
Town:						
Address:						
Phone:	*Country code:*		*City Code:*		*Phone Nr.:*	
Fax:	*Country code:*		*City Code:*		*Fax. Nr.:*	
E-mail:						

Reference number: 15 – Contact person of partner						
Title:	**Mrs.(F)**					
First name:			*Surname:*			
Function at organisation:						
Name of the organisation:						
Type of organisation:	**<<Click here to select>>**					
Faculty:						
Department:						
Country:*			*Postal code:*			
Town:						
Address:						
Phone:	*Country code:*		*City Code:*		*Phone Nr.:*	
Fax:	*Country code:*		*City Code:*		*Fax. Nr.:*	
E-mail:						

** Refer to the Call for Proposals, Annex 5, "Glossary of codes" (page 49) for the relevant codes assigned to countries, which specifies a two letter code for each country. For Kosovo -1244, the code 12 should be used*

Reference number: 16 – Contact person of partner						
Title:	**Mrs.(F)**					
First name:			*Surname:*			
Function at organisation:						
Name of the organisation:						
Type of organisation:	**<<Click here to select>>**					
Faculty:						
Department:						
Country:*			*Postal code:*			
Town:						
Address:						
Phone:	*Country code:*		*City Code:*		*Phone Nr.:*	
Fax:	*Country code:*		*City Code:*		*Fax. Nr.:*	
E-mail:						

Reference number: 17 – Contact person of partner						
Title:	**Mrs.(F)**					
First name:			*Surname:*			
Function at organisation:						
Name of the organisation:						
Type of organisation:	**<<Click here to select>>**					
Faculty:						
Department:						
Country:*			*Postal code:*			
Town:						
Address:						
Phone:	*Country code:*		*City Code:*		*Phone Nr.:*	
Fax:	*Country code:*		*City Code:*		*Fax. Nr.:*	
E-mail:						

** Refer to the Call for Proposals, Annex 5, "Glossary of codes" (page 49) for the relevant codes assigned to countries, which specifies a two letter code for each country. For Kosovo -1244, the code 12 should be used*

Contact details of additional Partners
Should the number of partners exceed 17, please use the following space to add additional members. The following information must be included for each contact person: Title, first name and surname, position at institution, type of organisation, name of institution, name of faculty, name of department, COMPLETE address, Phone, Fax and e-mail.

List of proposed individual experts:

Please note that individual experts **cannot come from any of the partner organisations**, neither as staff nor as students, as people within the partner organisations can be involved in the project directly.

Reference: i – Individual expert (from non-partners) proposed for specific tasks in project (CV must be included of a maximum of 2 pages)						
Title:	**Mrs.(F)**					
First name:		*Surname:*				
Function at organisation:						
Name of the organisation:						
Type of organisation:	**<<Click here to select>>**					
Faculty:						
Department:						
Country:*		*Postal code:*				
Town:						
Address:						
Phone:	*Country code:*		*City Code:*		*Phone Nr.:*	
Fax:	*Country code:*		*City Code:*		*Fax. Nr.:*	
E-mail:						

Reference: ii – Individual expert (from non-partners) proposed for specific tasks in project (CV must be included of a maximum of 2 pages)						
Title:	**Mrs.(F)**					
First name:		*Surname:*				
Function at organisation:						
Name of the organisation:						
Type of organisation:	**<<Click here to select>>**					
Faculty:						
Department:						
Country:*		*Postal code:*				
Town:						
Address:						
Phone:	*Country code:*		*City Code:*		*Phone Nr.:*	
Fax:	*Country code:*		*City Code:*		*Fax. Nr.:*	
E-mail:						

** Refer to the Call for Proposals, Annex 5, "Glossary of codes" (page 49) for the relevant codes assigned to countries, which specifies a two letter code for each country. For Kosovo -1244, the code 12 should be used*

Reference: iii – Individual expert (from non-partners) proposed for specific tasks in project (CV must be included of a maximum of 2 pages)						
Title:	**Mrs.(F)**					
First name:			*Surname:*			
Function at organisation:						
Name of the organisation:						
Type of organisation:	**<<Click here to select>>**					
Faculty:						
Department:						
Country:*			*Postal code:*			
Town:						
Address:						
Phone:	*Country code:*		*City Code:*		*Phone Nr.:*	
Fax:	*Country code:*		*City Code:*		*Fax. Nr.:*	
E-mail:						

Reference: iv – Individual expert (from non-partners) proposed for specific tasks in project (CV must be included of a maximum of 2 pages)						
Title:	**Mrs.(F)**					
First name:			*Surname:*			
Function at organisation:						
Name of the organisation:						
Type of organisation:	**<<Click here to select>>**					
Faculty:						
Department:						
Country:*			*Postal code:*			
Town:						
Address:						
Phone:	*Country code:*		*City Code:*		*Phone Nr.:*	
Fax:	*Country code:*		*City Code:*		*Fax. Nr.:*	
E-mail:						

Refer to the Call for Proposals, Annex 5, "Glossary of codes" (page 49) for the relevant codes assigned to countries, which specifies a two letter code for each country. For Kosovo -1244, the code 12 should be used

List of individual experts

Should the number of individual experts exceed 4, please use the following space to add additional experts. The following information must be included for each contact person:

Title, first name and surname, function at institution, type of organisation, name of institution, name of faculty, name of department, COMPLETE address, Phone, Fax and e-mail.

SECTION III: PROJECT PARTICULARS

This application form requires a general understanding of the Logical Framework Matrix approach and some familiarity with the vocabulary associated with it. Applicants who have never used the approach are therefore advised to familiarise themselves with it and to consult one of the numerous handbooks available on the subject on the internet.

In section III you are required to provide detailed information on your project in the form of **narrative parts** and accompanying **tables**; the information provided should not be repetitive but **complementary**. In the narrative sections you are expected to describe aspects of your project from a strategic and methodological point of view whereas in the tables you are asked to enter into greater detail in relation to aspects such as expected outcomes, activities, inputs and budgetary requirements.

Applicants should note that each proposal will be assessed on the basis of the elements included in this application only. You can include web site references in your application, but the assessment of your proposal will not be based on additional information found on a website but not contained within the application.

III.1 BACKGROUND OF THE PROJECT

A maximum of four pages, (A4 size)

III.1a Problem/s analysis

Please describe the actual situation

- in the Partner Country/ies - if relevant please refer to respective policies, legislation and/or regulations etc.

- of the staffing levels, teaching and language skills, IT skills, number of students/trainees, condition and level of equipment, facilities and infrastructure etc. at the partner institution/s or organisations that will benefit from the project, as appropriate.

  Your information should be descriptive and specific to the subject of the proposal.

You should present the justification for the project and clearly identify the specific problem/s which the proposed project intends to solve.

Explain why this/these problem/s has/have been selected to be addressed, as opposed to others, and how the project proposal fits into the development strategies of the involved partners.

Also, please describe briefly how your project proposal was prepared.

Approaching 2010, that is supposed to mark the passage on European level from the Bologna Process to the European Higher Education Area, there is a need for coordinated efforts towards a comprehensive implementation of Bologna principles in education reform in South East Europe and introduction of the third cycle of education at Western Balkans universities.

The Western Balkan countries represented in this project, Albania, Bosnia and Herzegovina, FYR Macedonia, Serbia and Montenegro officially joined the Bologna process in 2003. It took several years until the proper legislative changes have been adopted and partly put into practice at a various pace in various Western Balkans countries and not at the same time at different universities within the same country.

Parliament of Bosnia and Herzegovina passed the new law on higher education in August 2007, thus fulfilling one of preconditions for signing a pre-accession agreement with EU. In order to

accomplish Bologna goals, preparations are underway at all universities for introduction of the structured doctoral study program in the duration of three years. This is a common feature of the situation in all partner countries.

It is worth noticing that the processes within universities were faster than the legal recognition of necessary changes in higher education sector and the TEMPUS program has an excellent record in supporting reform-minded academic community.

Among the several TEMPUS projects coordinated by University of Sarajevo, the first one, TEMPUS-JEP 12440-97 "Developing the Faculty of Science Activities" (coordinated by University of Sarajevo and contracted by Kingston University, UK, with Universities of Copenhagen, Padova, and Graz as EU partners and all BA universities involved) happened to be a pioneering one in restructuring the curricula towards 3+2 model in South East Europe. (Cf. the project final report of August 2000). A remarkable feature of the project was that, based on the needs analysis of a post war country with a highly decentralized political system and the inherited ex-Yugoslav tradition in higher education, it opted on a principle level for then existing practice of University of Copenhagen and anticipated Bologna model. Bologna Declaration, signed in 1999, turned the new light on the project goals and in the last project year all the partners unexpectedly found themselves already working on something that was to become a collective endevaour all over the Europe.

Since 2003, when the Berlin Communique brought the doctoral programmes into the reform of degree structures under the Bologna process, doctoral education - as the third cycle of higher education and at the same time the first phase of young researchers' careers - has become a major priority for European universities. It was recognized as having a crucial role in achieving the goals of European Knowledge Society through linking the European Higher Education Area and European Research Area.

Facing the situation of scarce resources in any partner country, the proposed project aims to provide a sustainable regional answer to the challenge of establishing a high quality third cycle in mathematical sciences with a potential for a wider impact on doctoral education in other areas of science.

From the perspective of Europe’s research goals as well as interests of Western Balkan countries in joining European knowledge based society, it is worth noting that Mathematics is at the heart of historically unprecedented scientific and technological development of our times. The common classification of mathematical disciplines updated every ten years by American Mathematical Society and European Mathematical Society comprises 68 pages in two colons. At the same time, to quote a Fields medalist Timothy Gowers, “If you were to work out what mathematical research has cost the world in the last 100 years, and then work out what the world has gained, in crude economic terms, then you would discover that the world has received an extraordinary return on a very small investment.“

Describing the situation in South East Europe in the report Trends V: Universities shaping the European Higher Education Area, European University Association found that the expert pool in any single (new Bologna member) country that could be used to evaluate the quality of programmes is extremely limited and this is clearly an issue where regional cooperation seem to offer a solution. (p. 71 of the report). More so, when it comes to adequate implementation of the third cycle.

Doctoral programmes are crucial for research and inovation capacity of the society. Both academic and non-academic sectors are in need for a systematic increase in the number of highly qualified researchers. Due in part to historical reasons combined with budgetary restrictions and inadequate perception of the role of a univeristy in a socitey, research at WB universities is also hampered by the atomization of research interests.

Let us illustrate the problem of critical mass of doctoral students on the example of the largest university from the WB countries participating in this project - University of Belgrade. University of Belgrade just introduced a three year PhD program and designated 180 ECTS to it. In this academic year, Faculty of Mathematics was ready to enroll 2 PhD students in Analysis, 2 in Algebra, 2 in

Probability and Statistics, 2 in Geometry, 2 in Mathematical logic and theoretical computer science, 3 in Numerical mathematics and optimization, 2 in Topology etc.When it comes to the core subjects (A list in the present PhD curricula), in almost all cases these sets are pairwise disjoint. Now, after a PhD candidate, e. g. in Algebra, passes two obligatory courses (60 ECTS), he/she chooses three electives from the B list of 20+ courses (45 ECTS), and then takes a special course (15 ECTS) in consultations with the thesis advisor. In reality, with only two candidates in Algebra, doctoral education turns into individual at a very early stage.

The need for new doctors in the area of mathematical sciences in the academia sector and the problem of critical mass on professors' side will be exemplified taking the case of the grant applicant country. University of Sarajevo, consisting of 23 higher education institutions in sciences, engineering, agriculture, humanities, social sciences, medicine, performing arts, is supposed to become an integrated university in 2008. It has 60.000 students, 32.000 of them studying fulltime. Approximately one quarter of these 32.000 students have mathematical courses in their curricula. There are 20 mathematics professors at the University of Sarajevo. University of Banja Luka has 11 mathematics professors, again almost all with separate research interests. University of Tuzla has 7 own mathematics professors.

Like in Bosnia and Herzegovina, individual education only is the present state of obtaining doctoral degrees in mathematical sciences in Montenegro, FYR Macedonia and Albania. Structured doctoral programmes according to the Bologna lines are still to be introduced. The needs are obvious and the critical mass does not exist.

Taking very seriously their responsibility to develop and deliver high quality doctoral studies that meet the needs of their countries and contribute to EU integrative processes, Universities of Sarajevo, Banja Luka and Tuzla, University of Belgrade, University of Montenegro, Ss. Cyril and Methodius University of Skopje and University Luigj Gurakuqi of Shkodra with the EU partners in the proposed TEMPUS-JP SEE Doctoral Studies in Mathematical Sciences are determined to develop a coherent system promoting all-embracing quality culture while respecting university diversities and benefiting from these.

III.1b Presentation of the partners and external experts

In this section you should explain why the selected partners are best suited to participate in the project and describe their particular expertise in relation to the project objectives. Partners should be chosen due to their specific capacities, expertise and experience necessary to achieve the project objective. Please focus on elements which are essential for the project, such as

- particular capacity and expertise
- relevant previous experience
- contacts beneficial to the project etc.

In case of involvement of external experts, please describe their specific expertise and contribution to the project.

The grant applicant, University of Sarajevo (1949; wwww.unsa.ba), Faculty of Natural Sciences and Mathematics, has successfully coordinated several TEMPUS projects from the very beginning of the TEMPUS program in Bosnia and Herzegovina: TEMPUS-CME 02509-96 Information Technology Development, TEMPUS-JEP 12440-97 Developing the Faculty of Science Activities, TEMPUS-NP 15062-2000 SEE Regional Cooperation in Higher Education, etc. The key success of JEP 12440 was that already in 2000 all departments of this Faculty produced curriculum descriptions and outlined syllabi for the 3+2 version of their courses and brought these closer into line with EU models. Department of Mathematics offers master degrees in pure mathematics, applied mathematics, theoretical computer science and mathematical education. On PhD level, the

old system is still in place. A large majority of science professors at all Bosnian universities obtained their degrees from this institution.The present strenght of the Department of Mathematics lies in harmonic analysis, analytic number theory and difference equations and in the number of young graduates eager to enter doctoral studies.

Karl Franzens University of Graz (1585; www.kfunigraz.ac.at) has a very rich experience in cooperation with South East Europe. Indeed, it has defined its university-wide, main focus “South-Eastern Europe” as the profile-setting core of its university developmental concept. The Faculty of Natural Sciences and Mathematics took an active part in a couple of TEMPUS projects coordinated by WB partners. Its Institute for Mathematics and Scientific Computing has a leading role in the present BioMedMath Network (Mathematical Modeling of Human Physiological System with Biomedical Applications) 2007-2010. In the previous round of Marie Curie Training Series, this Institute and Departmant of Mathematics of University of Sarajevo jointly organized "Sarajevo Summer School on Mathematical Techniques in Modeling Physiological Systems", September 10-22, 2006. University of Graz contracted TEMPUS-JEP 41078-2006 From Quality Assurance to Strategy Development to be finalized by the end of 2008. The Faculty of Natural Sciences and Mathematics has just implemented a PhD-curriculum according to the Bologna process.

Sofia University is the leading research and teaching university of Bulgaria. The Faculty of Mathematics and Informatics (FMI; established 1889; www.fmi.uni-sofia.bg), with more than 150 researchers and about 2.300 full-time students, is among the largest departments of Sofia University. The Faculty has a well developed research infrastructure. The research in mathematics and Computer Science involving PhD students is very intensive. It is a center of several projects paving the way towards entering the European Research Area (ERA), the European Space of Higher Education and the European Area of Lifelong Learning. At the moment FMI participates in projects as: FP7 Capacities: Research Potential: Unlocking and developing the research potential in the EU´s convergence regions and outermost regions- SISTER - Strengthening the IST Research Capacity of Sofia University, etc.

The Institute of Mathematics and Informatics of the Bulgarian Academy of Sciences (IMI-BAS; www.math.bas.bg; established 1947)) has 175 researchers (incl. 105 full and associate professors) in 21 departments. The IMI is traditionally characterized by a good balance between fundamental, applied and educational activities with a broad social impact. During the last decade IMI trained successfully several hundreds master and about 100 PhD Bulgarian and foreign students in almost all fields of fundamental and applied mathematics and informatics. In the last years IMI-BAS participates in many international projects as: FP6-2004-IST-4 PP-027451 LOGOS "Knowledge-on-Demand for Ubiquitous Learning” (2006-09); RF-81103 CHIRON “Referring Innovative Technologies and Solutions for Ubiquitous Learning” (2004-06); FP6 SSA project HUBUSKA “Networking Centres of High Quality Research on Knowledge Technologies and applications” (2004-07); European Thematic Network 114046-CP-1-2004-1-BG-ERASMUS-TN DOCTORAL EDUCATION IN COMPUTING (DEC); EU FP7 INF 211983 MONDILEX (2007-2009) - Conceptual Modelling of Networking of Centres for High-Quality Research in Slavic Lexicography and Their Digital Resources.

The Mathematical Society of Southeastern Europe MASSEE (www.massee.org) consists of the member societies from 9 SEE countries and can be theoretically operant within a populace of 65 millions, interconnected via the internet that includes more than 350000 regional internet hosts and more than 7,5 million users. There is an extensive spectrum of activities - including networking - and study groups of national and international standing related to the areas of education at all levels. The main scope of MASSEE is realized through developing and running research and/or educational projects, organizing specific scientific meetings, establishing scientific publications and creating documentation.

University of Tuzla (1976; www.untz.ba) is the first integrated university in Bosnia and Herzegovina. In the highly decentralized political system introduced through Annex IV of the Dayton

Peace Accord, Tuzla Canton was the first to provide the legal framework for changes in the inherited ex-Yugoslav university system. The awareness of necessity of such changes was present within reform-minded parts of BA academic community additionally supported by the in mean-time gained experience through targeted TEMPUS projects and intensified international cooperation. University of Tuzla has coordinated JEP 18041-2003 Introduction of ECTS at the BIH Universities. Department of Mathematics offers master degree in Applied mathematics. It has good collaboration with universities of Sarajevo, Zagreb, Belgrade and Bosnian professors at the universities in the West

University of Belgrade (1905; www.bg.ac.yu) is alma mater of higher education in Sebia. It educates 78.000 students at 31 faculties. The Faculty of Mathematics has 52 professors (assistant, associate and full-time) active in various areas of mathematical research and 2000 students. It offers 9 master programmes. The first generation of three year doctoral studies is enrolled this academic year. The Faculty has coordinated TEMPUS-JEP 41110-2006 Teacher Education - Innovation of Studies in Mathematics and IT, contracted by Sofia University and involving University of Montenegro among the partners. The University supports participation in various international competitions for awarding funds for scientific research and the development of the educational process. It makes regular contacts and cooperates with trade associations as well as student exchange associations, for the purpose of performing study and summer practice programs. A great number of foreign students attend degree and non-degree studies at the faculties of the University.

University of Banja Luka (1975) is the leading university in the BA entity Republika Srpska. The University has coordinated JEP 17004-2002 "European management project for BiH universities" and was a partner in the projects mentioned above. Faculty of Natural Sciences also participated in the TEPMUS-JEP-16081-2001 "Improvement of Teaching Quality in South East Europe" coordinated by University of Erlangen-Nuernberg. Like universities of Tuzla and Belgrade, it opted for 4+1 model in the reform initialized by the Bologna Process. Department of Mathematics has strong cooperation with University of Belgrade in the teaching and research activities. The postgraduate studies are still to be organized.

Sts. Cyril and Methodius University (1949; www.ukim.edu.mk), Faculty of Natural Sciences and Mathematics in Skopje is the oldest institution for higher education in natural sciences in FYR Macedonia. University has 36.000 students and 2.300 teaching staff. According to the surveys of the Ministry of Science, the Faculty of Natural Sciences and Mathematics reveals the highest scientific activity on international level, far above other scientific institutions in the country. Its academic staff successfully participated in several TEMPUS JEPs, many NATO and a few FP6 projects. Among other, Sts. Cyril and Methodius University Skopje has coordinated TEMPUS JEP 18027-2003 Creating e-Library Integrated into Faculty Information System.

University of Montenegro (1974; www.ucg.cg.ac.yu) coordinated and University of Ljubljana contracted TEMPUS-JEP 19099-2004 "Revised and Update Courses in Natural Sciences at University of Montenegro" that lead to the reform of the first two cycles according to the 3+2 model. It is the only state-owned university in the country with corresponding responsibilities for future development of ME society. Department of Mathematics and Computer Science is one of the three departments of the Faculty of Natural Sciences and Mathematics. The first generation of students studying one of six offered Bologna master programmes will graduate by the time when the doctoral structure will be established through the proposed project, curricula developed and the first phase of its implementation just to begin.

University Luigj Gurakuqi of Shkodra has experienced a rapid development since 1990, significantly supported through Tempus Program. It participated in 9 JEP projects and established cooperation with universities of Klagenfurt, Bari, Florence, Bologna, Han. Particularly important was the role of overall assistance received from Karl-Franzens University of Graz. With three out of five tenured professors at the age over 63, Department of Mathematics and Informatics is existentially interested in benefits of SEE doctoral program in mathematical sciences.

III.2 THE PROJECT

A maximum of four pages , (A4 size).

Having already identified the problems and needs in Section III.1a, in this narrative part you should describe the project fully. It must be clearly and directly related to the identified problems.

Address as appropriate the following points in your description of the project:

- academic content
- pedagogical methodology
- involvement of academics, students and stakeholders at large
- quality assurance processes
- convergence with EU higher education policies

For example, present:

- a clear definition of what the duration and structure of new or up-dated course/s will be, identify any innovative subjects which will be introduced as a result of project activities and a description how the project activities will progress over time
- an explanation of which groups will be involved (for example, administrative/academic/students and/or their representatives,) and how they will be involved, as project staff or as target group
- a clear indication of how many training courses will be prepared and delivered during the project life and forecasts of how many people will be trained and a description of the improved and new skills that will be acquired by the trainees;
- a description of new (teaching) methodology/ies and new equipment to be introduced and of how they-will contribute to teaching, learning and managing (Joint Projects) or policy development, system change and legislation (Structural Measures)
- a description of what changes will be introduced at institutional level as a result of the activities;
- the number and duration of mobilities, etc.

You must clearly indicate the working methodologies and processes to be used.

The outcomes that will be achieved in each year should be described and information on the activities, and the resources that will be required to achieve them, should be provided.

The far-reaching objective of this project is to enhance the capacities of Western Balkans universities in mathematical sciences for successful integration into European Higher Education Area and European Research Area. The focal point is the development of structured doctoral studies as the third Bologna cycle of higher education through networking partner universities in a way that overcomes fragmentation and foster the reciprocal development of human resources. By December 2010, i.e. the end of the second year of the project, a model will be established that successfully addresses the critical mass problem with a perspective of becoming an example of good practice for other sciences as well. If just the PhD structure and curricula design were the goal, we could consider it realized at this point. The third year is a guarantee for its acceptance, sustainability and long-term impact. It presents the model at work. Six intensive courses four weeks long in the core subjects (two for each of the three

major groups in pure mathematics, applied mathematics and theoretical computer science, gathering the first time enrolled candidates from all partner universities and with lecturers coming from EU and the region) are supposed to mark the start of a hopefully irreversible process how high quality doctoral education is to be conducted in the region in the future. The cotutelle arrangements will be encouraged and prospects for joint or double degrees opened. Research groups will be formed (thus counter-acting isolation and atomization of research interests) with better chances to benefit from and contribute to European programs of a knowledge based society.

Serious work on introducing the third cycle up to the Bologna standards necessarily leads to a number of important multiple effects. One of these is assessment of existing master programs from the standpoint of learning outcomes. This will be done during the first year. Possibilities for strengthening through upgrade in content and teaching methodology will be exemplified by two modules to be delivered in the form of intensive courses during the second year: one in Mathematical modeling and one in Financial mathematics. Mathematical modeling is selected for its high interdisciplinary potential as well as for providing an opportunity within this project for gaining a synergy effect experience of establishing connections to an existing European Training Network. Financial mathematics is chosen for its raising importance but also for its attractivness in WB societies in transition. Both build excellent cases for considering the dichotomy laying at the heart of the second cycle: between scientific and job oriented goals.

While doctoral programmes are unique they should not be considered in isolation but in relation to the implementation of the three Bologna cycles as a whole: a research component, and the development of transferable skills, need to be adequately included and developed throughout the cycles. This is verbatim the first conslusion in the aptly entitled final document "Matching Ambition with Responsibilities and Resources" of Bologna Seminar on Doctoral Programmes held in Nice in December 2006 and preparing recommendations for the London Communique. Indeed, Bologna Process is changing the educational paradigm in Europe. The planned system of study visits within the project is a part of strategy to update the present knowledge and train the next generation of mathematics professors at Western Balkans universities to meet the challenge. Though spread over all three years, the highest concentration is, as expected, in the second year, when the main work on curricula design is to be done.

There is an obvious need to upgrade IT and library facilities and where possible to improve management of the limited resourses through inter-university coordination. The laboratories for applied mathematics at consortium members in Western Balkans countries will be upgraded and training provided for an efficient use of such equipment. Better access to IT will also increase benefits from present state of several international projects directed to establishing a digitalized library of mathematical literature.

Thus, the outcomes leading to achievemnt of the objective are the following:

I. Development of a model of structured doctoral studies in Mathematical Sciences involving the network of Western Balkans universities
II. Doctoral curricula design in the areas of Pure Mathematics, Applied Mathematics and Theoretical Computer Science and the first phase of its implementation
III. Strategy to train the next generation of mathematics professors at Western Balkans universities for the research-based education and student-centered learning
IV. Strengthening master programs from the standpoint of learning outcomes and labor market/link to the third cycle dichotomy: pilot cases in Mathematical modeling and Financial mathematics
V. Improvement of IT and library facilities

VI. Effective and efficient management of the JP, dissemination of the approach to ensure sustainability of objectives after completion of the project, raised quality assurance procedures

Year One: DOCTORAL PROGRAM STRUCTURE AND CORE KNOWLEDGES

At the first meeting of the Consortium Committee to take place in Sarajevo in January 2009, the achieved stage in implementation of Bologna goals in partner countries will be presented (including the relevant parts of the new Bologna indicators that will be known by the end of 2008 in preparation of the Ministerial conference 2009. We will also have the Extraodinary Bologna Follow Up Group meeting on Bologna Beyond 2010 behind us /Sarajevo, June 24-25, 2008/.). Informations about developments that will have taken place in higher education sector in our countries and at our universities in the mean-time after submitting the proposal, will be exchanged and discussed. Going carefully through consortium members' roles and responsibilities, realization of the activities planned for the first and second half of the year will be agreed in detail.

Study visits from 2nd month to 6th month will serve the purpose of:

a) assesment of existing practice in obtaining PhD degree in mathematical sciences at partner universities

b) comparizon with Bologna doctoral programmes at EU universities

c) identifying the areas of expertize in mathematical sciences at partner universities from EHEA-ERA perspective

The obtained insights will be at the base of the Workshop on PhD structure to be held in Graz in 6th month. Duration of doctoral program, proportion between taught courses and research, supervision modalities, embedding in institutional strategies and policies will be discussed and agreed upon by the consortium members. The coming activities on dissemination and sustainability will be reviewed.

Initializing curricula development phase, a scholarly representative Academic Board will be formed embracing task forces for pure mathematics, applied mathematics and theoretical computer science. The board will consist of 10 experts from EU and WB (3x3+1, i.e. 3 per global area of mathematical sciences and a chairperson) agreed upon by the consortium members, based on the experts' academic merits and the readiness to contribute to the success of the project. The first job of the Board will be to prepare a draft on the core knowledges in the doctoral education of pure mathematicians, applied mathematicians and theoretical computer scientists. In parallel, study visits will run involving wider circle of professors from consortium institutions into brain stroming centered around new PhD curricula development. SEE Young Researchers' Workshop in 9th month in Macedonia and original research results presented there will be an additional indicator of the present state of young researchers' education in the region.

Academic Board will finalize the Recommendations on the core knowledges in pure mathematics, applied mathematics and theoretical computer science at its meeting in Sofia in 10th month.

The above Recommendations will be discussed at the Workshop on PhD Core Subjects and Quality Assurance in Tuzla in 11th month. There will be decided which parts of the core knowledges are to be covered by six quality standard setting courses to be held during the SEE Doctoral Year in Mathematical Sciences 2011 (3rd project year). Consortium member departments will be asked to prepare during next three months PhD curricula proposals that incorporate these courses and the other parts of the core knowledges. Academic Board will be in charge of designing syllabi for the six courses agreed on the Workshop by the end of 2nd month of 2nd year.

Link between the second and the third cycle will be the point of attention in the third group of study visits during this year. Master degree being a main route to doctoral education, Workshop on Scientific and Labor market oriented goals: Mathematical modelling and Financial Mathematics, in 10th month in Podgorica, will concentrate on learning outcomes of master studies and prospects for doctoral education in these interdisciplinary rich and labor market attractive fields.

One week training in the use of IT in mathematical modelling for a targeted group of 10 young

experts from the partner universities will take place in Graz in Month 9.

Procurement of IT equipment is planed for the next three month period.

At the meeting in 12th month, Consortium Committee will review Year 1 activities and consider in detail the activities planned for Year 2 with any small amendments that might occur.

Year Two: CURRICULA DESIGN AND CAPACITY BUILDING

Academic work at consortium member departments on curricula proposals in line with the conclusions of the Worskhop on PhD Core Subjects will be finalized by the end of 2nd month. At the same time, Academic Board will have designed the syllabi for the six core courses as asked. After the AB meeting on program monitoring and core subjects syllabi in Month 3, the networked activities at WB partner universities will concentrate on producing syllabi for courses covering other parts of core knowledge, ellective and special courses and research seminars. The series of one day round tables at WB universities on PhD structure and curricula in mathematical sciences (Month 4) will make the outcomes of the work on the project wider known. The Workshop on harmonized PhD program to be held in Belgrade in Month 6, will mark the whole process of activities on institutional approval. The agreed model of SEE Doctoral Studies in Mathematical Sciences and the PhD curricula will be aproved at all WB partner institutions by the end of Month 10-mid of Month 11. The first generation of networked doctoral studies in mathematical sciences will be enrolled by the end of Month 12.

A characteristic feature of the whole Year 2 will be the impact on systematic development of human resources. The number of present professors, teaching assistants and students at WB universities who will be in position to gain, through two-week and four-week stays, the first-hand experience about emerging realities of European higher education and European research areas as welll as to collaborate on finding the regional answers to new challenges will have a lasting influence on academic developments at partner institutions.

Three events will provide examples of good practice related to the link between master and doctoral education, turning light on the importance of interdisciplinary research.

Intensive course and lab in Mathematical modelling will take place in Shkodra in 5th month.

In Month 8, three young researchers from WB universities will participate in a 14 day summer school aimed at PhD and postdoctoral students "Mathematical Modelling of Cancer Growth and Treatment" in Dundee 2010. Two WB professors will take part in a 3 day scientific workshop immediately after. The summer school and the workshop form Event 4 in FP7 Marie Curie Training Series BioMedMath organized by our consortium member Institute for Mathematics and Scientific Computing, University of Graz.

University of Banja Luka will host Intensive course in Financial mathematics in Month 9.

ECTS will apply to both Shkodra and Banja Luka intensive course.

As part of preparations for the first doctoral year, new library acquisitions will be realized between Month 9 and Month 12.

The Second Review and Plannning meeting of the Consortium Committee will take place in Skopje in Month 12.

Year Three: SEE DOCTORAL YEAR IN MATHEMATICAL SCIENCES 2011

The third project year will be the first year of implementation of harmonized, high quality, internationally oriented and networked doctoral programmes in mathematical sciences in South-East Europe. There will be organized six joint, intensive four-week courses, designed on recommendations of the Academic Board that have been based on the analysis of the state of the art in mathematical research in South-East Europe.

Pure mathematics 1 (Belgrade, Month 2)

Applied mathematics 1 (Tuzla, Month 3)

Theoretical computer science 1 (Skopje, Month 4)
Pure mathematics 2 (Sarajevo, Month 8)
Applied mathematics 2 (Podgorica, Month 9)
Theoretical computer science 2 (Sofia, Month 10)

These courses will provide a firm starting core knowledge background for PhD students aiming at doctoral research in a discipline/subdiscipline falling within one of these three global areas. (The course titles at the moment of application are generic ones and will receive the precise form and content during the second year of the project through the processes described above.) They will establish transparency of expectations and set quality and assesment standards to be followed.

Any particular course will be a combination of classes and seminar work. There will be 20 places for WB and 5 for EU doctoral students per course. In principle, every PhD student at WB partner institutions who starts his/her studies that year, will be expected to take one of these courses. In ECTS terminology, in case of institutions which use ECTS also at doctoral level, each of the courses will bear 30 points.

The lessons learned from the SEE Doctoral Year in Mathematical Sciences 2011, as the first phase of implementation of the new PhD curricula, will be analyzed at the final meeting of the Academic Board in 11th month.

As Salzburg principles point out, doctoral programmes should seek to achieve critical mass and doctoral candidates should have the opportunity to work in research teams and different research environments

The form - a joint program or a harmonized system of programmes - might well depend on circumstances beyond the control of consortium member institutions. However, the substance will tell that the project goal has been reached: the development of structured doctoral studies in mathematical sciences in South-East Europe up to the EHEA-ERA standards.

Strategy to upgrade the abilities of the present teaching staff at Western Balkans universities in meeting the challenges of the shift in methodology towards research-based education and student-centered learning will continue to be realized through the system of targeted short study visits from 1st to 11th month.

At the Final Review meeting in 12th month in Sarajevo, the Consortium Committee will analyze overall results of the project and the course of post TEMPUS funding actions recommended by the Sustainability plan.

III.3 PROJECT OBJECTIVES, OUTCOMES AND ACTIVITIES (LOGICAL FRAMEWORK MATRIX – LFM)

In order to plan and structure the project's objectives, outcomes and activities as thoroughly as possible, you are expected to complete an LFM (maximum of 2 pages), which represents a synthesis of the project. The LFM is a tool which provides an overview of the project and can assist in the design, planning, implementation and monitoring of a project. Please use the table provided further below.

Details provided in the table should complement the information previously explained in the project narrative (section III.2).

In addition to the project overview, which summarises the objectives and activities in the first column, you are requested to provide details on other aspects, such as indicators of progress, risks and assumptions.

Wider objective:

Give an indication of the medium / long-term aim to which the project is designed to contribute.

> ***Example****: To ensure that the targeted Partner Country university is in a position to offer education which is targeted towards the changing needs of the economic environment.*

Project-specific objectives:

State the specific objectives of the project. The specific objectives should indicate what is expected to have been achieved by the end of the project. The objective of your project should be "SMART": Specific, Measurable, Accurate, Realistic and Time-bound.

> ***Example****: To bring undergraduate curricula, teaching methods and library facilities at the Faculty of Economics of the University of xxx into line with the Bologna requirements by December xxx.*

Outcomes - Outputs:

The outcomes and outputs to be produced during the project implementation should be listed in concrete terms. They should be logically linked to each other *and*, once again, they should be specific, realistic in relation to the duration of the project and measurable in so far as this is possible. Producing all planned outcomes and outputs will mean that the project objectives have been attained as planned.

Assign reference numbers for each outcome and each output. These will be needed for the work plan (section III.4)

Outputs are tangible and outcomes are rather intangible.

> *An output (tangible) could be, for instance, newly developed teaching materials for the MSc degree in Management & Business.*

> *An outcome (intangible) could be, for example, all the experience gained in a project such as skills of management of trans-national partnerships, methods with which the final products were developed or methodologies used.*

Activities:

The achievement of an outcome/output implies the completion of a set of related activities. Indicate which activities are planned to achieve each outcome/output.

Assign subordinate reference numbers for each activity (see above). These will be needed for the work plan.

Inputs:

Inputs should be expressed in terms of the human resources, equipment, materials and travel considered necessary to perform the activities intended to produce the desired outcomes/outputs.

> ***Example****: Two librarians from D to UKR for 3 weeks (costs of stay and travel costs); 1 part-time secretary in the co-ordinating consortium member for 6 months (staff costs); 5 computers, 2 printers at beneficiary university (equipment).*

Inputs should be appropriate and sufficient to undertake the planned activities.

Indicators of progress:

These are the "sign-posts" that will be used to measure the performance of the project throughout its life-cycle. These preliminary indicators are likely to be reviewed or supplemented by more specific indicators once a project is operational.

Indicators should be specific in terms of quantity, quality, time and target group.

Indicators provide a basis for the monitoring of the project's progress and should therefore be considered as an ongoing evaluation mechanism within the project.

Assumptions and risks:

Please mention in this section any factors (that is, situations, events, conditions or decisions) which are necessary for the success of the project activities, outcomes or objectives, but which are not directly under the control of the partnership. You should see these as situations or events that you think might occur. The more these situations/events are beyond the control of the partnership the higher the risk which is posed to the project if they occur.

***Example**: That accreditation of the new curriculum might not be granted by the national authorities.*

For those identified risks, which are internal to the partnership, such as for example lack of EU language skills of partner country university staff, lack of interest from students, lack of time of university teaching staff, the partnership should foresee and indicate in the application means and activities to counter-act these risks.

III.3 LOGICAL FRAMEWORK MATRIX – LFM

Wider Objective: *What is the overall broader objective, to which the project will contribute?* • To enhance EHEA-ERA capacities of WB universities in mathematical sciences	**Indicators of progress:** *What are the key indicators related to the wider objective?* • Starting Bologna structured harmonized doctoral studies at WB universities (3rd year of JP) • active inter-university research groups formed	**How indicators will be measured:** *What are the sources of information on these indicators?* • Number of students enrolled in internationally networked doctoral studies • Number of scientific papers published in international peer-reviewed journals • Partnerships in FP7 projects	
Specific Project Objective/s: *What are the specific objectives, which the project shall achieve?* To develop structured doctoral studies in math. sciences through networking WB universities in a way that overcomes fragmentation and foster the reciprocal development of human resources in accordance with EHEA-ERA goals • To strengthen master programs in math. modeling and financial mathematics • To upgrade laboratories for applied mathematics at consortium members in Western Balkans countries	**Indicators of progress:** *What are the quantitative and qualitative indicators showing whether and to what extent the project's specific objectives are achieved?* • WB university network formed (6th month 1st year) • Harmonized PhD curricula adopted (6th month 2nd year) • Harmonized PhD curricula institutionally approved (Month 10, Y 2) • Modules in Math. model. and Financial math. institutionally approved (M12, Y1) • Laboratory upgrades for applied math. become operational (6th month 2nd year)	**How indicators will be measured:** *What are the sources of information that exist and can be collected? What are the methods required to get this information?* • Final Conclusions of the Workshop on PhD structure • Document of the Workshop on instit. approval of Harmonized PhD Curricula • Number of new course syllabi developed • Decisions of partner universities senates • Approvals by academic bodies at partner universities • Success of pilot cases in Mathematical modelling and Financial mathematics	**Assumptions & risks:** *What are the factors and conditions not under the direct control of the project, which are necessary to achieve these objectives? What risks have to be considered?* • Political and economical stability in the region • Compatibility of higher education legislation in WB countries with EU integrative policies • public awareness about importance of R&D • Increased demand for highly qualified researchers
Outputs (tangible) and Outcomes (intangible): *Please provide the list of concrete outputs/outcomes leading to the specific objective/s, using bullet points, considering the following questions for their definition:* *What are the envisaged quantifiable and non-quantifiable effects and benefits of the project?* *What improvements and changes will be produced by the project?* • Development of a model of structured doctoral studies in Mathematical Sciences involving the network of WB universities • Doctoral curricula design in the areas of Pure Math, Applied Math and Theor Comp Sci and 1st phase of implement. • Strategy to train the next generation of math professors at WB univ for research-	**Indicators of progress:** *What are the indicators to measure whether and to what extent the project achieves the envisaged results and effects?* • new PhD structure adopted at partner universities (10th month 1st year) • Curricula designed (Y2, Month 2) • Syllabi designed (Y2, Month 6) • SEE Doctoral Year 2011 • Innovations introduced after study visits and short stays • Improvements in curricula and teaching methodology • IT experts retrained and IT equipment procured (Y1, M12) • Library stock and services improved (Y2, M12)	**How indicators will be measured:** *What are the sources of information on these indicators?* • Reports from partner universities • Academic Board reports • Final documents from Workshops • Dynamic websites feedback • Student evaluations • Self evaluation reports by each group of key actors for achieving the respective outcome	**Assumptions & risks:** *What external factors and conditions must be realised to obtain the expected outcomes and results on schedule?* • Support of ministries and accreditation agencies • Mutual recognition of former qualifications • ECTS and 3rd cycle developments and relations • Involvement of stakeholders and employers

based education &student-centered learn. • Strengthening master programs: learning outcomes and labor market/link to 3rd cycle dichotomy: pilot cases in Math modeling & Financial mathematics • Improvement of IT and library facilities • Effective and efficient management of the JP, dissemination, sustainability, quality control and monitoring	•		
Activities: *What are the key activities to be carried out and in what sequence in order to produce the expected results?* • Workshop on PhD structure • Workshop on PhD core subjects and QA • PhD Curricula design • IT training • Modules in Mathematical modeling and Financial mathematics • PhD Syllabi design • Workshop on harmonized PhD programs • Activities on institutional approval of harmonized PhD curricula • Activities on dissemination • Six intensive PhD courses in Pure & Appl. Math. & Theor. Computer Science • Academic Board meetings, quality control and monitoring • Menagment of the JP and Consortium Committee meetings	**Inputs:** *What inputs are required to implement these activities, e.g. staff time, equipment, mobilities, publications etc.?* • 16 WB-EU,2 EU-EU,7 EU-WB, 9 WB-WB mob.,15 d. EU,28 d. WB adm. st.time • 7 WB-EU, 1 EU-EU, 17 WB-WB, 9 EU-WB mob.,8 d. EU,45 d. WB adm. st. time • 16 days 7 WB academic staff time, 5 WB-EU, 3 EU-WB, 8 WB-WB mobilities • 10 WB-EU mobilities, 5 days x 2 EU technical , 5 EU administrative staff costs • 40 WB, 10 EU student mob., 2 WB + 4 EU 20 d. acad. st. time, 7 video p., 20 PC, 4 laptops, 2 print., 1 overhead proj. • 24 d 7 WB ac.st.t, 6 WB -EU, 6 EU-WB, 8 WB-WB mob., 28 d WB, 6 d EU adm. • 6 EU-WB, 9 WB-WB, 8 WB-EU mob. • 45 days 7 WB acad. st. time, booklets • 150 d. 7 WB tech. st. time (dynamic web site), 35 EU-WB student mob. • 100 WB-WB, 20 WB-EU stud mob., 20 d. x 7 WB+11 EU acad. st. time,5 video proj., 56 PC, 10 laptops, 4 print., software, Enclosur, UPS, 5 servers,3 switches, Rack • 40d.x6 WB + 4 EU ac. staff time 2EU-EU,7 WB-EU,14 WB-WB,4 EU-WB mob. • 12 EU-WB,28 WB-WB mob.,108 days x 7WB+3EU manag. st. tim,1 part-t. BA ad. st. x 3 years, 288 d. BA manag. st. time		**Assumptions, risks and pre-conditions:** *What pre-conditions are required before the project starts? What conditions outside the project's direct control have to be present for the implementation of the planned activities?* Readiness of all partner universities to adopt harmonized PhD program and curricula • Status of doctoral students (candidates) / early stage researchers • Staff and student foreign language proficiency • Staff at all faculties willing to accept new IT platform •

III.4 WORKPLAN

Please use the model provided. Applicants are expected to complete a one-page work plan for each project year.
For each year of your project proposal, please complete a work plan indicating the deadlines for each outcome and the period and location in which your activities will take place. Please create additional work plan tables if further space is needed.
The same reference and sub-reference numbers as used in the logical framework matrix must be assigned to each outcome and related activities.
M1 = first month of the project year; 12 M = 1 year; 4 weeks = 1 M. Please use one symbol (= / X) to represent one week.

WORKPLAN for the first project year

Activities		M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
Ref. N° /Sub Ref. N°	Title												
I.	Development of a model of structured doctoral studies in Mathematical Sciences involving the network of Western Balkan universities	**0**									**0**		
I. 1.	Assesment of existing practice of obtaining doctoral degrees in Mathematical Sciences at partner universities	**0**									**0**		
I. 1. 1.	Study visits from WB universities to EU partner countries		**0=**		**=**	**=**	**=**				**=0**		
I. 1. 2.	Study visits from EU partners to WB universities			**0X**	**X**	**X**					**X0**		
I. 1. 3.	Study visits from WB universities to WB universities			**0X**	**X**	**X**	**X**			**X0**			
I. 2.	Design of a PhD structure					**0**					**0**		
I. 2. 1.	Workshop on PhD structure						**0=0**						
I. 2. 2.	Young researchers' workshop									**0X0**			
II.	Doctoral curricula design in areas of Pure Mathematics, Applied Mathematics and Theoretical Computer Science and the first phase of implementation					**0**							
II. 1.	PhD curricula design					**0**							
II. 1. 1.	Study visits from WB universities to EU partner countries					**0=**				**=**		**=**	**=0**
II. 1. 2.	Study visits from EU partners to WB universities					**0X**				**X**	**X**	**X0**	
II. 1. 3.	Study visits from WB universities to WB universities					**0X**	**X**				**X**	**X**	**X0**
II. 1. 4.	Study visits from EU partner to EU partner									**0=0**			
II. 1. 5.	Workshop on core subjects and quality assurance											**0X0**	
II. 1. 6.	Academic work at WB partner institutions on harmonized PhD curricula and syllabi											**0**	
IV.	Strengthening master programs from the standpoint of learning outcomes and labour market/link to the third cycle dichotomy: pilot cases in Mathematical Modelling and Financial Mathematics	**0**											

IV.1.	Assesment of needs and abilities of partner universities and design of modules in Mathematical Modelling and Financial Mathematics	**0**								**0**			
IV. 1. 1.	Study visits from WB universities to EU partner countries			**0=**		**=**				**=0**			
IV. 1. 2.	Study visits from EU partners to WB universities			**0X**		**X0**							
IV. 1. 3.	Study visits from WB universities to WB universities					**0X**				**X0**			
IV. 1. 4.	Workshop on Scientific and Labor market oriented goals: Mathematical modelling and Financial Mathematics										**0X0**		
V.	Improvement of IT and library facilities									**0**			
V.1.	Training in use of IT in mathematical modelling									**0=0**			
V.2.	Procurement of IT equipment									**0**			**0**
VI.	Effective and efficient management of the JP, dissemination sustainability, quality control and monitoring												
VI. 1.	Management of the JP	**0**											
VI.1.1.	Consortium Committee initial meeting	**0X0**											
VI.1. 2.	Consortium Committee First Review and Planning meeting												**0X0**
VI.2.	Activities on dissemination	**0**											
VI.2.1.	Creation and maintenance of dynamic web sites at partner universities						**0**						**0**
VI. 2. 2.	PR of the JP	**0**											
VI. 2. 3.	Presentation of the JP at MICOM									**0X0**			
VI.3.	Activities on sustainability	**0**											
VI. 3. 1.	Institutional approval of modules in Mathematical Modelling and Financial Mathematics										**0**		**0**
VI. 3. 2.	Contacts with Rectorates, national Acreditation agencies and Ministries of Education										**0**		
VI.4.	Quality control and monitoring	**0**											
VI. 4. 1.	Establishment of the Academic Board						**0=0**						
VI. 4. 2.	Academic Board meeting on core knowledge and evaluation of Young Researchers' Workshop outputs										**0=0**		

Starting and end date of Outcome: **O**
Activity carried out in the EU/Candidate Country: **=**
Activity carried out in the Partner Country (ies): **X**

WORKPLAN for the second project year

Activities													
Ref. N° /Sub Ref. N°	Title	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
II.	Doctoral curricula design in areas of Pure Mathematics, Applied Mathematics and Theoretical Computer Science and the first phase of implementation												
II. 1.	PhD curricula design												**0**
II. 1. 1.	Study visits from WB universities to EU partner countries		**0=**							**=0**			
II. 1. 2.													
II. 1. 3.	Study visits from WB universities to WB universities			**0X**		**X0**							
II. 1. 6.	Academic work at WB partner institutions on harmonized PhD curricula and syllabi									**0**			
III.	Strategy to train the next generation of mathematics professors at Western Balkans universities for the research based education and student centered learning	**0**											
III. 1.	One month study visits of researchers from WB universities to EU countries	**0 ====**	**====**							**==== 0**			
III. 2.	Two weeks study visits from WB universities to EU	**0 ==**	**==**			**==**					**==0**		
III. 3.	Two weeks study visits from EU partners to WB countries		**0XX**			**XX0**							
III. 4.	Two weeks study visits from WB universities to WB universities	**0XX**			**XX**	**XX**					**XX0**		
IV.	Strengthening master programs from the standpoint of learning outcomes and labour market/link to the third cycle dichotomy: pilot cases in Mathematical Modelling and Financial Mathematics												**0**
IV.2.	Research-based education and student centered learning: Mathematical Modelling and Financial Mathematics			**0**									**0**
IV. 2. 1.	Intensive course and lab in Mathematical Modelling					**0XX XX0**							
IV. 2. 2.	Intensive course in Financial Mathematics									**0XX XX0**			
V.	Improvement of IT and library facilities									**0**			
V. 3.	Upgrading departmental libraries at WB universities									**0**			**0**
VI.	Effective and efficient management of the JP, dissemination sustainability, quality control and monitoring												
VI. 1.	Management of the JP												
VI.1.3.	Consortium Committee Second Review and Planning meeting												**0X0**

VI.2.	Activities on dissemination												
VI.2.1.	Maintenance of dynamic web sites at partner universities												
VI. 2. 2.	PR of the JP												
VI. 2. 4.	Participation of EU students in Mathematical Modelling and Financial Mathematics modules					**0XX XX0**				**0XX XX0**			
VI. 2. 5.	Synergy with Marie Curie BioMedMath Network								**0=0**				
VI.3.	Activities on sustainability												
VI. 3. 2.	Contacts with Rectorates, national Acreditation agencies and Ministries of Education												
VI. 3. 3.	Workshop on harmonized PhD programs						**0X0**						
VI. 3. 4.	Institutional approval of PhD curricula in PM, AM and TCS at partner universities						**0**				**0**		
VI.4.	Quality control and monitoring												
VI. 4. 3.	Academic Board meeting on program monitoring and core subjects syllabi			**0X0**									
VI. 4. 4.	One day round table on PhD structure and curricula at WB universities				**0X0**								

Academic Board meeting on monitoring and core subjects syllabi
Starting and end date of Outcome: **O**
Activity carried out in the EU/Candidate Country: **=**
Activity carried out in the Partner Country (ies): **X**

WORKPLAN for the third project year

Activities		**M1**	**M2**	**M3**	**M4**	**M5**	**M6**	**M7**	**M8**	**M9**	**M10**	**M11**	**M12**
Ref. N° /Sub Ref. N°	Title												
II.	Doctoral curricula design in areas of Pure Mathematics, Applied Mathematics and Theoretical Computer Science and the first phase of implementation												**0**
II. 2.	The first phase of implementation of PhD programme SEE Doctoral Year 2011	**0**											**0**
II. 2. 1.	Pure Mathematics 1 intensive course		**0XX XX0**										
II. 2. 2.	Applied Mathematics 1 intensive course			**0XX XX0**									
II. 2. 3.	Theoretical Computer Science 1 intensiive course				**0XX XX0**								
II. 2. 4.	Pure Mathematics 2 intensive course								**0XX XX0**				

II. 2. 5.	Applied Mathematics 2 intensive course									**0XX XX0**			
II. 2. 6.	Theoretical Computer Science 2 intensiive course										**0XX XX0**		
III.	Strategy to train the next generation of mathematics professors at Western Balkans universities for the research based education and student centered learning												**0**
III. 5.	Short study visits from WB universities to EU partner countries	**0=**				**=**						**=0**	
III. 6.	Short study visits from EU partners to WB universities			**0X**				**X**			**X0**		
III. 7.	Short study visits from WB universities to WB universities	**0X**		**X**		**X**						**X0**	
VI.	Effective and efficient management of the JP, dissemination sustainability, quality control and monitoring												
VI. 1.	Management of the JP												**0**
VI. 1. 4.	Consortium Committee Final Review meeting												**0X0**
VI.2.	Activities on dissemination												**0**
VI.2.1.	Maintenance of dynamic web sites at partner universities												**0**
VI. 2. 2.	PR of the JP												**0**
VI. 2. 6.	Participation of EU students in PhD modules in PM		**0XX XX0**						**0XX XX0**				
VI. 2. 7.	Participation of EU students in PhD modules in AM			**0XX XX0**						**0XX XX0**			
VI. 2. 8.	Participation of EU students in PhD modules in TCS				**0XX XX0**						**0XX XX0**		
VI.3.	Activities on sustainability												0
VI. 3. 2.	Contacts with Rectorates, national Acreditation agencies and Ministries of Education			**0**									
VI.4.	Quality control and monitoring												**0**
VI. 4. 5.	Academic Board Final meeting										**0X0**		

Starting and end date of Outcome: **O**
Activity carried out in the EU/Candidate Country: **=**
Activity carried out in the Partner Country (ies): **X**

III.5 OUTCOME & ACTIVITY TABLES

The outcome tables enable you to give precise details on each expected outcome and the related activities. You should also provide details on the resources needed for each outcome. Please create additional tables if further space is needed.
The following types of information will be required:

- Please fill in the same title and reference number for each outcome as provided in the Logical Framework Matrix.
- Please include assumptions and risks for each outcome where relevant.
- Please provide a representative title for each activity together with a sub-reference number, starting and ending date.
- An adequate description of each activity; what will be done, when, where and how.
- The partner/s or experts who will carry out an activity should be stated, specifying which staff from which of the partners will be responsible for and carry out each single activity (e.g.: Senior administrative staff from university A; the rectorate of university B; finance officers from institution C; quality control staff from institution D, etc.). It is not sufficient to merely list some (or all) partners.
- For each activity a target group must be clearly identified. A target group is composed of the direct beneficiaries of the activity and could typically include one or more of the following: Academic staff of a given department, university administrative staff, students, trainees participating in a training course, etc. Please quantify your target group and state precisely who they are and where they are located (e.g.: 5 librarians of university A; 20 secondary school teachers, 25 students from the institutions B, C and D; 10 administrators at the Ministry of Education; etc.). This is particularly important for projects in which several Partner Country institutions are involved.
- All the resources (financial, human, material) needed to execute an activity must be described in the "Input" row. The information provided should be specified and itemised. For staff costs please provide information on the type of staff , where they come from and what the hourly rates are (e.g.: x academic staff from EU institution A multiplied by x hours multiplied by x Euro). In case of staff and student mobilities, you must indicate the number of people, the direction and duration of each of the mobilities (e.g.: 5 PC staff to EU institution A for B number of weeks). For equipment, you should quantify and describe the equipment needed for each activity (e.g.: 15 computers and 1 network printer).
- For each outcome you should indicate the types of expenditures that will be necessary by filling in the "related costs" table at the end of this section. You should not duplicate expenditure under more than one outcome, as the sum of the total budget required for each outcome should correspond to the totals indicated in Section V, Table 8, 'Summary of project funding requirements'.
- Overheads should be accounted for only once, under the outcomes and activities table for 'Management of the Project'.
- For Dissemination and Sustainability, Quality Control and Monitoring, and Management of the Project, you must also provide a description of the strategy you will adopt

OUTCOME/OUTPUT AND ACTIVITY TABLES – FIRST YEAR

Outcome/output title:	Development of a model of structured doctoral studies in Mathematical Sciences involving the network of Western Balkan universities	*Ref. N°:*	**1.**
Starting date:	Month 1 of the 1st year	*End date:*	Month 10 of the 1st year
Related Assumptions and risks:	Institutional support from partner Universities No risks		

Outcome/output title:	Assesment of existing practice of obtaining doctoral degrees in Mathematical Sciences at partner universities	*Ref. N°:*	**I.1.**
Starting date:	Month 1 of the 1st year	*End date:*	Month 10 of the 1st year
Related Assumptions and risks:	Institutional support from partner Universities No risks		

Activity title:	Study visits from WB universities to EU partner countries	*Sub Ref. N°:*	*I.1.1.*
Starting date:	Month 2of the 1st year	*End date:*	Month 10 of the 1st year
Description of the activity:	Individual six days study visits from WB universities experts to partner institutions in EU in order to gain new expirience concerning EU model of doctoral studies		
The consortium member/s or experts who will carry out the activity:	Professors and experts from the WB universities, total number of 5.		
Target group/s:	Academic staff of WB universities		
Inputs:	Five visits from WB to EU (6 days stay and travel costs) - 5600 Administrative staff costs (5 days x 100) - 500 Total 6100		

Activity title:	Study visits from EU partner countries to WB universities	*Sub Ref. N°:*	*I.1.2.*
Starting date:	Month 3 of the 1st year	*End date:*	Month 10 of the 1st year
Description of the activity:	Individual seven days study visits of EU experts to partner institutions in WB in order to asses the existing practice in obtaining doctoral degrees at WB partner universities.		
The consortium member/s or experts who will carry out the activity:	Experts from EU institutions		
Target group/s:	Academic staff and PhD students of WB universities		
Inputs:	Four visits from EU to WB universities (6 days stay and travel costs) - 3520 Administrative staff costs (8 days x 40) – 320 Total 3840		

Activity title:	Study visits from WB universities to WB universities		*Sub Ref. N°:*	*I.1.3.*
Starting date:	Month 3 of the 1st year	*End date:*	Month 9 of the 1st year	
Description of the activity:	Individual six days study visits of experts from WB universities to their colleagues in other WB universities in order to harmonize activities and analyse needs and abilities			
The consortium member/s or experts who will carry out the activity:	Professors and experts from WB universities, total number of 5.			
Target group/s:	Academic staff and PhD students of WB universities			
Inputs:	Five visits to WB universities (6 days stay and travel costs) - 3100 Administrative staff costs (10 days x 40) – 400 Total 3500			

Outcome/output title:	Design of a PhD structure		*Ref. N°:*	**I.2.**
Starting date:	Month 5 of the 1st year	*End date:*	Month 10 of the 1st year	
Related Assumptions and risks:	Institutional support from partner Universities No risks			

Activity title:	Workshop on PhD structure		*Sub Ref. N°:*	**I.2.1**
Starting date:	Month 6 of the 1st year	*End date:*	Month 6 of the 1st year	
Description of the activity:	Workshop in Graz on a structure of a joint PhD program of partner universities in Pure Mathematics, Applied Mathematics and Theoretical Computer. Developing a structure of master studies in Mathematical Modelling for WB countries.			
The consortium member/s or experts who will carry out the activity:	Experts from partner universities, total number of 12 experts			
Target group/s:	Academic staff and PhD students of WB universities			
Inputs:	Two experts from EU to Graz for 5 days (stay and travel costs) – 2000 Nine experts from WB countries to Graz for 5 days (stay and travel costs) – 8100 Printing, publishing and PR costs – 400 Administrative staff costs – 1500 (15 days x 100) Total: 12000			

Activity title:	Young researchers workshop		*Sub Ref. N°:*	**I.2.2.**
Starting date:	Month 9 of the 1st year	*End date:*	Month 9 of the 1st year	
Description of the activity:	Four-days workshop in Ohrid on evaluation and self-evaluation of young researchers from WB universities.			

The consortium member/s or experts who will carry out the activity:	MASSEE and Experts from WB universities, total number of 9 experts Experts from EU universities, total number of 5 experts Students from WB universities, total number of 25 students Students from EU partners, total number of 5 students
Target group/s:	PhD students of WB universities and EU partners and young researchers from partner universities
Inputs:	Nine experts from WB universities to Ohrid for 4 days (stay and travel costs) - 7344 (self-financing) Three experts from EU to Ohrid for 4 days (stay and travel costs) – 2140 Students (25) from WB to Ohrid (stay and travel costs) - 6350 Students (5) from EU to Ohrid (stay and travel costs) - 2070 Printing, publishing and PR costs – 3000 Administrative staff costs (15 days x 47) – 705 EU teaching staff costs (3 days x (255 x 2 + 56 x 1))– 1698 Total: 23307

Outcome/output title:	Doctoral curricula design in areas of Pure Mathematics, Applied Mathematics and Theoretical Computer Science and the first phase of implementation		*Ref. N°:*	**II.**
Starting date:	Month 5 of the 1st year	*End date:*	Month 12 of the 3rd year	
Related Assumptions and risks:	Institutional support from partner Universities Support of legal authorities No risks			

Outcome/output title:	PhD curricula design		*Ref. N°:*	**II.1.**
Starting date:	Month 5 of the 1st year	*End date:*	Month 12 of the 2nd year	
Related Assumptions and risks:	Institutional support from partner Universities Support of legal authorities No risks			

Activity title:	Study visits from WB universities to EU partner countries		*Sub Ref. N°:*	*II.1.1*
Starting date:	Month 5 of the 1st year	*End date:*	Month 12 of the 1st year	
Description of the activity:	Individual six days study visits from WB universities experts engaged in curricula development to partner institutions in EU			
The consortium member/s or experts who will carry out the activity:	Professors and experts from the WB universities, total number of 4.			
Target group/s:	Academic staff of WB universities			

Inputs:	Four visits from WB to EU (6 days stay and travel costs) - 4480 Administrative staff costs (4 days x 100) - 400 Total 4880

Activity title:	Study visits from EU partner countries to WB universities	*Sub Ref. N°:*	*II.1.2*
Starting date:	Month 5 of the 1st year	*End date:*	Month 11 of the 1st year
Description of the activity:	Individual seven days study visits of EU experts to partner institutions in WB on doctoral curricula design.		
The consortium member/s or experts who will carry out the activity:	Experts from EU institutions		
Target group/s:	Academic staff and PhD students of WB universities		
Inputs:	Four visits from EU to WB universities (6 days stay and travel costs) - 3520 Administrative staff costs (8 days x 40) – 320 Total 3840		

Activity title:	Study visits from WB universities to WB universities	*Sub Ref. N°:*	*II.1.3*
Starting date:	Month 5 of the 1st year	*End date:*	Month 12 of the 1st year
Description of the activity:	Individual 6 days study visits of experts from WB universities to their colleagues in other WB universities in order to harmonize activities and analyse needs and abilities		
The consortium member/s or experts who will carry out the activity:	Professors and experts from WB universities, total number of 5.		
Target group/s:	Academic staff and PhD students of WB universities		
Inputs:	Five visits to WB universities (6 days stay and travel costs) - 3100 Administrative staff costs (10 days x 40) – 400 Total 3500		

Activity title:	Study visits from EU partner to EU partner	*Sub Ref. N°:*	*II.1.4*
Starting date:	Month 9 of the 1st year	*End date:*	Month 9 of the 1st year
Description of the activity:	Individual 6 days study visit of expert from Sofia to Graz		
The consortium member/s or experts who will carry out the activity:	One expert from the University of Graz		
Target group/s:	Universities of Sofia and Graz		
Inputs:	One 6 days visit to Graz (stay and travel costs) - 1120 Administrative staff costs (1 day x 100) – 100 Total 1220		

Activity title:	Workshop on core subjects and quality assurance	*Sub Ref. N°:*	**II.1.5**
Starting date:	Month 11 of the 1st year	*End date:*	Month 11 of the 1st year
Description of the activity:	Workshop in Tuzla on a core development for the harmonized PhD program of partner universities in Pure Mathematics, Applied Mathematics and Theoretical Computer Science.		
The consortium member/s or experts who will carry out the activity:	Experts from partner universities, total number of 12 experts		
Target group/s:	Academic staff and PhD students of WB universities		
Inputs:	Three experts from EU to Tuzla for 5 days (stay and travel costs) – 2400 Eight experts from WB countries to Tuzla for 5 days (stay and travel costs) – 4400 Printing, publishing and PR costs – 200 Administrative staff costs (10 days x 35) – 350 Total: 7350		

Activity title:	Academic work at WB partner institutions on harmonized PhD curricula and syllabi	*Sub Ref. N°:*	**II.1.6**
Starting date:	Month 11 of the 1st year	*End date:*	Month 9 of the 2nd year
Description of the activity:	Academic work at WB partner institutions on harmonized PhD curricula from November of the 1st year to March of the 2nd year and academic wotk on syllabi from April of the 2nd year to September 2nd year		
The consortium member/s or experts who will carry out the activity:	Experts from WB partner universities, total number of 7 experts		
Target group/s:	Academic staff and PhD students of WB universities		
Inputs:	Costs of the academic work for the harmonized PhD program November 1st year – December 1st year (8 days) 8 x (40 (AL) + 64x3 (BA) + 40(RS) + 70 (ME) + 70 (MK))- 3296		

Outcome/output title:	Strengthening master programs from the standpoint of learning outcomes and labour market/link to the third cycle dichotomy: pilot cases in Mathematical Modelling and Financial Mathematics	*Ref. N°:*	**IV.**
Starting date:	Month 1 of the 1st year	*End date:*	Month 12 of the 2nd year
Related Assumptions and risks:	Institutional support from partner Universities Support of legal authorities No risks		

Outcome/output title:	Assesment of needs and abilities of partner universities and design of modules in Mathematical Modelling and Financial Mathematics	*Ref. N°:*	**IV. 1**
Starting date:	Month 1 of the 1st year	*End date:*	Month 9 of the 1st year
Related Assumptions and risks:	Institutional support from partner Universities No risks		

Activity title:	Study visits from WB universities to EU partner countries	*Sub Ref. N°:*	*IV.1.1.*
Starting date:	Month 3 of the 1st year	*End date:*	Month 9 of the 1st year
Description of the activity:	Individual 6 days study visits from WB universities experts engaged in development of MSc programme in Mathematical Modelling and Financial Mathematics to partner institutions in EU		
The consortium member/s or experts who will carry out the activity:	Professors and experts from the WB universities, total number of 3.		
Target group/s:	Academic staff of WB universities		
Inputs:	Three visits from WB to EU (6 days stay and travel costs) - 3360 Administrative staff costs (3 days x 100) - 300 Total 3660		

Activity title:	Study visits from EU partner countries to WB universities	*Sub Ref. N°:*	*IV.1.2*
Starting date:	Month 3 of the 1st year	*End date:*	Month 5 of the 1st year
Description of the activity:	Individual 6 days study visits of EU experts to partner institutions in WB on MSc curricula in Mathematical Modelling and Financial Mathematics design.		
The consortium member/s or experts who will carry out the activity:	Experts from EU institutions, total number of 2.		
Target group/s:	Academic staff and PhD students of WB universities		
Inputs:	Two visits from EU to WB universities (6 days stay and travel costs) - 1760 Administrative staff costs (4 days x 40) – 160 Total 1920		

Activity title:	Study visits from WB universities to WB universities	*Sub Ref. N°:*	*IV.1.3.*
Starting date:	Month 5 of the 1st year	*End date:*	Month 9 of the 1st year
Description of the activity:	Individual 6 days study visits of experts from WB universities other WB universities in order to analyse needs and abilities for MSc programme.		
The consortium member/s or experts who will carry out the activity:	Professors and experts from WB universities, total number of 2.		

Target group/s:	Academic staff and PhD students of WB universities
Inputs:	Two visits to WB universities (6 days stay and travel costs) - 1240 Administrative staff costs (4 days x 40) – 160 Total 1400

Activity title:	Workshop on Scientific and Labor market oriented goals: Mathematical modelling and Financial Mathematics		*Sub Ref. N°:*	**IV.1.4.**
Starting date:	Month 10 of the 1st year	*End date:*	Month 10 of the 1st year	
Description of the activity:	Workshop in Podgorica on learning outcomes of master studies in Mathematical modelling and prospects for doctoral education in the field			
The consortium member/s or experts who will carry out the activity:	Experts from partner universities, total number of 11 experts			
Target group/s:	Academic staff and graduate students of WB universities			
Inputs:	Three experts from EU to Podgorica for 5 days (stay and travel costs) – 2400 Seven experts from WB countries to Podgorica for 5 days (stay and travel costs) – 4200 Printing, publishing and PR costs – 400 Administrative staff costs – 400 (10 days x 40) Total: 7400			

Outcome/output title:	Improvement of IT and library facilities		*Ref. N°:*	**V.**
Starting date:	Month 9 of the 1st year	*End date:*	Month 12 of the 2nd year	
Related Assumptions and risks:	Institutional support from partner Universities No risks			

Activity title:	Training in use of IT in mathematical modelling		*Sub Ref. N°:*	**V.1.**
Starting date:	Month 9 of the 1st year	*End date:*	Month 9 of the 1st year	
Description of the activity:	Training of young experts in Graz in use of IT in mathematical modelling.			
The consortium member/s or experts who will carry out the activity:	Computer lab experts and technical staff from EU and WB partners, total number of 10 experts and 2 trainers.			
Target group/s:	Academic staff, technical staff and graduate students of WB universities			

Inputs:	Ten experts from WB to Graz (1 week stay and travel costs) – 11000 Cost of two trainers – 2 x 250 x 5 days - 2500 Administrative staff costs – (5 days x 100) - 500 Total: 14000

Activity title:	Procurement of IT equipment	*Sub Ref. N°:*	*V.2.*
Starting date:	Month 9 of the 1st year	*End date:*	Month 12 of the 1st year
Description of the activity:	Legal actvitivies concerning procurement of equipment for WB universities		
The consortium member/s or experts who will carry out the activity:	Administrative and technical staff from WB universities		
Target group/s:	WB universities		
Inputs:	Administrative staff costs (20 days x 40) – 800 Technical staff costs (20 days x 40) – 800 Total 1600		

RELATED COSTS (for the outcome/output described above)	
Budget Heading	***Related Costs in €***
Staff Costs	15609
Cost of Stay, Travel Costs, Institutional Costs	83204
Equipment Costs	0
Printing and Publishing Costs	4000
Other Costs	1250
Total Costs	**104063**

OUTCOME/OUTPUT AND ACTIVITY TABLES – SECOND YEAR

Outcome/output title:	Doctoral curricula design in areas of Pure Mathematics, Applied Mathematics and Theoretical Computer Science and the first phase of implementation	*Ref. N°:*	**II.**
Starting date:	Month 5 of the 1st year	*End date:*	Month 12 of the 3rd year
Related Assumptions and risks:	Institutional support from partner Universities Support of legal authorities No risks		

Outcome/output title:	PhD curricula design	*Ref. N°:*	**II.1.**
Starting date:	Month 5 of the 1st year	*End date:*	Month 12 of the 2nd year
Related Assumptions and risks:	Institutional support from partner Universities Support of legal authorities No risks		

Activity title:	Study visits from WB universities to EU partner countries	*Sub Ref. N°:*	*II.1.1*
Starting date:	Month 2 of the 2nd year	*End date:*	Month 9 of the 2nd year
Description of the activity:	Individual six days study visits from WB universities experts engaged in curricula development to partner institutions in EU		
The consortium member/s or experts who will carry out the activity:	Professors and experts from the WB universities, total number of 2.		
Target group/s:	Academic staff of WB universities		
Inputs:	Two visits from WB to EU (six days stay and travel costs) - 2240 Administrative staff costs (2 days x 100) - 200 Total 2440		

Activity title:	Study visits from EU partner countries to WB universities	*Sub Ref. N°:*	*II.1.2*
Starting date:	Month 2 of the 2nd year	*End date:*	Month 9 of the 2nd year
Description of the activity:	Individual six days study visits of EU experts to partner institutions in WB on doctoral curricula design.		
The consortium member/s or experts who will carry out the activity:	Experts from EU institutions, total number of 0		
Target group/s:	Academic staff and PhD students of WB universities		

Inputs:	0 visits from EU to WB universities (one week stay and travel costs) - 0 Administrative staff costs ( ) – Total 0

Activity title:	Study visits from WB universities to WB universities		*Sub Ref. N°:*	*II.1.3*
Starting date:	Month 3 of the 2nd year	*End date:*	Month 5 of the 2nd year	
Description of the activity:	Individual seven days study visits of experts from WB universities to their colleagues in other WB universities in order to harmonize activities and analyse needs and abilities			
The consortium member/s or experts who will carry out the activity:	Professors and experts from WB universities, total number of 2.			
Target group/s:	Academic staff and PhD students of WB universities			
Inputs:	Two visits from WB universities to WB universities (six days stay and travel costs) - 1240 Administrative staff costs (4 days x 40) – 160 Total 1400			

Activity title:	Academic work at WB partner institutions on harmonized PhD curricula and syllabi		*Sub Ref. N°:*	**II.1.6**
Starting date:	Month 11 of the 1st year	*End date:*	Month 9 of the 2nd year	
Description of the activity:	Academic work at WB partner institutions on harmonized PhD curricula from November of the 1st year to March of the 2nd year and academic wotk on syllabi from April of the 2nd year to September 2nd year			
The consortium member/s or experts who will carry out the activity:	Experts from WB partner universities, total number of 7 experts			
Target group/s:	Academic staff and PhD students of WB universities			
Inputs:	Costs of the academic work for the harmonized PhD program January 2nd year – September 2nd year (40 days) 40 x (40 (AL) + 64x3 (BA) + 40(RS) + 70 (ME) + 70 (MK))- 16480			

Outcome/output title:	Strategy to train the next generation of mathematics professors at Western Balkans universities for the research based education and student centered learning		*Ref. N°:*	**III.**
Starting date:	Month 1 of the 2nd year	*End date:*	Month 12 of the 2nd year	
Related Assumptions and risks:	Institutional support from partner Universities Support of legal authorities No risks			

Activity title:	Three weeks study visits of researchers from WB universities to EU countries	*Sub Ref. N°:*	*III.1.*
Starting date:	Month 1 of the 2nd year	*End date:*	Month 9 of the 2nd year
Description of the activity:	Individual 3 weeks research visits from young WB researchers to EU institutions		
The consortium member/s or experts who will carry out the activity:	Professors from the WB universities, total number of 3.		
Target group/s:	Academic staff of and graduate students of WB universities		
Inputs:	Three visits from WB to EU universities for 3 weeks (stay and travel costs) - 5700 Administrative staff costs (4 1/2 days x 100) - 450 Total 6150		

Activity title:	Ten days study visits from WB universities to EU countries	*Sub Ref. N°:*	*III.2.*
Starting date:	Month 1 of the 2nd year	*End date:*	Month 12 of the 2nd year
Description of the activity:	Individual 10 days study visits from young professors from WB in order to gain new experiences on research based education and student centered learning in EU partner institutions		
The consortium member/s or experts who will carry out the activity:	Young professors and from the WB universities, total number of 4.		
Target group/s:	Academic staff and students of WB universities		
Inputs:	Visits from WB to EU, total number of 4, for 10 days (stay and travel costs) - 5600 Administrative staff costs (6 days x 100) - 600 Total 6200		

Activity title:	Ten days study visits from EU partner countries to WB universities	*Sub Ref. N°:*	*III.3.*
Starting date:	Month 2 of the 2nd year	*End date:*	Month 5 of the 2nd year
Description of the activity:	Individual 10 days study visits of EU experts to partner institutions in WB		
The consortium member/s or experts who will carry out the activity:	Experts from EU institutions, total number of 2.		
Target group/s:	Academic staff and PhD students of WB universities		
Inputs:	Two 10 days visits to WB universities (stay and travel costs) - 2000 Administrative staff costs (4 days x 40) – 160 Total 2160		

Activity title:	Ten days study visits from WB universities to WB universities	*Sub Ref. N°:*	*III.4.*
Starting date:	Month 1 of the 2nd year	*End date:*	Month 10 of the 2nd year
Description of the activity:	Individual 10 days study visits of young professors and researchers from WB universities to their colleagues in other WB universities		
The consortium member/s or experts who will carry out the activity:	Professors and researchers from WB universities, total number of 4.		
Target group/s:	Academic staff and PhD students of WB universities		
Inputs:	Four 10 days visits to WB universities (stay and travel costs) - 3200 Administrative staff costs (8 days x 40) – 320 Total 3520		

Outcome/output title:	Strengthening master programs from the standpoint of learning outcomes and labour market/link to the third cycle dichotomy: pilot cases in Mathematical Modelling and Financial Mathematics	*Ref. N°:*	**IV.**
Starting date:	Month 1 of the 1st year	*End date:*	Month 12 of the 2nd year
Related Assumptions and risks:	Institutional support from partner Universities Support of legal authorities No risks		

Outcome/output title:	Research-based education and student centered learning: Mathematical Modelling and Financial Mathematics	*Ref. N°:*	**IV.2.**
Starting date:	Month 3 of the 2nd year	*End date:*	Month 12 of the 2nd year
Related Assumptions and risks:	Institutional support from partner Universities Support of legal authorities		

Activity title:	Intensive course and lab in Mathematical Modelling	*Sub Ref. N°:*	*IV.2.1.*
Starting date:	Month 5 of the 2nd year	*End date:*	Month 5 of the 2nd year
Description of the activity:	Intensive course in Mathematical Modelling for students of Master programme in Mathematical modelling		
The consortium member/s or experts who will carry out the activity:	One expert from WB universitieas and two EU experts		
Target group/s:	Graduate students of WB universities, total number of 20 Graduate students from EU countries, total number of 4		

Inputs:	20 students from WB to Shkodra for 1 month (stay and travel costs) – 11600 2 EU experts to Shkodra for 3 weeks (stay and travel costs) – 4800 Teaching staff costs (2 EU professors x 15 days x 240) –7200 Administrative staff costs (15 days x 16) – 240 Equipment costs: 6 Video Projectors 4800 (1600 self-financing) 10 Personal Computers 7000 4 Laptops 3120 1 Color Laser Printer 400 Printing and publishing costs: 27 sets of course hand-outs x 40 = 1080 Institutional costs: (15 students form other WB + 4 EU) x 60 euros = 1140 (self-fin) Total : 41380

Activity title:	Intensive course in Financial mathematics		*Sub Ref. N°:*	*IV.2.2.*
Starting date:	Month 9 of the 2nd year	*End date:*	Month 9 of the 2nd year	
Description of the activity:	Intensive course in Financial Mathematics for students of Master programme in Financial Mathematics			
The consortium member/s or experts who will carry out the activity:	One expert from WB universitieas and two EU experts			
Target group/s:	Graduate students of WB universities, total number of 20 Graduate students from EU countries, total number of 4			
Inputs:	20 students from WB to Banja Luka for 1 month (stay and travel costs) – 11600 2 EU experts to Banja Luka for 3 weeks (stay and travel costs) – 4800 Teaching staff costs (2 EU professors x 15 days x 240) – 7200 Administrative staff costs (15 days x 35) – 525 Equipment costs: 1 Video Projector 800 10 Personal Computers 7000 1 Overhead projector 250 1 Server 1500 2 Laptops 1560 1 Color Printer/Copier/Scaner 800 1 Whiteboard 140 Printing and publishing costs: 27 sets of course hand-outs x 40 = 1080 Institutional costs: (15 students form other WB + 4 EU) x 60 euros = 1140 (self-fin) Total : 38395			

Outcome/output title:	Improvement of IT and library facilities		*Ref. N°:*	**V.**
Starting date:	Month 9 of the 1st year	*End date:*	Month 12 of the 2nd year	
Related Assumptions and risks:	Institutional support from partner Universities No risks			

Activity title:	Upgrading departmental libraries at WB universities		*Sub Ref. N°:*	*V.3.*
Starting date:	Month 9 of the 2nd year	*End date:*	Month 12 of the 2nd year	
Description of the activity:	Upgrading departmental libraries at WB universities.			
The consortium member/s or experts who will carry out the activity:	Professors and librarians from WB universities			
Target group/s:	WB universities			
Inputs:	Administrative staff costs (30 days x 40) - 1200 Book costs – University of Sarajevo 8000 Universities of Podgorica, Shkodra, Banja Luka 3 x 5000 = 15000 Books and MathSciNet Access - University of Skopje 4400 Total: 28600			

RELATED COSTS (for the outcome/output described above)	
Budget Heading	***Related Costs in €***
Staff Costs	34735
Cost of Stay, Travel Costs, Institutional Costs	55060
Equipment Costs	54770
Printing and Publishing Costs	2160
Other Costs	1780
Total Costs	**148505**

OUTCOME/OUTPUT AND ACTIVITY TABLES – THIRD YEAR

Outcome/output title:	Doctoral curricula design in areas of Pure Mathematics, Applied Mathematics and Theoretical Computer Science and the first phase of implementation	*Ref. N°:*	**II.**
Starting date:	Month 5 of the 1st year	*End date:*	Month 12 of the 3rd year
Related Assumptions and risks:	Institutional support from partner Universities Support of legal authorities No risks		

Outcome/output title:	The first phase of implementation of PhD programme SEE doctoral year 2011	*Ref. N°:*	**II.2.**
Starting date:	Month 1 of the 3rd year	*End date:*	Month 12 of the 3rd year
Related Assumptions and risks:	Institutional support from partner Universities Support of legal authorities No risks		

Activity title:	Pure Mathematics 1 intensive course	*Sub Ref. N°:*	*II.2.1*
Starting date:	Month 2 of the 3rd year	*End date:*	Month 2 of the 3rd year
Description of the activity:	The first course in Pure Mathematics for 24 students of SEE doctoral studies in Mathematics		
The consortium member/s or experts who will carry out the activity:	Two experts from WB universitieas and one EU expert		
Target group/s:	PhD students of WB universities, total number of 20 PhD students from EU countries, total number of 4		
Inputs:	20 students from WB to Belgrade for 1 month (stay and travel costs) – 11600 1 EU expert to Belgrade for 3 weeks (stay and travel costs) – 2400 Teaching staff costs (1 EU professor x 15 days x 240) – 3600 Administrative staff costs (15 days x 35) – 525 Equipment costs: 5 Video Projectors 4000 20 Personal Computers (Monitors incl.) 13000 2 server 3000 1 BackUp 4000 1 UPS 1000 2 Scanner 400 1 Color Laser Printer 400 5 Screen 500 Printing and publishing costs: 27 sets of course hand-outs x 40 = 1080 Institutional costs: (15 students form other WB + 4 EU) x 60 euros = 1140 (self-fin) Total : 46645		

Activity title:	Applied Mathematics 1 intensive course	*Sub Ref. N°:*	*II.2.2*
Starting date:	Month 3 of the 3rd year	*End date:*	Month 3 of the 3rd year
Description of the activity:	The first course in Applied Mathematics for 24 students of SEE doctoral studies in Mathematics		
The consortium member/s or ex-perts who will carry out the activity:	One expert from WB universitieas and two EU experts		
Target group/s:	PhD students of WB universities, total number of 20 PhD students from EU countries, total number of 4		
Inputs:	20 students from WB to Tuzla for 1 month (stay and travel costs) – 11600 2 EU experts to Tuzla for 3 weeks (stay and travel costs) – 4800 Teaching staff costs (2 EU professors x 15 days x 240) – 7200 Administrative staff costs (15 days x 35) – 525 1 Enclosure 2450 2 Inter Connest Switch 3100 5 Servers 8000 10 SAS HDD 2300 (Self financing) 5 Ethernet Expansion Card 350 1 Rack (complete) Cabinet 960 2 DPI Rack 230 1 UPS – Rack 3050 4 C19 meter line cord 76 2 DPI 32 amp/250 V Front-end PDU 610 Printing and publishing costs: 27 sets of course hand-outs x 40 = 1080 Institutional costs: (15 students form other WB + 4 EU) x 60 euros = 1140 (self-fin) Total : 47471		

Activity title:	Theoretical Computer Science 1 intensive course	*Sub Ref. N°:*	*II.2.3*
Starting date:	Month 4 of the 3rd year	*End date:*	Month 4 of the 3rd year
Description of the activity:	The first course in Theoretical Computer Science for 24 students of SEE doctoral studies in Mathematics		
The consortium member/s or ex-perts who will carry out the activity:	Two experts from EU and one expert form WB		
Target group/s:	PhD students of WB universities, total number of 20 PhD students from EU countries, total number of 4		

Inputs:	20 students from WB to Skopje for 1 month (stay and travel costs) – 11600 2 EU experts to Skopje for 3 weeks (stay and travel costs) – 4800 Teaching staff costs (2 EU professors x 15 days x 240) – 7200 Administrative staff costs (15 days x 45) – 675 Equipment costs: 1 Video Projector 800 10 Personal Computers 7000 2 Sever 3000 2 Laptops 1560 1 Color Printer/copier/scaner 800 1 lisensed software 1000 Printing and publishing costs: 27 sets of course hand-outs x 50 = 1080 Institutional costs: (15 students form other WB + 4 EU) x 60 euros = 1140 (self-fin) Total : 40655

Activity title:	Pure Mathematics 2 intensive course		*Sub Ref. N°:*	*II.2.4*
Starting date:	Month 8 of the 3rd year	*End date:*	Month 8 of the 3rd year	
Description of the activity:	The second course in Pure Mathematics for 24 students of SEE doctoral studies in Mathematics			
The consortium member/s or experts who will carry out the activity:	Two experts from WB universitieas and one EU expert			
Target group/s:	PhD students of WB universities, total number of 20 PhD students from EU countries, total number of 4			
Inputs:	20 students from WB to Sarajevo for 1 month (stay and travel costs) – 11600 1 EU expert to Sarajevo for 3 weeks (stay and travel costs) – 2400 Teaching staff costs (1 EU professor x 15 days x 240) – 3600 Administrative staff costs (15 days x 35) – 525 Equipment costs: 1 Video Projector 800 16 Personal Computers 11200 1 Laptops 780 1 Colour Printer/Copier/Scaner 800 Switch 150 Mathematica (software licence) 8300 (self-financing 2800) Maple (software licence) 850 Printing and publishing costs: 27 sets of course hand-outs x 40 = 1080 Institutional costs: (15 students form other WB + 4 EU) x 60 euros = 1140 (self-fin) Total : 43225			

Activity title:	Applied Mathematics 2 intensive course	*Sub Ref. N°:*	*II.2.5*
Starting date:	Month 9 of the 3rd year	*End date:*	Month 9 of the 3rd year
Description of the activity:	The second course in Applied Mathematics for 24 students of SEE doctoral studies in Mathematics		
The consortium member/s or experts who will carry out the activity:	Two experts from EU and one expert from WB		
Target group/s:	PhD students of WB universities, total number of 20 PhD students from EU countries, total number of 4		
Inputs:	18 students from WB to Podgorica for 1 month (stay and travel costs) – 11600 2 EU experts to Podgorica for 3 weeks (stay and travel costs) – 4800 Teaching staff costs (2 EU professors x 15 days x 240) – 7200 Administrative staff costs (15 days x 40) – 600 Equipment costs: 20 Personal Computers 14000 5 Laptops 3900 1 Color Laser Printer 400 Printing and publishing costs: 27 sets of course hand-outs x 40 = 1080 Institutional costs: (15 students form other WB + 4 EU) x 60 euros = 1140 (self-fin) Total : 44720		

Activity title:	Theoretical Computer Science 2 intensive course	*Sub Ref. N°:*	*II.2.6*
Starting date:	Month 10 of the 3rd year	*End date:*	Month 10 of the 3rd year
Description of the activity:	The second course in Theoretical Computer Science for 24 students of SEE doctoral studies in Mathematics		
The consortium member/s or experts who will carry out the activity:	Two experts from EU and one expert from WB		
Target group/s:	PhD students of WB universities, total number of 20 PhD students from EU countries, total number of 4		
Inputs:	20 students from WB to Sofia for 1 month (stay and travel costs) = 11600 1 EU expert to Sofia for 3 weeks (stay and travel costs) = 2400 Teaching staff costs (2 Bulgarian professors x 20 days x 56 + 1 EU professor x 15 days x 240) = 5840 Administrative staff costs (15 days x 29) = 435 Printing and publishing costs: 27 sets of course hand-outs x 40 = 1080 Institutional costs: 20 students WB x 60 euros = 1200 Total : 22555		

Outcome/output title:	Strategy to train the next generation of mathematics professors at Western Balkans universities for the research based education and student centered learning	*Ref. N°:*	**III.**

Starting date:	Month 1 of the 2nd year	*End date:*	Month 12 of the 2nd year
Related Assumptions and risks:	Institutional support from partner Universities Support of legal authorities No risks		

Activity title:	Short study visits from WB universities to EU partner countries		*Sub Ref. N°:*	*III.5.*
Starting date:	Month 1 of the 3rd year	*End date:*	Month 11 of the 3rd year	
Description of the activity:	Individual 6 days study visits from WB universities experts engaged in courses development to institutions in EU.			
The consortium member/s or experts who will carry out the activity:	Young professors and experts from the WB universities, total number of 3.			
Target group/s:	Academic staff and PhD students of WB universities			
Inputs:	Three visits from WB to EU (stay and travel costs) - 3360 Administrative staff costs (3 days x 100) - 300 Total 3660			

Activity title:	Short study visits from EU partner countries to WB universities		*Sub Ref. N°:*	*III.6.*
Starting date:	Month 3 of the 3rd year	*End date:*	Month 5 of the 3rd year	
Description of the activity:	Individual 6 days study visits of EU experts to partner institutions in WB			
The consortium member/s or experts who will carry out the activity:	Experts from EU institutions, total number of 3.			
Target group/s:	Academic staff and PhD students of WB universities.			
Inputs:	Three 6 days visits to WB universities (stay and travel costs) - 2640 Administrative staff costs (6 days x 40) – 240 Total 2880			

Activity title:	Study visits from WB universities to WB universities		*Sub Ref. N°:*	*III.7.*
Starting date:	Month 1 of the 3rd year	*End date:*	Month 11 of the 3rd year	
Description of the activity:	Individual 6 days study visits from WB young professors to WB partner institutions.			
The consortium member/s or experts who will carry out the activity:	Professors and experts from the WB universities, total number of 4.			

Target group/s:	Academic staff and PhD students of WB universities
Inputs:	Four visits from WB to WB (stay and travel costs) - 2480 Administrative staff costs (8 days x 40) - 320 Total 2800

RELATED COSTS (for the outcome/output described above)	
Budget Heading	***Related Costs in €***
Staff Costs	39845
Cost of Stay, Travel Costs, Institutional Costs	106520
Equipment Costs	102766
Printing and Publishing Costs	6480
Other Costs	3083
Total Costs	**258694**

III.5.1 DISSEMINATION

A maximum of one page A4

Please describe the dissemination strategy the partnership will follow in order to ensure that positive results will be made available both within and outside the Partner Country institutions during the life of the project.

Describe what type of dissemination actions your partnership envisages in order to make the outcomes available to groups not directly involved in the project. This could include information sessions, training exercises or the involvement of policy-makers not belonging to the partnership.

Please consult the Tempus handbook "**Sustainability through Dissemination"** for guidance on how to plan and implement this activity. It is available at http://ec.europa.eu/education/programmes/tempus/doc_en.html in the section "Thematic publications".

1. Dynamic websites will be created at all partner universities and regularly maintained during the whole period of project activities.

2. From the inception of the project till its completion, the efforts will be made that the objectives, outputs and outcomes be adequately covered in the media of Western Balkans countries.

3. The project will receive a thorough attention at the Third Congress of Mathematical Society of South-Eastern Europe in September 2009, where the attandence of several hundred mathematicians from SEE countries and wider region is expected.

4. Students from EU universities will participate in the four-week long intensive courses in Mathematical modeling and Financial mathematics to be held at University of Montenegro and University of Banja Luka, respectively, in the second year of the project. Credits obtained for these modules will be accepted at their home institutions within ECTS.

5. The synergy with BioMedMath Network (Mathematical Modeling of Human Physiological System with Biomedical Applications) will be fostered through participation of young researchers from WB universities in the 14 day summer school aimed at PhD and Post-Doc students and 3 day scientific workshop "Mathematical Modelling of Cancer Growth and Treatment" to be held in Dundee in 2010. This is Event 4 in Marie Curie Training Series BioMedMath (2007-2010) organized by our consortium partner Institute for Mathematics and Scientific Computing, University of Graz, in cooperation with Department of Mathematical Sciences, University of Copenhagen, CNR IASI BioMatLab, Rome and Department of Mathematics, University of Dundee.

6. Each of the six intensive four-week long courses in 2011 in doctoral core subjects in pure mathematics, applied mathematics and theoretical computer science will receive five students from EU universities. The work done will be properly recognized within the system of doctoral education at the home university.

Outcome/output title:	**DISSEMINATION**		*Ref. N°:*	**VI. 2.**
Starting date:	Month 1 of the 1st year	*End date:*	Month 12 of the 3rd year	
Related Assumptions and risks:	Institutional support from partner Universities Support of legal authorities and public support No risks			

Activity title:	Creation and maintenance of dynamic web sites at partner universities		*Sub Ref. N°:*	**VI.2.1.**
Starting date:	Month 1 of the 1st year	*End date:*	Month 12 of the 1st year	
Description of the activity:	Creation ond maintenance of dynamic web sites of the JP			
The consortium member/s or experts who will carry out the activity:	Technical staff from partner universities and MASSEE			
Target group/s:	WB universities participating in the project			
Inputs:	Technical staff costs (15days x 21 (AL) + 15ays x 50 x2 (BA) + 15 days x 28 (MK) + 15 days x 45 (ME) + 15 days x 35 (RS)) – 3435 Total: 3435			

Activity title:	Maintenance of dynamic web sites at partner universities		*Sub Ref. N°:*	**VI.2.1.**
Starting date:	Month 1 of the 2nd year	*End date:*	Month 12 of the 3rd year	
Description of the activity:	Creation and maintenance of dynamic web sites of the JP			
The consortium member/s or experts who will carry out the activity:	Technical staff from partner universities			
Target group/s:	WB universities participating in the project			
Inputs:	Technical staff costs (30 days x 21 (AL) + 30 days x 50x2 (BA) + 30 days x 28 (MK) + 30 days x 45 (ME) + 30 days x 35 (RS)) – 6870 Total: 6870			

Activity title:	PR of the JP		*Sub Ref. N°:*	**VI.2.2.**
Starting date:	Month 1 of the 1st year	*End date:*	Month 12 of the 3rd year	

Description of the activity:	PR of the JP
The consortium member/s or experts who will carry out the activity:	Administrative staff and professors from partner universities MASSEE
Target group/s:	WB universities participating in the project and public at WB countries
Inputs:	Administrative staff costs (30 days x 16 (AL) + 30 days x 35x2 (BA) + 30 days x 47 (MK) + 30 days x 40 (ME) + 30 days x 35 (RS)) – 6240 Printing and publishing costs - 3000 Total: 9240

Activity title:	Presentation of the JP at MICOM		*Sub Ref. N°:*	**VI.2.3.**
Starting date:	Month 9 of the 1st year	*End date:*	Month 9 of the 1st year	
Description of the activity:	Consortium Committee of the JP will present the JP, its outcomes and goals at MICOM, the conference of the Mathematical Society of South Eastern Europe			
The consortium member/s or experts who will carry out the activity:	Consortium Committee and Academic Board representatives, total number of 5			
Target group/s:	Other WB universities			
Inputs:	Five visits from WB universities to Ohrid, for 4 days (stay and travel costs) = 3000 Total: 3000 (self-financing)			

Activity title:	Participation of EU students in Mathematical Modelling and Financial Mathematics modules		*Sub Ref. N°:*	**VI.2.4.**
Starting date:	Month 5 of the 2nd year	*End date:*	Month 9 of the 2nd year	
Description of the activity:	Students from EU will take part in Mathematical Modelling and Financial Mathematics modules to be held at Shkodra and Banja Luka Universities			
The consortium member/s or experts who will carry out the activity:	EU students, professors form WB universities and EU professors			
Target group/s:	EU universities			

Inputs:	4 students x 1 month in Shkodra (stay and travel costs) – 2600 4 students x 1 month in Banja Luka (stay and travel costs) – 2600 Total: 5200

Activity title:	Synergy with Marie Curie BioMedMath Network		*Sub Ref. N°:*	**VI.2.5.**
Starting date:	Month 8 of the 2nd year	*End date:*	Month 8 of the 2nd year	
Description of the activity:	Young researchers from WB universities will participate in a 14 day summer school aimed at PhD and Post-Doc students followed by a 3 day scientific workshop "Mathematical Modelling of Cancer Growth and Treatment" to be held in Dundee in 2010. This is Event 4 in Marie Curie Training Series BioMedMath (2007-2010) organized by our consortium partner Institute for Mathematics and Scientific Computing, University of Graz, in cooperation with Department of Mathematical Sciences,			
The consortium member/s or experts who will carry out the activity:	Institute for Mathematics and Scientific Computing of Karl-Franzens University of Graz, with the assistance of other consortium members			
Target group/s:	Young researchers and professors from WB universities			
Inputs:	Two students for 17 days to Dundee (stay and travel costs) = 2160 One professor for 4 days to Dundee (stay and travel costs) = 970 Total: 3130 (Self-financing)			

Activity title:	Participation of EU students in PhD modules in PM		*Sub Ref. N°:*	**VI.2.6.**
Starting date:	Month 2 of the 3rd year	*End date:*	Month 8 of the 3rd year	
Description of the activity:	Students from EU will take part in two PhD moduls in PM to be held at Belgrade and Sarajevo Universities			
The consortium member/s or experts who will carry out the activity:	EU students, professors form WB universities and EU professors			
Target group/s:	EU universities			
Inputs:	4 students x 1 month in Belgrade (stay and travel costs) – 2600 4 students x 1 month in Sarajevo (stay and travel costs) – 2600 Total: 5200			

Activity title:	Participation of EU students in PhD modules in AM	*Sub Ref. N°:*	**VI.2.7.**

Starting date:	Month 4 of the 3rd year	*End date:*	Month 9 of the 3rd year
Description of the activity:	Students from EU will take part in two PhD moduls in aM to be held at Podgorica and Tuzla Universities		
The consortium member/s or experts who will carry out the activity:	EU students, professors form WB universities and EU professors		
Target group/s:	EU universities		
Inputs:	4 students x 1 month in Podgorica (stay and travel costs) – 2600 4 students x 1 month in Tuzla (stay and travel costs) – 2600 Total: 5200		

Activity title:	Participation of EU students in PhD modules in TCS	*Sub Ref. N°:*	**VI.2.8.**
Starting date:	Month 6 of the 3rd year	*End date:*	Month 10 of the 3rd year
Description of the activity:	Students from EU will take part in two PhD moduls in TCS to be held at Skopje and Sofia Universities		
The consortium member/s or experts who will carry out the activity:	EU students, professors form WB universities and EU professors		
Target group/s:	EU universities		
Inputs:	4 students x 1 month in Skopje (stay and travel costs) – 2600 Total: 2600		

COSTS RELATED TO DISSEMINATION	
Budget Heading	***Related Costs in €***
Staff Costs	16545
Cost of Stay and Travel Costs	24330
Equipment Costs	0
Printing and Publishing Costs	3000
Other Costs	530
Total Costs	**44405**

III.5.2 SUSTAINABILITY

Identify the activities and results that are to be maintained

To anticipate the sustainability of your project, please describe, in table A below, under "long-term perspectives", the project's activities or results that are supposed to last and/or be disseminated after the end of the EU funding.

Sustainability may not concern all the aspects of a project. In each project some activities or outputs may be maintained, while others may not be so necessary to maintain. A project can therefore be considered as sustainable if relevant activities are pursued and outputs are maintained or developed after the end of the EU funding (i.e. duration of new courses, up-dating of new tools…).

In table B below, please estimate the cost of the project's activities that are to be maintained and the way they could be financed.

Anticipate the main sustainability factors in your project

In the section C below, please list the main context factors to take into account to ensure your project's sustainability. They can have a positive or a negative influence on sustainability, depending on the specific characteristics of each context. These factors are context level factors, that is, elements external to the project itself but which you may influence somehow:

Main **context level factors**:

1. Academic and/or Institutional support
2. National support
3. Socio-economic support

Please complete section D below by describing how you intend practically to ensure the sustainability of your project, that is how you intend to take into account the context level factors (see section C below) as well the main project level factors:

Main **project level factors**:

1. Quality of project design in meeting academic, professional and/or social needs
2. Involvement of partners: sense of ownership and motivation
3. Effective management and leadership
4. Active participation of the audience (direct target groups)
5. Capacity for securing adequate resources for continuation

Please consult the Tempus handbook "**Handbook on the sustainability of international higher education cooperation projects"** for guidance on how to plan for and ensure sustainability. It is available at http://ec.europa.eu/education/programmes/tempus/doc_en.html in the section "Thematic publications".

A. Long-term perspectives

Please describe here the project activities or results that are supposed to last and/or be disseminated after the end of the EU funding (max. 100 words):

1. structured doctoral studies established in line with Bologna principles optimizing capacities at partner institutions and yielding to systematic increase in number of highly qualified young researchers in areas from pure to applied mathematics to theoretical computer science

2. Regional cooperation and international mobility recognized as the essential part of successful doctoral education for EHEA and ERA careers
3. research groups formed (thus counter-acting isolation and atomization of research interests) with enhanced capacities to participate in EU framework programs
4. increased employability of mathematicians in wider sectors due to strengthened programs e.g. in mathematical modeling and financial and acturial mathematics

B. Project funding after EU support

Please estimate roughly the cost of the project activities that are to be maintained after the end of EU funding and how they could be financed:

Estimated cost of sustainable activities and/or results described above	Potential sponsors and funding sources (public/private; national/local)
1. 4000 euro per student per year for the minimum of next two years	Governmental scholarships, private sector, personal student funds
2. 100000 euros for equipment upgrades, software licences and electronic journal subscription renewals in the next	Governmental grants, university funds, EU funds
3.	
4.	

Comments on the estimated costs and the potential financial sources:

C. Analysis of opportunities and threats related to sustainability

Please list the main factors to take into account to ensure the sustainability of your project; academic, institutional and/or socio-economic factors:
- student motivation to finalize their doctoral studies within 2-3 post-project years and willingness of teaching and administrative staff to contribute to this goal
- converging trends in Western Balkans countries with EU policies
- increase in R&D funding (GDP/head in WB countries was 20-32% of EU-25 in 2004 and Gross Domestic Expenditure on R&D varies from 0.05% of GDP in BA to 0.32% in Serbia as opposed to Lisbon&Barcelona promoted 3% of GDP by 2010)
- synchronized efforts to use existing forms of governmental and international support to R&D for sustainability of project activities
- private sector and labor market sponsored interest

D. Provisions made to enhance potential sustainability

Please describe here which practical steps you foresee in order to ensure the sustainability of your project :

The whole system of activities leading to creation and institutional approval of high quality, networked doctoral studies in mathematical sciences is so designed to assure a wide support within academic community at all partner universities.

Right after Workshop on PhD structure in 6th Month of 1st year, extensive interaction with the responsible WB governmental agencies and ministries will be established in order to generate the required framework for implementation of harmonized doctoral program. After

inauguration of the designed curricula and syllabi at the Workshop on harmonized PhD program(s) in 6th month of 2nd year, and the institutional approval by 10th month, the government related activities will be expanded to ensure prolonged support in program maintenance and expansion and secure adequate resources for continuation and expansion of doctoral studies in all WB countries.

Equal involvement of partner Universities and the wide range of benefits to all parties involved will enhance the sense of ownership and motivate both staff and students. Media coverage of programme objectives, outputs and outcomes will help raise awareness of the wider social impact and the importance of perpetuating a fundamental science doctoral courses in WB.

Most importantly, the direct target group, i.e. the students will be strongly encouraged and supported in the completion of their doctoral studies which should lead to their active involvement in obtaining outside funds for tuition fees, either from governmental grants or the private sector interested in their research. Some students, especially those coming from the industrial/commercial sector, will partially pay tuition fees at their home universities.

Training courses for administrative staff will be organised by partner Universities in order to ensure better professional and organisational skills and sound management in the future. Establishing networks between partner Universities will be crucial in ensuring that the leadership and management of future doctoral courses is achieved with maximum cooperation between all parties involved.

The mobility of both teaching staff and students is expected to grow substantially. Continuation of funding from all partner Universities and governmental grants is expected to maintain high mobility in the future as well and will be strongly encouraged.

Incorporation of interdisciplinary and market-oriented courses in the curriculum is expected to draw attention and funding from the private sector interested in employing young experts in their particular fields of interest. Pre-doctoral Financial mathematics and Mathematical modelling courses to be realized already in 2nd project year, are particularly important in this aspect.

E. Activities devoted to sustainability during the project's life time and requiring specific finance

Amongst specific activities which are to be implemented during the project's life time in order to ensure its sustainability, some may require finance: for example specific dissemination to potential financers, specific activities to obtain accreditation, etc.
Please complete the following tables for each of the activities to be financed in order to ensure future sustainability:

Outcome/output title:	**SUSTAINABILITY**		*Ref. N°:*	**VI.3.**
Starting date:	Month 1 of the 1st year	*End date:*	Month 12 of the 3rd year	
Related Assumptions and risks:	Willingness of Partner universities to continue the PhD program after 2011 Support of legal authorities Risks: Unsufficient political stability in some partner countries			

Activity title:	Institutional approval of modules in Mathematical Modelling and Financial Mathematics	*Sub Ref. N°:*	**VI.3.1.**
Starting date:	Month 9 of the 1st year	*End date:*	Month 12 of the 1st year
Description of the activity:	Activities on institutional approval of modules in Mathematical Modelling and Financial Mathematics at partner universities		
The consortium member/s or experts who will carry out the activity:	Experts from WB universities involved in the curricula development, administrative staff at universities and departments		
Target group/s:	WB universities participating in the project		
Inputs:	Administrative staff costs (5 days x 40 (ME) + 5 days x 35x3(BA) + 5 days x 16 (AL) + 5 days x 45 (MK) + 5 days x 35 (RS)) – 1205 Printing and publishing costs – 2100 (self-financing) Total: 3305		

Activity title:	Contacts with Rectorates, national Acreditation agencies and Ministries of Education	*Sub Ref. N°:*	**VI.3.2.**
Starting date:	Month 6 of the 1st year	*End date:*	Month 3 of the 3rd year
Description of the activity:	Activities on contacts with Rectorates, national Acreditation agencies and Ministries of Education		
The consortium member/s or experts who will carry out the activity:	Experts from WB universities involved in the curricula development, members of the Academic Board, administrative staff at universities and departments		
Target group/s:	WB universities participating in the project		
Inputs:			

Activity title:	Workshop on harmonized PhD programs	*Sub Ref. N°:*	**VI.3.3.**
Starting date:	Month 6 of the 2nd year	*End date:*	Month 6 of the 2nd year
Description of the activity:	Joint workshop of consortium representatives and representatives of the Academic Board on progress made on institutional approval of harmonized PhD programs at WB partner universities		
The consortium member/s or experts who will carry out the activity:	Experts from WB universities involved in the curricula development, total number of 7, represenadministratives of the Academic Board, total number of 4, representatives of the EU consortium members, total number of 4.		
Target group/s:	WB universities participating in the project		

Inputs:	Four experts from EU to Belgrade for 4 days (stay and travel costs) – 2880 Four representatives of the Academic Board (2 from EU, 2 from WB) to Belgrade for 4 days (stay and travel costs) – 2480 Seven experts form WB to Belgrade for 4 days (stay and travel costs) - 3640 Administrative staff cost (10 days x 35) – 350 Total: 9350

Activity title:	Institutional approval of PhD curricula in PM, AM and TCS at partner universities		*Sub Ref. N°:*	**VI.3.4.**
Starting date:	Month 6 of the 2nd year	*End date:*	Month 10 of the 2nd year	
Description of the activity:	Activities on institutional approval of PhD curricula in PM, AM and TCS at partner universities			
The consortium member/s or experts who will carry out the activity:	Experts from WB universities involved in the curricula development, administrative staff at universities and departments			
Target group/s:	WB universities participating in the project			
Inputs:	Administrative staff costs (15 days x 40 (ME) + 15 days x 35 x3 (BA) + 15 days x 16 (AL) + 15 days x 45 (MK) + 15 days x 35 (RS)) – 3615 Printing and publishing costs – 2100 (self-financing) Total: 5715			

COSTS RELATED TO SUSTAINABILITY	
Budget Heading	***Related Costs in €***
Staff Costs	5170
Cost of Stay and Travel Costs	9000
Equipment Costs	0
Printing and Publishing Costs	4200
Other Costs	220
Total Costs	**18590**

III.5.3 QUALITY CONTROL AND MONITORING

A maximum of half page, A4 size

Quality control and monitoring should be an integral part of all project activities and results. Please use this section to describe your overall internal and external quality control and monitoring strategies/methods by providing information on the following issues:

- How will the timely achievement of the planned outcomes be demonstrated/measured in an objective and quantifiable way?
- Which are the adjustment mechanisms foreseen in case the quality differs from the one expected or if the outcomes will not be achieved on time?
- Please describe the concrete evaluation measures and the identified responsible actors.

Mechanisms for quality control and monitoring could include, for example,

- peer reviews
- evaluation surveys
- internal institutional evaluation boards
- external accreditation boards.

In the case of Curricular Refrom projects, quality can be encouraged through student evaluations, mandatory accreditation of all new/modified study programmes and increased recognition on an international level.

Inter-Tempus project coaching is highly recommended; partnerships may contact the members of running and/or completed Tempus projects in a similar field in order to use their accumulated expertise and to undertake a peer review. For details of running/ completed projects, applicants should consult the internet at the following address: http://europa.eu.int/comm/education/programmes/tempus/index_en.html.

Applicants may also contact the National Contact Points (European Union Member States) and/or the National Tempus Offices (Tempus Partner Countries). Costs for Inter-Tempus project monitoring may be covered by the category “Other Costs” up to a maximum of € 2500 per project and cover fees, travel and subsistence. Resulting monitoring and quality reports undertaken must be included in the relevant Technical Implementation Report.

The project's main outcome is establishment of harmonized, high quality, internationally oriented, networked doc-toral program in mathematical sciences at WB universities. The Academic Board (AB) will have important role in QA processes of PhD curricula and syllabi design during Years 1 and 2 and in monitoring the implementation during Year 3: SEE Doctoral Year in Mathematical Sciences. AB will consist of 10 eminent professors in pure and applied mathematics and theoretical computer science from EU and WB. Involvement of WB alumni now working at EU universities or research institutions, will give the additional quality to AB activities.The model and curricula of SEE Doctoral Studies in Mathematical Sciences as a doctoral program or a harmonized system of doctoral programs will be institutionally aproved by all universities in the network.Participation of EU professors and EU students in the courses will further increase international recognition. At the end of each course, a feed-back from all participants (students and lecturers) will be analyzed.The key activities are so scheduled that the Consortium Committee can closely follow their realization and react appropriately. For each project outcome, self-evaluation report will be produced by the group of main actors for achievement of the outcome.

Outcome/output title:	**QUALITY CONTROL AND MONITORING**		*Ref. N°:*	**VI. 4.**
Starting date:	Month 1 of the 1st year	*End date:*	Month 12 of the 3rd year	
Related Assumptions and risks:	Institutional support from partner Universities and good coordination Full reports of consortium members and experts on progress of each outcome Full reports of consortium members on problems and delays Support of legal authorities Risks: Unsufficient political stability in some partner countries			

Activity title:	Establishment of the Academic Board		*Sub Ref. N°:*	**VI.4.1.**
Starting date:	Month 6 of the 1st year	*End date:*	Month 6 of the 1st year	
Description of the activity:	Establishment of the Academic Board at the Workshop on PhD structure and defining its role in quality control management and evaluation of the progress.			
The consortium member/s or experts who will carry out the activity:	Experts from the WB and EU universities involved in the curricula development, administrative staff at universities and departments.			
Target group/s:	WB universities participating in the project			
Inputs:	Administrative staff costs (2 days x 100) – 200 Costs of the academic work of the Academic Board June-October 1st year (15 days) 15 x (40 (AL) + 64x2 (BA) + 40(RS) + 56x2 (BG) + 70 (ME) + 70 (MK) + 100 x2 (AT))- 9900 Total: 10100			

Activity title:	Academic Board meeting on core knowledge and evaluation of Young Researchers' Workshop outputs		*Sub Ref. N°:*	**VI.4.2.**
Starting date:	Month 10 of the 1st year	*End date:*	Month 10 of the 1st year	
Description of the activity:	Meeting of the Academic Board on evaluation of Young Researchers Workshop outputs and identification of a core knowledge required from a PhD student in PM, AM and TCS. Preparing materials for the Workshop on core subjects and quality assurance.			
The consortium member/s or experts who will carry out the activity:	Members of the Academic Board, total number of 10.			
Target group/s:	Academic staff and graduate students of WB universities			
Inputs:	Two experts from EU to Sofia for 4 days (stay and travel costs) – 1420 Seven experts from WB countries to Sofia for 4 days (stay and travel costs) – 4340 Printing and publishing costs – 400 Administrative staff costs (8 days x 29) - 232 Total: 6392			

Activity title:	Academic Board meeting on monitoring and core subjects syllabi		*Sub Ref. N°:*	**VI.4.3.**
Starting date:	Month 3 of the 2nd year	*End date:*	Month 3 of the 2nd year	
Description of the activity:	Meeting of the Academic Board on monitoring the progress on development of harmonized PhD program at WB partner universities. Final agreemant on core subjects syllabi.			
The consortium member/s or experts who will carry out the activity:	Members of the Academic Board, total number of 10.			
Target group/s:	Academic staff and graduate students of WB universities			
Inputs:	Two experts from EU to Sarajevo for 4 days (stay and travel costs) – 1420 Seven experts from WB countries to Sarajevo for 4 days (stay and travel costs) – 3640 Printing and publishing costs – 400 Administrative staff costs (8 days x 35) – 280 Costs of the academic work of the Academic Board November 1st year – March 2nd year (18 days) 18 x (40 (AL) + 64x2 (BA) + 40(RS) + 56x2 (BG) + 70 (ME) + 70 (MK) + 100 x2 (AT))- 11880 Total: 17620			

Activity title:	One day round tables on PhD curricula at WB universities		*Sub Ref. N°:*	**VI.4.4.**
Starting date:	Month 4 of the 2nd year	*End date:*	Month 4 of the 2nd year	
Description of the activity:	One day round tables on PhD structure and curricula at universities of Sarajevo, Belgrade, Montenegro, Skadar and Skopje			
The consortium member/s or experts who will carry out the activity:	Members of the Academic Board and experts form WB universities			
Target group/s:	Academic staff, graduate students of WB universities and public at WB countries			
Inputs:	Printing and publishing costs: 5 x 400 = 2000 Costs of the Academic Board 2 days x (40 (AL) + 64(BA) + 40(RS) + 70 (ME) + 70 (MK)) - 568 Total: 2568			

Activity title:	Academic Board Final meeting		*Sub Ref. N°:*	**VI.4.5.**
Starting date:	Month 10 of the 3rd year	*End date:*	Month 10 of the 3rd year	
Description of the activity:	Meeting of the Academic Board in Skopje on evaluation of the progress of the first phase of the PhD program and quality control. Preparation of the evaluation report for the final meeting of coordinators.			
The consortium member/s or experts who will carry out the activity:	Members of the Academic Board, total number of 10.			

Target group/s:	Academic staff and graduate students of WB universities
Inputs:	Three experts from EU to Skopje for 4 days (stay and travel costs) – 2160 Six experts from WB countries to Skopje for 4 days (stay and travel costs) – 3420 Printing, publishing and PR costs – 400 Administrative staff costs (8 days x 45) – 360 Costs of the academic work of the Academic Board January- Novemberer 3rd year (16 days) 16 x (40 (AL) + 64x2 (BA) + 40(RS) + 56x2 (BG) + 70 (ME) + 70 (MK) + 100 x2 (AT))- 10560 Total: 16900

COSTS RELATED TO QUALITY CONTROL AND MONITORING	
Budget Heading	***Related Costs in €***
Staff Costs	33980
Cost of Stay and Travel Costs	16400
Equipment Costs	0
Printing and Publishing Costs	3200
Other Costs	650
Total Costs	**54230**

III.5.4 MANAGEMENT OF THE PROJECT

A maximum of one page, A4 size

Please provide a clear indication of the **role and responsibility** within the project of **each** member of the partnership and, where appropriate, of each individual expert.

Applicants should give a forecast of the tasks that will have to be performed in each project year in order to guarantee effective and efficient project management. This section should also indicate the working hours needed for project management.

In addition, you should explain how the overall project management will be implemented making specific reference to the management structure of the partnership, how decisions will be taken (reference should be made to decision-making mechanisms/bodies and their roles in case of divergent opinions) and how the partnership proposes to ensure permanent and effective communication and reporting.

The project will be managed on a day to day basis by the Concortium Committee (CC) consisting of the project coordinator and the contact persons at the consortium member institutions. The Consortium Committee has a fortunate blend of outstanding experience in university teaching and research and administrative work at higher education/research institutions, on one side, and the youth enthusiasm of the emerging generation of professors at WB universities, on the other. The coordinator and several CC members have successfully lead quite a number of major national and international projects in research and higher education area, several TEMPUS JEPs included. They have served as or are still holding positions of vice-rectors at their universities, deans of science, heads od departments and graduate programmes, country representatives in a number of important international bodies.

Karl-Franzens University of Graz, Sofia "St. Kliment Ohridski" University, the Institute of Mathematics and Informatics of the Bulgarian Academy of Sciences will support processes of establishing a structured doctoral program in mathematical sciences at Western Balkans universities that will have a critical mass of professors and doctoral candidates and meet the Bologna goals. It is the responsiblility of WB partners to decide on the model of SEE Doctoral Studies in Mathematical Sciences and have it aproved as a program or a system of harmonized doctoral programmes. During the first two years, EU experts will assist in the creation of PhD curricula in pure mathematics, applied mathematics and theoretical computer science based on EHEA-ERA trends and taking into account the existing expertise in mathematical researh in the region. EU professors will actively participate with their WB colleagues in implementation of the adopted curricula and encourage participation of EU students in the courses envisaged by the project.

The character of the project implies that the activities are well-distributed between all consortium members. The CC kick-off meeting in 1st Month 1st Year and the Final review meeting in 12th Month 3rd Year will take place in Sarajevo, the review and the planning meeting at the end of Year 1 will be held in Belgrade and at the end of Year 2 in Skopje. Academic Board meetings will be in Sofia (Month 10, Year 1), Sarajevo (Month 3, Year 2) and Skopje (Month 10, Year 3). Workshop on PhD sctructure (6th month of 1st year) will take place in Graz, Workshop on Core Subjects and QA in Tuzla (Month 11, Year 11) and Workshop on harmonized PhD programs in Belgrade (Month 6, Year 2). University of Graz will provide one week training in use of IT in mathematical modelling in 9th month of 1st year to be followed by Workshop on Scientific and Labor market oriented goals: Mathematical modelling and Financial Mathematics at the University of Montenegro in 10th month. Shkodra University will host Intensive course and lab in Mathematical modelling (Month 5, Year 2) and Banja Luka will be the place of Intensive course in Financial mathematics (Month 9, Year 2). Six PhD core courses that mark the SEE Doctoral Year 2011 and set the standards in further implementation of the networked SEE Doctoral studies in mathematical sciences are distributed as follows:

Pure mathematics 1 (Belgrade, Month 2), Applied mathematics 1 (Tuzla, Month 3), Theoretical computer science 1 (Skopje, Month 4), Pure mathematics 2 (Sarajevo, Month 8), Applied mathematics 2 (Podgorica, Month 9) and Theoretical computer science 2 (Sofia, Month 10).

The successful mamagement of the project requires 2 days work per week on the coordinator's part, 3 days per month of each of other 10 members of the Consortium Committee and 12 days per month part time assistant at the grant applying institution.Workshops and courses have local admin. work at host institutions as an input.

Outcome/output title:	**MANAGEMENT OF THE PROJECT**		*Ref. N°:*	**VI.1.**
Starting date:	Month 1 of the 1st year	*End date:*	Month 12 of the 3rd year	
Related Assumptions and risks:	Institutional support from partner Universities Support of legal authorities and public support No risks			

Activity title:	Consortium Committee initial meeting		*Sub Ref. N°:*	**VI.1.1.**
Starting date:	Month 1 of the 1st year	*End date:*	Month 1 of the 1st year	
Description of the activity:	Coordination meeting in Sarajevo on the project development, strategy and timetable. Identification of needs and abilities.			
The consortium member/s or experts who will carry out the activity:	One representative from each consortium member, total of 11 participants.			
Target group/s:	WB universities participating in the project			
Inputs:	Three CC members from EU to Sarajevo for 3 days (stay and travel costs) – 2400 Five CC members from WB countries to Sarajevo for 3 days (stay and travel costs) – 2750 Two CC members from BiH universities to Sarajevo for 3 days (stay and travel costs) – 540 Printing, publishing and PR costs – 200 Administrative staff costs – 700 (20 days x 35) Total: 6590			

Activity title:	Consortium Committee First Review and Planning meeting		*Sub Ref. N°:*	**VI.1.2.**
Starting date:	Month 12 of the 1st year	*End date:*	Month 12 of the 1st year	
Description of the activity:	Coordination meeting in Belgrade on the project development, strategy and timetable. Self-evaluation, monitoring and identification of needs.			
The consortium member/s or experts who will carry out the activity:	One representative from each consortium member, total of 11 participants.			
Target group/s:	WB universities participating in the project			

Inputs:	Three CC members from EU to Belgrade for 3 days (stay and travel costs) – 2400 Seven CC members from WB countries to Belgrade for 3 days (stay and travel costs) – 3640 Printing, publishing and PR costs – 200 Consortium members managerial work costs for the 1st year 36 days x (52 (AL) + 65 x 2 (BA) + 65 (MK) + 65 (ME) + 65 (RS) + 62 x 2 (BG) + 100(AT) + 100 (EL)) – 25236 Project coordinator's managerial work costs for the 1st year 96 days x 75 – 7200 One part time administrative staff person - 132 days x 35 - 4620 Total: 43296

Activity title:	Consortium Committee Second Review and Planning meeting		*Sub Ref. N°:*	**VI.1.3.**
Starting date:	Month 12 of the 2nd year	*End date:*	Month 12 of the 2nd year	
Description of the activity:	Coordination meeting in Skopje on the project development, strategy and timetable. Self-evaluation, monitoring and identification of needs.			
The consortium member/s or experts who will carry out the activity:	One representative from each consortium member, total of 11 participants.			
Target group/s:	WB universities participating in the project			
Inputs:	Three CC members from EU to Skopje for 3 days (stay and travel costs) – 2400 Seven CC members from WB countries to Skopje for 3 days (stay and travel costs) – 3640 Printing, publishing and PR costs – 200 Consortium members managerial work costs for the 2nd year 36 days x (52 (AL) + 65 x 2 (BA) + 65 (MK) + 65 (ME) + 65 (RS) + 62 x 2 (BG) + 100(AT) + 100 (EL)) – 25236 Project coordinator's managerial work costs for the 2nd year 96 days x 75 – 7200 One part time administrative staff person - 132 days x 35 - 4620 Total: 43296			

Activity title:	Consortium Committee Final Review meeting		*Sub Ref. N°:*	**VI.1.4.**
Starting date:	Month 12 of the 3rd year	*End date:*	Month 12 of the 3rd year	
Description of the activity:	Two-days final meeting in Sarajevo on the project evaluation and final report.			
The consortium member/s or experts who will carry out the activity:	One representative from each consortium member, total of 11 participants.			
Target group/s:	WB universities participating in the project.			

Inputs:	Three CC members from EU to Sarajevo for 3 days (stay and travel costs) – 2400 Five CC members from WB countries to Sarajevo for 3 days (stay and travel costs) – 2750 Two CC members from BiH universities to Sarajevo for 3 days (stay and travel costs) – 540 Printing, publishing and PR costs – 200 Consortium members managerial work costs for the 1st year 36 days x (52 (AL) + 65 x 2 (BA) + 65 (MK) + 65 (ME) + 65 (RS) + 62 x 2 (BG) + 100(AT) + 100 (EL)) – 25236 Project coordinator's managerial work costs for the 3rd year 96 days x 75 – 7200 One part time administrative staff person - 132 days x 35 - 4620 Total: 42946

COSTS RELATED TO THE MANAGEMENT OF THE PROJECT	
Budget Heading	***Related Costs in €***
Staff Costs	111868
Cost of Stay and Travel Costs	23460
Equipment Costs	0
Printing and Publishing Costs	800
Other Costs	1650
Overheads	**45209**
Total Costs	**182987**

SECTION IV: SUMMARY OF THE PROJECT

A summary of the project must be provided in English, French or German and may be included in future Tempus publications. This summary should be a snapshot of the project and should include its main features, including the principal outcomes and outputs. Please make sure that the information you provide in this section is consistent with the Logical Framework Matrix.

Outputs and Outcomes: (as in LFM)	I. Development of a model of structured doctoral studies in Mathematical Sciences involving the network of Western Balkans universities II. Doctoral curricula design in the areas of Pure Mathematics, Applied Mathematics and Theoretical Computer Science and the first phase of implementation III.Strategy to train the next generation of mathematics professors at Western Balkans universities for the research based education and student centered learning IV. Strengthening master programs from the standpoint of learning outcomes and labor market/link to the third cycle dichotomy: pilot cases in Mathematical modeling and Financial mathematics V. Improvement of IT and library facilities

Summary of the Main Features of the Project:

Approaching 2010, that will mark (according to the London Communique) the passage from the Bologna Process to the European higher education area, universities from Western Balkan countries and their EU partners that successfully collaborated under TEMPUS IIbis and TEMPUS III on various aspects of reform of higher education (the first two cycles curricula improvement, quality assurance, university management and strategic planing), join their efforts to develop structured doctoral studies in mathematical sciences in a way that overcomes fragmentation and foster the reciprocal development of human resources in accordance with EHEA-ERA goals. SEE Doctoral Year in Mathematical Sciences 2011 will be the first year of implementation of harmonized, high quality, internationally oriented and networked doctoral programmes in mathematical sciences in South-East Europe.The lasting impact is expected through a systematic increase in number of highly qualified young researchers, wider employabilty of mathematicians in nonacademic sectors and adjustment to a new paradigm in the university mathematics education making a better use of traditionally strong abilities in mathematical problem solving.

Quantitative data concerning the training of target groups involved in your project

Number of teaching staff trained or retrained	**63**
Number of trainers trained	**10**
Number of trainees trained	
Number of administrative staff trained or retrained	**14**
Number of students involved or trained	**125**

Please tick the relevant boxes indicating which of these elements are covered by your project:	
Bologna Process	
Establishment of a system of ECTS to promote student mobility	Yes
Other credit systems	Yes
Adoption of a system of easily readable and comparable degrees	Yes
Adoption of a system based on three cycles, undergraduate (bachelor) and post-graduate (Master and doctorate)	Yes
Introduction of double or joint degrees	Yes
Diploma supplement	No
Promotion of an international dimension in higher education	Yes
Lifelong learning as an essential element of the European Higher Education area	Yes
Modular structure of curriculum	Yes
Quality Assurance	Yes
e-Learning	No
University/Enterprise co-operation	No
Links to the labour market in degree programmes	Yes
Set up of project website	Yes
Qualification frameworks	No
Teacher training	
Language	No
IT skills	Yes
Social and intercultural skills	No
Curriculum specific skills	Yes
Links with VET in	
Adult training	No
Non-formal and informal education	No
Active citizenship	No
Occupational guidance and counselling	No

SECTION V: FUNDING REQUIREMENTS

In Tables 1 to 6 which follow, you are asked to provide estimates of the costs of your project (**total project costs**). Please complete the tables below, assigning costs to the headings "Staff Costs", "Travel Costs and Costs of Stay for Staff and Students", "Equipment Costs", "Printing and Publishing Costs", "Other Costs" and "Indirect Costs" (Overheads).

Applicants should note that the total **project costs** consist of the operational or direct costs (tables 1-5) and of the overheads or indirect costs (table 6). Indirect costs can be granted up to a flat rate of 7% of the total eligible direct costs.

In Table 7 you are asked to provide a detailed estimation on the amount to be co-financed by the partners, which must equal to at least 5% of the total eligible direct project costs.

Table 8 presents the sum of the figures in the previous tables which are aggregated automatically from the data you provided therein. Below the summary table, messages will appear telling you whether or not you have complied with the financial ceilings set out in the first Call for Proposals EAC/042008 under Tempus IV.

Table 9 shows the breakdown of the income with which the project will be financed; that is from the partnership's own resources and from the Tempus grant and the flat-rate grant for indirect costs.

The total project costs will be referred to as "total eligible costs" hereafter.

Tempus co-finances 95% of the total eligible direct costs of a project and grants a flat-rate for indirect costs of 7% of the total eligible direct costs:

- The **minimum grant size** for Joint Projects is **€ 500,000**. The **maximum grant size** is **€ 1,500,000**.
- In the case of Albania, Montenegro and the five Central Asian countries, the **minimum** grant size for national Joint Projects is set at € 300,000
- Joint Projects can have a duration of up to three years (36 Months)

The budget plan should be consistent with project duration and with the details of the project description. All amounts must be expressed in Euro (€).

The following ceilings should be applied:

- Equipment: maximum 30% of the total eligible direct costs;
- Overheads / Indirect costs: maximum 7% of the total eligible direct costs**.**

Applicants should be aware that the non-compliance with the budget ceilings indicated in the call for proposals 2008, may lead to a lower assessment grade or even the failure of the proposal to be selected for funding.

Please do not use any decimals and do not use "thousand separators". The figure "one thousand" should be indicated with consecutive digits: 1000 and NOT 1,000 or 1.000 or 1 000 or 1000,00

Table 1: Staff costs

The table below refers to the costs for both the academic and administrative personnel involved in the project.
Please note that local rates must be used. For further details on eligible staff costs please refer to the Annexes 1 and 2 of the Tempus IV Call for Proposals EAC/04/2008.

STAFF COSTS (please specify what type of activity will be covered and provide a **quantification** in hours for the human resources needed for these activities)*	Budget in €
EU Academic Staff	
1. (2(AT) prof. x255+1BGx56) = 1698 (activity I.2.2.) 2. (2 staff x 5 days x 250 €/day)=2500 (activity V.1.) 3. (2 EU prof. x 15 days x 240)=7200 (activity IV.2.1.) 4. (2 EU prof. x 15 days x 240)=7200 (activity IV.2.2.) 5. (1 EU prof. x 15 days x 240)=3600 (activity II.2.1.) 6. (2 EU prof. x 15 days x 240)=7200 (activity II.2.2.) 7. (2 EU prof. x 15 days x 240)=7200 (activity II.2.3.) 8. (1 EU prof. x 15 days x 240)=3600 (activity II.2.4.) 9. (2 EU prof. x 15 days x 240)=7200 (activity II.2.5.) 10. (2 (BG) prof. x 20 days x 56 +1 (AT) prof. x 15 days x 240)=5840 (activity II.2.6.) 11. (2 (BG) prof. x 15 days x 56 + 2(AT) prof. x 15 days x100)=4680 (activity VI.4.1.) 12. (2(BG) prof. x 18 days x 56 + 2(AT) x 18 days x 100)=5616 (activity VI.4.3.) 13. (2(BG) prof. x 16 days x 56 + 2 (AT) x 16 days x 100)=4992 (activity VI.4.5.)	1. 1698 2. 2500 3. 7200 4. 7200 5. 3600 6. 7200 7. 7200 8. 3600 9. 7200 10. 5840 11. 4680 12. 5616 13. 4992
Partner Country Academic Staff	
1. 8x(40(AL)+64x3(BA)+40(RS)+70(ME)+70(MK))=3296 (activity II.1.6.) 2. (40 days x (40(AL)+64x3(BA)+40(RS)+70(ME)+70(MK))=16480 (activity II.1.6.) 3. (1(AL) x 15 days x 40 + 2 (BA) x 15 days x 64 + 1(RS) x 15 days x 40 +1(ME) x 15 days x 70 + 1(MK) x 15 days x 70)=6960 (activity VI.4.1) 4. (1(AL) x 18 days x 40 +2(BA) x 18 days x 64 +1(RS) x 18 days x 40 +1(ME) x 18 days x 70 + 1(MK) x 18 days x 70)=6264 (activity VI.4.3.) 5. (1(AL) x 2 days x 40 + 1(BA) x 2days x 64 + 1(RS) x 2 days x 40 +1(ME) x 2 days x 70 + 1(MK) x 2 days x 70)=568 (activity VI.4.4.) 6. (1(AL) x 16 days x 40 +2(BA) x 16 days x 64 +1(RS) x 16 days x 40 +1(ME) x 16 days x 70 +1(MK) x 16 days x 70)=5568 (activity VI.4.5.)	1. 3296 2. 16480 3. 5220 4. 6264 5. 568 6. 5568
EU Administrative Staff	
1. (5 days x 100)=500 (activity I.1.1.) 2. (15 days x 100)=1500 (activity I.2.1.) 3. (4 days x 100)=400 (activity II.1.1) 4. (1 days x 100)=100 (activity II 1.4.) 5. (3 days x100)=300 (activity IV.1.1.) 6. (5 days x 100)=500 (activity V.1.) 7. (2 days x 100)=200 (activity II.1.1.) 8. (4,5 days x 100)=450 (activity III.1.) 9. (6 days x 100)=600 (activity III.2.) 10. (15 days x 29)=435 (activitiy II.2.6.) 11. (3 days x 100)=300 (activity III.5.) 12. (2 days x 100)=200 (activity VI.4.1.)	1. 500 2. 1500 3. 400 4. 100 5. 300 6. 500 7. 200 8. 450 9. 600

13. (2 (BG) x 108 days x 62 +1 (AT) x 108 days x 100 + 1(EL) x 108 days x 100)=34992 (activity VI.1.2. +VI.1.3.+VI.1.4.)	10. 435 11. 300 12. 200 13. 34992
Partner Country Administrative Staff	
1. (8 days x 40)=320 (activity I.1.2) 2. (10 days x 40)=400 (activity I.1.3.) 3. (15 days x 47)=705 (activity I.2.2.) 4. (8 days x 40)=320 (activity II.1.2.) 5. (10 days x 40)=400 (activity II.1.3) 6. (10 days x 35)=350 (activity II.1.5.) 7. (4 days x 40)=160 (activity IV.1.2.) 8. (4 days x 40)=160 (activity IV.1.3.) 9. (10 days x 40)=400 (activity IV.1.4.) 10. (4 days x 40)=160 (activity II.1.3.) 11. (4 days x 40)=160 (activity III.3.) 12. (8 days x 40)=320 (activity III.4.) 13. (15 days x 16)=240 (activity IV.2.1.) 14. (15 days x 35)=525 (activity IV.2.2.) 15. (30 days x 40)=1200 (activitiy V.3.) 16. (15 days x 35)=525 (activity II.2.1.) 17. (15 days x 35)=525 (activity II.2.2.) 18. (15 days x 45)=675 (activity II.2.3.) 19. (15 days x 35)=525 (activity II.2.4.) 20. (15 days x 40)=600 (activity II.2.5.) 21. (6 days x 40)=240 (activity III.6.) 22. (8 days x 40)=320 (activity III.7.) 23. (15 days x 21 (AL)+15 days x 50 x 2(BA) +15 days x 28 (MK)+15 days x 45 (ME)+15 days x 35 (RS))=3435 (activity VI.2.1.) 24. (30 days x 21 (AL) +30 days x 50 x2 (BA) + 30 days x 28 (MK)+ 30 days x 45 (ME)+30 days x 35 (RS))=6870 (activity VI.2.1.) 25. (30 days x 16 (AL)+30 days x 35x2 (BA)+30 days x 47 (MK)+30 days x 40 (ME)+30 days x 35 (RS))=6240 (activity VI.2.2.) 26. (5 days x 40 (ME)+5 days x 35 x3 (BA)+5 days x 16 (AL)+5 days x 45 (MK)+5 days x 35 (RS))=1205 (activity VI.3.1.) 27. (10 days x 35)=350 (activity VI.3.3.) 28. (15 days x 40 (ME)+15 days x 35 x3 (BA)+15 days x 16 (AL)+15 days x 45 (MK)+15 days x 35 (RS))=3615 (activity VI.3.4.) 29. (8 days x 29)=232 (activity VI.4.2.) 30. (8 days x 35)=280 (activity VI.4.3.) 31. (8 days x 45)=360 (activity VI.4.5.) 32. (20 days x 35)=700 (activity VI.1.1.) 33. 108 days x (52 (AL)+65x2(BA)+65(MK)+65(ME)+65(RS))=40716 (activity VI.1.2.+VI.1.3.+VI.1.4.) 34. (288 days x 75 (BA)=21600 (activity VI.1.2.+VI.1.3.+VI.1.4.) 35. (396 days x 35 (BA)=13860 (activiti VI.1.2.+VI.1.3.+VI.1.4.) 36. 20 days x 40 = 800 (activity V.2.) 37. 20 days x 40 = 800 (activity V.2.-technical staff)	1. 320 2. 400 3. 705 4. 320 5. 400 6. 350 7. 160 8. 160 9. 400 10. 160 11. 160 12. 320 13. 240 14. 525 15. 1200 16. 525 17. 525 18. 675 19. 525 20. 600 21. 240 22. 320 23. 3435 24. 6870 25. 6240 26. 1205 27. 350 28. 3615 29. 232 30. 280 31. 360 32. 700 33. 40716 34. 21600 35. 13860 36. 800 37. 800

TOTAL STAFF COSTS:	**256692**

***** *Please provide specific calculations, e.g.: Lecturers of Partner Country Universities A and B x X number of hours x Y €uro per hour equals Z, etc.*

Table 2: Costs of Stay, Travel Costs, Institutional costs

For maximum costs of stay, please refer to the Tempus IV Call for Proposals EAC/04/2008, Annex 3. The partnership should additionally calculate estimated travel costs and should indicate the total for both costs of stay and travel.

Please indicate in this table which mobilities are planned throughout the whole project duration
Staff/trainees

Direction		**Number of flows***	**Costs of stay (€)**	**Travel costs (€)**
From	**To**			
Partner Country	EU/Candidate Country	51	30342	19600
EU/Candidate Country**	Partner Country	59	46968	23600
EU	EU	6	4660	2400
Partner Country	Partner Country	97	40884	19400
Within a Partner Country		4	840	200
Total:			**123694**	**65200**

Students

Direction		**Number of flows***	**Costs of stay (€)**	**Institutional costs*** (€)**	**Travel costs (€)**
From	**To**				
Partner Country	EU	22	11360	3000	2400
EU	Partner Country	33	11330	1680	7260
Partner Country	Partner Country	165	71050	6300	16500
Within a Partner Country					
Total:			**93740**	**9180**	**26160**

Institutional costs

Flows to EU institutions:	A maximum of € 500 per student for a study period of maximum 3 months

Flows to Partner Country institutions: A maximum of € 200 per student for a study period of maximum 3 months

* Please note that one flow equals one two-way journey. In the case of group travel, each person should be considered as an individual flow (5 staff travelling to the same project meeting = 5 flows). Should an individual carry out several visits, each visit should be considered as 1 flow (Prof X participating in 3 coordination meetings abroad = 3 flows).

** In this direction Tempus funds may only be used for mobilities of EU partners and/or EU individual experts travelling to Partner Countries.

*** Institutional costs are eligible for "student study periods" **abroad** only.

NB: Be sure to include visa costs in your calculations of travel costs in this section.

Table 3: Equipment costs

the maximum budget allowed for equipment costs is 30% of the total eligible direct costs

Please give details and quantify items of equipment needed for the activities, listing them clearly by the partner country university/ies at which each item will be installed.
You should ensure that these details correspond to those given in the Outcome Tables. Please remember that only partner country universities may benefit from equipment funding.

LIST OF EQUIPMENT	Beneficiary university/ies	Budget in €
1. 1 x Video Projector 800; 16 x Personal Computers 11200; 1 x Laptops 780; 1 x Colour Printer/Copier/Scaner 800; Swich 150; Mathematica (software licence) 8300; Maple (software licence) 850, books (8000).		
2. 20 x Personal Computers 14000; 5 x Laptops 3900; 1 x Color Laser Printer 400, books (5000).		
3. 6 x Video Projectors 4800; 10 x Personal Computers 7000; 4 x Laptops 3120; 1 x Color Laser Printer 400, books (5000).		
4. 1 x Video Projector 800; 10 x Personal Computers 7000; 2xLaptops 1560; 1xServer 1500; 1 x Overhead Projector 250; 1 x Color Printer/Copier/Scaner 800; 1 x White blackboard 140, books (5000).	1. University of Sarajevo 2. University of Montenegro 3. University of Shkodra 4. University of Banja Luka 5. University of Belgrade 6. University of Skopje 7. University of Tuzla	1. 30880 2. 23300 3. 20320 4. 17050 5. 26300 6. 18560 7. 21126
5. 5 x Video Projector 4000; 20 x Personal Computer 7000; 2 x Server 3000; 20xMonitor 6000; 1xBackUp 4000; 1xUPS 1000; 2 x Scaner 400; 1 x Color Laser Printer 400; 5 x Screen 500;		
6. 1 x Video Projector 800; 10 x Personal Computers 7000; 2 x Laptops 1560; 1 x Color Printer/copier/scaner 800, 2xServer 3000; lisensed software 1000; MathSciNet access 2000; books 2400.		
7. 1 x Enclosure 2450; 2 x Inter Connest Swich 3100; 5 x Server 8000; 10 x SAS HDD 2300; 5 x Ethernet Expansion Card 350; 1 x Rack Cabinet 960; 2 DPI Rack 230; 1 x UPS Rack 3050; 4 x C19 metar line cord 76; 2 x DPI 32amp/250 V Front-end PDU 610.		
	TOTAL EQUIPMENT COSTS	**157536**

Table 4: Printing and Publishing costs

Please estimate the amount you would require to cover printing and publishing costs and give details on the type of material.

TYPE OF PUBLICATION AND N° OF COPIES (indicative)	Budget in €
1. Material for Workshop on PhD structure, 1500 copies	1. 400
2. Reports and papers from the Young researchers' workshop, 200 pages x 150 copies	2. 3000
3. Material for Workshop on core subjects and quality assurance, 700 copies	3. 200
4. Material for Workshop on Scientific and Labour market oriented goals: Mathematical modelling and Financial mathematics, 1500 copies	4. 400
5. PR of the JP, preparation and printing of booklets of JP, 350 x 20 pages	5. 3000
6. Preparation of material and booklets for institutional approval of modules in MM and FM at 7 WB universities, 280 x 20 pages	6. 2100
7. Preparation of material and booklets for institutional approval of harmonized PhD curricula at 7 WB universities, 280 x 20 pages	7. 2100
8. Material for the Academic Board meeting on core knowledge, 1500 copies	8. 400
9. Material for the Academic Board meeting on monitoring and core subjects syllabi, 1500 copies	9. 400
10. Preparation and distribution of the PR material for one day round tables on PhD curricula at 5 WB universities (5 x 2000 copies)	10. 2000
11. Material for the Academic Board final meeting, 1500 copies	11. 400
12. Material for four meetings of the CC, 3200 copies	12. 800
13. Course materials: 8 Courses x 27 Sets of course hand-outs	13. 8640
TOTAL PRINTING AND PUBLISHING COSTS	**23840**

Table 5: Other costs

Here you should anticipate any other eligible expenses, which might arise during your project, giving reasons for each item. Expenses listed here must be fully detailed and justified.

EXPENSES (please specify)	REASON (please specify)	Budget in €
1. bank fees and exchange losses 2. Inter-Tempus Coaching	1. bank transfers and exchange fees usually amount to 1.2% 2. with a realized or running Tempus project on doctoral studies, to be selected by Month 6, Y1	1. 9163 2. 1060
	TOTAL OTHER COSTS	**10223**

Table 6: Indirect costs – Overheads

the maximum budget allowed for indirect costs is 7 % of the total eligible direct costs

Please indicate the amount needed to cover indirect costs.

INDIRECT COSTS (please specify)	Flat-rate in €
1. communication costs, maintenance costs, office supplies, refreshments for workshops and meetings - 1500 per month	1. 45209
TOTAL OVERHEADS	**45209**

Table 7: Summary of co-financing requirements

Applicants must provide co-financing. Co-financing must be 5% of the total eligible direct costs.

Applicants should specify through which resources (their own, from other EU Institutions or EU Member States, other organisations) they intend to co-finance the project, and what the co-financing is likely to cover.

NOTABENE: Overheads/indirect costs, the costs of premises (purchase, rent, heating, maintenance, repairs etc.), the purchase of office and/or classroom furniture and exchange losses do not represent eligible costs and thus **may not be declared under** the heading **co-financing**.

Source of CO-FINANCING*	Justification**	Item***	Budget in €
1. Sarajevo University	1. PhD course	1. Inst. costs	1. 1140
2. Sarajevo University	2. one year license for software MATHEMATICA	2. Equipment	2. 2800
3. Belgrade University	3. PhD course	3. Inst. costs	3. 1140
4. Skopje University	4. PhD course	4. Inst costs	4. 1140
5. Tuzla University	5. PhD course	5. Inst. costs	5. 1140
6. Tuzla University	6. Further IT upgrade	6. Equipment	6. 2300
7. University of Montenegro	7. PhD course	7. Inst. costs	7. 1140
8. Shkodra University	8. MM module	8. Inst. costs	8. 1140
9. Banja Luka University	9. FM module	9. Inst. costs	9. 1140
10. Consortium	10. Young researchers workshop	10. Stay and travel	10. 7344
11. Consortium	11. Presentation of JP at MASSEE Congress	11. Stay and travel	11. 3000
12. Consortium	12. IT and Library upgrades	12. Equipment	12. 8632
13. WB universities	13. Preparation of material for institutional approval of PhD curricula	13. Printing and publishing	13. 4200
14. Governments' support	14. Synergy with BioMedMath network	14. Stay and travel	14. 3130
	TOTAL CO-FINANCED		**39386**

**E.g.: governmental subvention, organisation/institution's own resources*
*** E.g.: Preparation of training materials= 2 days x 7,5 hours x 3 persons x € 25*
****E.g: Equipment, staff costs, publication*

Summary of project funding requirements

The estimated amounts given for each heading should correspond to the totals in the tables which detail the budget breakdown for each category of expenditure and must be expressed in Euro (€).

In order to have this summary table properly calculated, please alternately tick/un-tick the two tick-boxes below.

Table 8:

PROJECT COSTS	**TOTAL**
A.1 Staff Costs	€ 256692
A.2 Travel costs, costs of stay and institutional costs	€ 317974
A.3 Equipment	€ 157536
A.4 Printing & publishing	€ 23840
A.5 Other costs	€ 10223
ELIGIBLE DIRECT COSTS (total A.1 – A.5)	**€ 766265**
A.6 INDIRECT COSTS (overheads, maximum 7% of the total eligible direct costs)	€ 45209
A TOTAL ELIGIBLE COSTS (total A.1 – A.6):	**€ 811474**

☒ ☒ *Once you have provided the amounts in the detailed financial tables on previous pages, **alternately click these two tick-boxes in order to update the totals in the table above and the verification messages below***

☑ Equipment Costs ceiling of 30% of the Eligible Direct Costs is respected
☑ Indirect Costs ceiling of 7% of total operational costs is respected

Table 9:

PROJECT FINANCE	**AMOUNTS**
A.1 Co-financing at least of 5% of the total eligible direct costs (from the own resources of the partnership)	€ 39386
Tempus grant	
A.2 Financing at most of 95% of the total eligible direct costs (from the EU)	€ 726879
A.3 Maximum 7% of the total eligible direct costs (from the EU)	€ 45209
TOTAL FROM TEMPUS (A.2 + A.3)	€ 772088
TOTAL PROJECT FINANCE (A.1 + A.2 + A.3)	**€ 811474**

☑ Total Costs requested from the Tempus programme are within the limits

☑ Co-financing amount respects the 5% minimum of Total Eligible Direct Costs

☒ I have verified the amounts reported in the summary table above (Table 8 - Summary of project funding requirements) and checked that these comply with the Tempus ceilings and thresholds specified in the Tempus IV Call for Proposals EAC/04/2008 and restated at the beginning of Section V – Funding Requirements.

NB: In rare cases the settings of the automatic calculation of the above summarising table might not work properly. Applicants are therefore advised to counter-check their figures, using a calculator.

Table 10: Breakdown of the project costs

In the table below applicants are asked to provide an overview of the indicative breakdown of the project costs amongst the partners.

Name of the partner institution	**Project costs in €**
1. University of Sarajevo	**150694**
2. Karl-Franzens University of Graz	**80830**
3. Sofia University St. Kliment Ohridski	**65230**
4. Institute of Mathematics and Informatics of the Bulgarian Academy of Sciences	**65230**
5. Mathematical Society of South-Eastern Europe	**18630**
6. University of Tuzla	**63550**
7. University of Banja Luka	**56640**
8. University of Belgrade	**95070**
9. Ss. Cyril and Methodius University of Skopje	**76530**
10. University of Montenegro	**75100**
11. University Luigj Gurakuqi of Shkodra	**63970**
TOTAL ELIGIBLE COSTS (A)	**€ 811474**

SECTION VI: ADMINISTRATIVE DOCUMENTS

On the following pages you will find two different forms to be filled out concerning the legal status of the applicant – the so-called "Legal Entities" forms:

(1) a form for "Public Entities"
(2) a form for "Private Companies"

Please note that:

Organisations and institutions whose founding act is based on public law (such as resolution, law, decree or decision etc.) have to fill in the form for "Public Entities".

whereas;

Not only companies but also organisations and institutions whose founding act is based on private law (such as registration, agreement, contract, declaration of association etc.) have to fill in the form for "Private Companies" – even if they are not a company.

LEGAL ENTITIES

PUBLIC ENTITIES

(Please select from the buttons below or fill in the related fields.)	
TYPE OF COMPANY PUBLIC INSTITUTION	
NGO (Non Governmental Organisation) ☐ YES ☐ NO	
NAME(S) UNIVERSITY OF SARAJEVO	
ABBREVIATION UNSA	
OFFICIAL ADDRESS Obala Kulina bana St. 7/II	
POSTAL CODE 71000	P.O. BOX
CITY SARAJEVO	
COUNTRY BOSNIA AND HERZEGOVINA	
VAT NUMBER 200494560007	
PLACE OF REGISTRATION Cantonal Court Sarajevo	
DATE OF REGISTRATION 17 / 06 / 2002	
REGISTRATION NUMBER UF/I-452/02	
PHONE +387 33 663 392	FAX +387 33 663 393
E-MAIL kabinet.rektora@unsa.ba	
CONTACT PERSON Prof. Dr. FARUK CAKLOVICA	
THIS "LEGAL ENTITY" FORM SHOULD BE FILLED IN AND RETURNED TOGETHER WITH:	
• A copy of the resolution, law, decree or decision establishing the entity in question; • Or, failing that, any other official document attesting the establishment of the entity.	
DATE 24/04/2008 (dd/mm/yyyy) NAME AND FUNCTION OF THE AUTHORISED REPRESENTATIVE Prof. Dr. FARUK CAKLOVICA, Rector SIGNATURE	*STAMP*

LEGAL ENTITIES

PRIVATE COMPANIES

(Please select from the buttons below or fill in the related fields.)	
TYPE OF COMPANY	
NGO (Non Governmental Organisation) ☐ YES ☐ NO	
NAME(S)	
ABBREVIATION	
ADDRESS OF THE HEAD OFFICE	
POSTAL CODE	P.O. BOX
CITY	
COUNTRY	
VAT NUMBER	
PLACE OF REGISTRATION	
DATE OF REGISTRATION Day / Month / Year	
REGISTRATION NUMBER	
PHONE	FAX
E-MAIL	
CONTACT PERSON	
THIS "LEGAL ENTITY" FORM SHOULD BE FILLED IN AND RETURNED TOGETHER WITH:	
• a copy of any official document (e.g. official gazette, register of companies, etc.) showing the contractor's name and address and the registration number given to it by the national authorities; • a copy of the vat registration document if applicable and if the vat number does not appear on the official document referred to above.	
DATE (dd/mm/yyyy) SIGNATURE	

FINANCIAL IDENTIFICATION

(To be filled in by the Grant Applicant)	
ACCOUNT HOLDER	
NAME PRIRODNO-MATEMATICKI FAKULTET SARAJEVO	
ADDRESS Zmaja od Bosne 33-35	
TOWN / CITY SARAJEVO	POSTCODE 71000
CONTACT PERSON KENAN SURULIZ	
TELEPHONE +387 33 250505 or 250510	
E-MAIL ksuruliz@pmf.unsa.ba	
VAT NUMBER 200289040009	
BANK	
BANK NAME FIMA BANKA DD SARAJEVO	
BRANCH ADDRESS Kolodvorska 5	
TOWN / CITY SARAJEVO	POSTCODE 71000
BANK/BRANCH CODE	
ACCOUNT NUMBER 0002360922	
SWIFT	
IBAN BA391370425030048549	
REMARKS:	
BANK STAMP + SIGNATURE of BANK REPRE-SENTATIVE:	DATE + SIGNATURE of ACCOUNT HOLDER: (Obligatory)

SECTION VII: CHECKLIST

Before submitting your application by e-mail, please make sure that it is complete and tick the boxes accordingly:

1) Section I: the Declaration on Exclusion and Selection Criteria is completed	☒
2) Section I: the Agreement on Publication is completed	☒
3) Section I: the Endorsement letters are completed	☒
4) Section I **if applicable**: the Declaration for Qualifying as Public Body is completed	☒
5) Section I **If applicable**: all the National Member Entities are listed and contact persons are indicated	☐
6) Section II: the Basic Data on the Project is provided	☒
7) Section II: all the Partners and Individual Experts are listed and contact persons are indicated	☒
8) Section III: the Description of the Project covering all questions is provided	☒
9) Section IV: the Project Summary Sheet is complete	☒
10) Section V: the tables regarding Funding Requirements are complete	☒
11) Section VI: the Legal Entities Form is filled in	☒
12) Section VI: the Financial Identification Form is filled in	☒

After obtaining your receipt of your project registration number and before submitting those supporting and administrative documents where originals are required, please make sure that they are complete and tick the boxes accordingly:

1) The cover letter indicating the registration number is enclosed.	☐
2) Section I: the Declaration on Exclusion and Selection Criteria is signed and stamped or sealed	☐
3) Section I: the Agreement on Publication is signed and stamped	☐
4) Section I: the Endorsement Letters are signed and stamped or sealed	☐
5) Section I: the documents for the evaluation of the Technical Capacity are enclosed.	☐
6) Section I **if applicable**: the Declaration for Qualifying as Public Body is signed and stamped or sealed	☐
7) Section I **if applicable**: Profit and Loss Accounts, together with the balance sheet for the last three financial years for which the accounts have been closed, are enclosed	☐
8) Section VI: the Legal Entities Form is signed and stamped	☐
9) Section VI: the Financial Identification Form is signed and stamped	☐