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#### Education, Audiovisual and Culture Executive Agency

#### **Erasmus Mundus and External Cooperation**

Prof. Andrei Marga Universitatea Babes-Bolyai (Babes-Bolyai University) Mathematics and Computer Science Mihail Kogalniceanu, 1 RO - RO-400084 Cluj-Napoca Romania

Brussels, 13/08/2010 EACEA/P4/JF/SM/dm D (2010) 303679

Re: Erasmus Mundus Action 1.A - Joint Masters Courses - Call for Proposals

**EACEA/29/09** 

Title: High Assurace Software

Ref.: 512175-1-2010-1-RO-ERA MUNDUS-EMMC

(Please quote this number in all correspondence)

Dear Sir/Madam,

You have submitted a proposal under Action 1.A in the framework of the Erasmus Mundus Call for proposals EACEA/29/09.

I regret to inform you that your proposal has not been selected.

The Agency received 181 proposals under Action 1.A – Joint Masters Courses. 29 of these proposals were selected for funding, and a further 3 are on the reserve list. All eligible proposals were assessed with the assistance of independent academic experts on the basis of the selection and award criteria listed in the Call for proposals.

The selection decision is based on the quality of the proposal, its relative position in comparison with the other proposals received and the budget available.

The table below provides you with an indication of the overall and relative quality of your proposal which was included under Group III

Group		Number (% of eligible proposals)
I	Proposals of very good quality (score higher than 75 points out of 100)	65 proposals (39,4%)
II	Proposals of good quality (score between 60 and 75 points out of 100)	70 proposals (42,4%)
III	Proposals of weak quality (score less than 60 points out of 100)	30 proposals (18,2%)
Ineligible proposals		16 proposals (8,8% of all proposals received)

Enclosed you will find the consolidated version of the two independent academic experts' assessments of your proposal. Please take account of the fact that most of the assessments were written by non-native speakers and that the Agency cannot comment on these independent assessments.

A new Erasmus Mundus Action 1 Call for proposals will be published by the end of 2010 with a deadline of 30 April 2011. Should you wish to submit a new proposal, I recommend you to consult the EACEA website in order to be informed about the publication of the relevant application documents.

(http://eacea.ec.europa.eu/erasmus\_mundus/funding/higher\_education\_institutions\_en.php)

You may also contact the Erasmus Mundus National Structure located in your country in order to be provided with assistance and support in the preparation of a new proposal. (<a href="http://ec.europa.eu/education/erasmus-mundus/doc1515">http://ec.europa.eu/education/erasmus-mundus/doc1515</a> en.htm)

I take the opportunity to thank you for the interest you have shown in the programme and the work you have invested in preparing your proposal.

Should you require any further information, please contact us through our functional mailbox <u>EACEA-Erasmus-Mundus@ec.europa.eu</u>

Sincerely Yours,

Joachim Fronia Head of Unit

7. Froma

Annex: Comments and recommendations from the independent academic experts who assessed your proposal.



# Joint Masters Course Evaluation Report

Proposal number:

512175-EM-1-2010-1-RO-ERA MUNDUS-EMMC

Proposal title:

High Assurace Software

Coordinator:

Dr. Anna Soos

Applicant organisation:

Universitatea Babeş-Bolyai (Babeş-Bolyai University)

#### Award Criteria

A.1 Academic quality - Course content (30 % of the max.

The HAS proposal identifies an area of very high public interest, concerning the provision of 'high assurance' software - software we can rely on, manage and trust. Beyond this generally accepted statement of need, the needs analysis focuses mainly on complexity of production and the resulting unreliability, but does not extend to the social and economic impacts of untrustworthy or undependable software.

The proposal objectives are directly supportive of the aim to improve dependability, but the generic explanation of needs is not further supported by sufficient detail relating to this proposed programme, and so it is not completely clear why this master is able to contribute to the innovation and competitiveness in this very wide field.

The HAS proposal properly identifies a lack of courses with a general approach to software assurance as a general discipline, although it fails to identify and consider comparable/relevant initiatives addressing safety critical systems and other related domains of specialist interest such as security.

The courses and modules are well described and ECTS values given, but apart from lists of modules at each institution, the overall structure and rationale is not sufficiently described.

The value and relevance of the mobility component, and the importance of the mobility with respect to learning outcomes, are not sufficiently clarified.

The topics covered are topics that appear in many ICT masters programmes, and so the lack of coherence of the 'High Assurance' theme in course structure and content means that although graduates will be highly employable, it is not clear how they will gain advantage in the target area (high assurance software). In general the consortium and academic staff appear well qualified for the delivery of the proposed modules. However, the expertise at the applicant organisation is not so fully elaborated.

The proposal mentions several existing industrial and research co-operations which are not very well detailed, and while the objectives and commitment are quite clear, it is not presently easy to see exactly how these links will be made available for student interaction with professional, socioeconomic and research communities. The consortium could usefully clarify specific economic and cultural actors that will contribute to the EMMC development an delivery - exactly who and how.

#### A.2 Course integration (25% of the max. score)

The proposal only briefly addresses the integration of the course and there is not sufficient explanation of integration activity or rationale / scheme. As written, the proposal suggests students can pick and mix modules at different universities. These modules are relevant to the theme, but they are not explicitly integrated by a clear and common scheme. The consortium do not sufficiently elaborate the structure and content of the curriculum, or the level of participation and institutional commitment of individual partners to the course. The proposed programme lacks sufficient coherence of the joint programme and its different courses, modules, and mobility tracks.

According to the proposal, there are explicit declarations from some partners concerning awarding of degrees, and also some uncertainties concerning approvals yet to be obtained. The aim is to award double degrees, with joint degrees to be developed later between some partners, but the text is somewhat confused and the status of proposed degrees should be clarified.

Joint application, selection and admission processes are clearly but briefly described. The proposal does not sufficiently elaborate how the consortium will ensure the recruitment of the best candidates and the resolution of any equity issues. The organisation of staff as an examination body is presented,

but the joint examination methods and mechanisms are not sufficiently described, and so it is not clear how each module is examined (method), and the mechanism for translating grades to ECTS is not clearly presented.

The student participation costs are clearly shown, but the basis of calculation is not made sufficiently clear, nor is the way in which the consortium have reached agreement. Distribution of funds between participants is very clearly presented. The fee setting is said to be reviewed each year and adjusted to meet local conditions. This may be problematic for longer term promotion and finance planning.

## A.3 Course management, visibility and sustainability measures (20 % of the max. score)

The co-operation mechanism provides a clear general delegation of roles and responsibilities for deployment, operation and governance of the proposed programme. Concerning partner contributions, only the financial mechanism is sufficiently described. Provision of staff, resources, and other support for teaching and allocated governance roles is not sufficiently addressed. The further commitment of institutions should be fully clarified, including supporting detail of the quality and solidity of the management and monitoring measures envisaged to ensure the efficient functioning of the joint programme.

The proposal does not clarify how the grant will be used and distributed among the partners, nor does it explain any possible additional funding, from the partners, that will be dedicated to the EMMC. An interesting point of the proposal is the brief mention of funding from the industrial partners, but this is not very concrete in the identification of the specific industrial partners, or the manner and level of contribution. Apart from a statement of sustainability objectives and good intentions in the proposal, the sustainability perspective lacks any sufficiently detailed scheme or operational strategy.

Course promotion nominates a good range of suitable channels and methods for addressing target students, but does not yet realise any of it through web installation, identification of target constituencies / conferences / specific network etc.

#### A.4 Students' services and facilities (15% of the max. score)

The pre-enrolment information to candidates and the delivery method are well defined at a general level, but could be more detailed. The consortium do not explain in detail the information and assistance they will provide to the students in order to address all issues students will may face when joining the EMMC.

The proposals provides a student agreement that appears clear and well designed.

Local student services are only minimally described and do not reflect the expectations of EM good practice.

The presented insurance scheme mixes, in an unclear manner, the national healthcare systems and an insurance chosen by the members of the consortium, whose nature and details are not defined. While the scope of the intended insurance scheme appears to cover the major areas of concern to students, a specific insurance provider, package and costs are not presented.

The language policy is not clear because it states that English will be used for all teaching 'primarily', and indicates that courses may be available in local language too. Language tuition is provided, and a basic level of English is required for entry, but the assessment method is not stated. Networking is planned to include specific events and actions to promote contact between EMMC students and local students, but this aspect lacks detail.

### A.5 Quality assurance and evaluation (10 % of the max. score)

The approach to internal QA appears highly appropriate and ensures that questionnaires and interviews capture the impressions and value judgments of all students in each semester. External evaluation relies on national QA procedures already in place. This appears relevant since course modules are evaluated as part of local masters programmes. In addition, the EMMC proposes to organise an advisory board of industrial partners whose goal will be to assess and help improve existing curricula. However, apart form the mention of national assessment, the proposal does not identify concretely the external evaluation agencies and the advisory board of the industrial partners.

#### Global comments

This proposal properly recognises the critical issue of software reliability. However, the lack of integration means that despite having modules of relevance to offer from a set of suitable institutions, the consortium lacks a coherent approach to « high assurance » software education. The overall rationale is not completely clear, and certain sections of the proposal lack clarity and explanation.

The needs of the market are explained too generically and it is not clear why this master programme is able to contribute to the innovation and competitiveness in this very wide field (there is a lack of specific relationship between course content, produced skills, and market demands). The description of the structure of the joint programme presents the contents of all the modules, but does not offer a rationale for integration, or sufficiently detail the value of student mobility in terms of learning outcomes.

The joint application, selection and admission procedures are not sufficiently detailed to demonstrate a fully developed approach.

Student support prior to, and during, the course lack detail in several important areas.

Insurance and financial arrangements also lack clarity and appropriate detail.