UNIVERSITÄT SIEGEN

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Master of Cyber Physical Systems

International Master of Science on Cyber Physical Systems

DISSEMINATION AND EXPLOITATION PLAN D5.1

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Table of Contents

1   Introduction

1.1   Abstract

The Dissemination and the Exploitation Plan (DEP) is a compulsory report that participants of Erasmus+ projects are required to submit to the EC. The DEP, which is presented in this report, summarises the consortium's strategy and concrete actions to disseminate, exploit and protect the foreground generated by a project and should serve as a guideline to the consortium for the dissemination and exploitation activities to be carried out in the context of the MS@CPS project. Project website will be available to anybody who wants to know about the activities that have been undertaken in the framework of the MS@CPS project and to make it efficient in terms of the utilization of the project results. The two major points discussed by this deliverable are the dissemination and the exploitation actions, which are separately reported in Dissemination Plan and Exploitation Plan.

Dissemination Plan: describes the dissemination measures and its content that will be made available in the public domain thus demonstrating the added value and positive impact of the project on the European Union and partner countries. Dissemination activities are going to be performed during the whole project lifetime. This deliverable aims at presenting a suitable dissemination plan for making the project known. Based on the plan, target groups for dissemination in MS@CPS are identified and the subjects and matters of these actions are described. The management as well as the tools and activities are defined and the partner roles are shown. As the resources dedicated to dissemination are restricted, cost-effective ways were chosen to achieve maximum publicity for the project and its results.

Exploitation Plan: focuses on benefiting from MS@CPS exploitable results in initiating the master program and running the first round. A necessary step before running the programme would be getting necessary accreditation. Formal accreditation work will planned in the exploitation plan to have a unique start of the master program at partner countries.

1.2   The scope of the document

The scope of this deliverable is planning the activities for dissemination and the procedures for exploitation. This deliverable introduces a schedule to be followed for reaching a uniform start of master program teaching in the first round among the partner countries in Palestine, Jordan and Tunisia.

1.3   Objective

The objective of the MS@CPS Dissemination and Exploitation Plan is to identify and organise the activities to be carried out during the project lifetime in order to promote the exploitation of the project's results and amplify dissemination of attained knowledge of the project. For this reason, it will clearly identify the target-group of each dissemination activity.

PTC, as the leader of this deliverable, has developed the DEP. However, all project partners are involved in all dissemination and exploitation activities to support access, foster awareness, and transfer results, especially in their own countries and communities. It will be reviewed throughout the project in order to assess the effectiveness of different dissemination activities. To this end, it will suggest and explore a variety of means to improve the MS@CPS deliverables.

1.4   Terminology

Accreditation: is a process of validation, in which colleges, universities and other institutions of higher education are evaluated. A peer review board, whose members include faculty members from various

accredited colleges and universities, sets the standards for accreditation. In this report, we focus on accreditation of a study program.

AQAC: *Ac*creditation and Quality Assurance Commission in Palestine.

CPS: Cyber Physical Systems.

DEP: Dissemination and the Exploitation Plan.

GDUR: General Directorate of University Renovation in Tunisia.

HEAC: Higher Education Accreditation Commission in Jordan.

MHESR: Ministry of Higher Education and Scientific Research in Tunisia.

NSC: National Sectoral Commission in Tunisia.

Partner Countries: Countries where the program to be implemented (Palestine, Tunisia, Jordan).

Program Countries: EU partners (Germany, Sweden, UK).

Program: The master program (CPS) to be implemented.

SharePoint: The project interanet platform used by the consortium for on-line collaboration.

1.5 MS@CPS Stakeholders

MS@CPS targets a wide community including:

- Graduates in computer engineering, electronic engineering, information technology and computer science or other related by fields.
- Academic staff and scientific community in the aforementioned fields.
- Industry mainly computer companies in hardware or software fields.
- Society.

The SharePoint platform of the project includes detailed list of stockholders for each partner.

1.6 Relation to other deliverables

The DEP defines a roadmap for all dissemination and exploitation activities. So D5.2, D5.3, D5.4 and D5.5 are related to this deliverable.

1.7 Relation to work-packages

The dissemination activities relies on inputs from all work-packages to cover them in the media and make the society aware of them. The exploitation activity of accreditation is dependent on the outcome of work-package 2 as it needs a study plan of all courses for the completion of the accreditation process. Moreover, the running of the first round relies mostly on the outcomes of work-package 2.

2 Dissemination Plan

2.1 Definition

In "Erasmus + Programme Guide" the term "Dissemination" is defined as followed:

"Dissemination is a planned process of providing information on the results of programmes and initiatives to key actors. It occurs as and when the result of programmes and initiatives become available. In terms of the Erasmus+ Programme this involves spreading the word about the project successes and outcomes as far as possible. Making others aware of the project will impact on other organisations in the future and will contribute to raising the profile of the organisation carrying out the project. To effectively disseminate results, an appropriate process at the beginning of the project needs to be designed. This should cover why, what, how, when, to whom and where disseminating results will take place, both during and after the funding period."

2.2   Objective

Dissemination activities ensure the establishment of collaborative links with the academic community through the organization of workshops, seminars, open days and contact with other projects that have similar nature.

2.3   Target audience

The MS@CPS dissemination strategy covers both internal and external communication and dissemination, each of which is discussed below.

For internal purposes, this dissemination plan provides members of the MS@CPS consortium with an effective and efficient blueprint to follow in disseminating the work and the results of MS@CPS. Internal communication will itself be conducted via SharePoint, mailing-lists, monthly teleconferences, and periodic face-to-face meetings. Shared documents (including administrative project documents, reports and publications) are stored through SharePoint platform, giving all project partners an access all the times. The project website focuses on external audiences.

The external objective of the MS@CPS dissemination plan is elaborating the consortium's strategy for dissemination activities that target stakeholders. Dissemination activities aims to:

- Spread project results along with the gained experience within the project consortium and outside the project consortium to potential universities and industrial stockholders.

- Organize informative sessions, such as open house days at partner universities to acquaint future potential students and academic staff with the project.

- Continuous contact with local industry by all partners in the corresponding partner countries.

2.4   Dissemination documents

Dissemination documents will include:

2.4.1   Graphic identity: Erasmus+ logo which is shown below

In "Erasmus + Programme Guide" the term "Visibility" is defined as followed:

"VISIBILITY OF THE EUROPEAN UNION AND OF THE ERASMUS+ PROGRAMME

Beneficiaries shall always use the European emblem (the 'EU flag') and the name of the European Union spelled out in full in all communication and promotional material. The preferred option to communicate about EU funding through the Erasmus+ Programme is to write 'Co-funded by the Erasmus+ Programme of the European Union' next to the EU emblem."

2.4.2   Layout of the documents

All documents (except drafts) should follow the following layout:

The developed MS@CPS PowerPoint template will be used at internal and external events when presenting the MS@CPS project and/or its outcomes. For PowerPoint presentations:

➢ Title 1 (Times New Roman font, size 32);
➢ Text (Times New Roman font, size18).

For reports:

➢ font: Calibri, size: 11;
➢ a cover page with the following elements:
  o the title of the document;
  o the status of the document.
  o header (EACEA logo, Project logo, Coordinating University logo);
  o footer (logo of all project partners);
  o Project title;
  o Page number.

2.4.3   Text-based information: flyers, posters, policy briefs, policy recommendations

Flyers and poster are designed according to event and they should be available for download at the project website. They should include project logo and the EU sponsorship logo.

2.5   Dissemination tools

2.5.1   Electronic mailing lists and contact list

Internal Lists: An electronic mailing list has been established for the MS@CPS project, which aims to provide a mechanism for internal project communications. Currently the list includes members of the project team from each partner university. Internal mailing lists are created for members of each work-package.

External Lists: For each dissemination activity, the organizer is required to provide attendance sheet that contains contact information of the attendants. Moreover, contact information of all related stockholders and key players will be gathered and stored on the web-based collaborative platform of the project.

2.5.2   Website

The dedicated MS@CPS website – www.ms-cps.eu – will be set up following the EU Project Websites – Best Practice Guidelines. The website plays an important role in dissemination, which includes:

• Giving information about MS@CPS and its activities including contact details, background information, events (seminars, workshops, meetings) etc.

• Providing instructional materials as discussed above (the web in this respect acts as a principal means of publication).

• Publishing frequent news and updates to keep the community informed.

For internal communication, a web-based collaborative platform (SharePoint) offered by IT department – University of Siegen is used by MS@CPS members as the principal means of distributing administrative, policy, and procedural documents. In order to keep the consortium area confidential, this platform is made password protected.

2.5.3   Social Media

Social networking is part of the MS@CPS communication strategy. Currently, Facebook and LinkedIn are used to disseminate relevant information.

2.5.4   Newsletters

MS@CPS will have a dedicated project newsletter; three editions in total (M12, M24, and M36). The MS@CPS newsletter will highlight project results and include project news, external news and relevant information. The newsletter will be sent out to the project partners, stakeholder database contacts, and any other interested individuals. The MS@CPS project website and the collaborative platform will store the newsletter archive.

2.5.5   Press Releases

The coordinator will produce the project press releases in English and partners will translate and adjust it to local context for sharing it with appropriate media outlets (trade press, web portals). News of the project will be disseminated regularly over the website of each partner. They will be issued to ensure that industry, civil society organisations, policy-making authorities, and the wider community are aware of the project, its objectives and, later in the project, its outcomes. The strategy is intended to ensure that there is publicity and media coverage at local, regional and at the European levels. PTC and the MS@CPS partners have several existing channels and networks for disseminating news, which will ensure a broad awareness of the project across the spectrum of relevant stakeholders. If a partner is willing to make a press release, it should be sent to the coordinator and the leader of WP5 (dissemination and exploitation) before sharing it.

2.5.6   Other Promotional Material

Some promotional concepts have been outlined in the Description of Action, including: (1) a poster for use at external events in the first year of the project; (2) a role-up for face to face meetings (3) a video to highlight the project's objectives for release after the first year. Other promotional material can be developed if required and depending on available budget.

2.5.7   Scientific (Peer Reviewed) Publications

Partners shall endeavour to publish the project's findings in professional journals, international conferences and chapters in books.

2.5.8   Events

A number of brokerage events, technology demonstrations and training events are outlined in the proposal. Conferences, workshops and seminars will be organised by the MS@CPS project to achieve the following objectives:

- Raise awareness about MS@CPS activities, results, resources, etc.;

- Act as training venues e.g. for disseminating instructional material as required by a particular stakeholding community;

- Act as fora for more public discussion of research, development, collections, standards, or other strategic and substantive issues of interest to MS@CPS and the wider community.

3   Exploitation Plan

3.1   Definition

In "Erasmus + Programme Guide" the term "Exploitation" is defined as followed:

"Exploitation means to use and benefit from something. For Erasmus+ this means maximising the potential of the funded activities, so that the results are used beyond the lifetime of the project. It should be noted that the project is being carried out as part of an international programme working towards lifelong learning and supporting European policies in the field of education, training, youth and sport. Results should be developed in such a way that they can be tailored to the needs of others; transferred to new areas; sustained after the funding period has finished; or used to influence future policy and practice."

3.2   Objective

A trivial exploitation of the outcomes of WP5 is implementing MS@CPS at partner universities, which can be achieved through:

- Obtaining the approval and accreditation of the relevant higher education authorities for each partner country university.

- Running the first round of the master's program locally with joint teaching across universities using e-learning technologies.

- E-learning sessions will be organized between the EU and the partner countries.

- Ensure sustainability of the major project's results through the appropriate exploitation planning.

- Identify obstacles which might prevent from achieving a successful dissemination and exploitation to stakeholders, particularly key socio-economic actors and decision-makers.

- Actively engage the target groups and continuously adjust the project services and results so that they fit the constantly evolving environment in the business and higher education sectors.

Project partners are strongly committed to the project aims and objectives. They acknowledge the importance of entrepreneurial development for their institutions and regions as well as for their image and internationalization strategies. They already have contacts with potential private and public sectors.

3.3   Local web page at each partner university domain for admission

Each HEI at partner countries in the project is committed to initiate the master program. Therefore, a local web page will be established at each partner university domain for providing information on admission rules, application procedures, tuition fees, etc.

Table 1: Local web page at each partner university

University	Proposed program link
Al-Quds University	https://www.alquds.edu/en/postgraduate/mscps.html
Palestine Technical College - Deir El-Balah	http://www.ptcdb.edu.ps/site/ms-cps

German Jordanian University	http://www.gju.edu.jo/content/admission-and-registration-department-425
Tafila Technical University	http://www.ttu.edu.jo/admission
University of Sfax	http://www.isimsf.rnu.tn/
Carthage University	http://www.issatm.rnu.tn/

3.4   Plan for accreditation process

To have a successful exploitation plan for accreditation process, we start first with identifying the national commission, which is responsible for the accreditation of university programs in each partner country. We identify the needed documents for accreditation and prepare a schedule for accreditation. We list the accreditation procedures in each country to estimate the needed time and efforts to have a uniform reach for accreditation in partner countries.

3.4.1   Local accreditation authority

In the following table, all accreditation authorities in Palestine, Jordan and Tunisia are identified with their contact details.

Table 2: Accreditation authorities in Palestine, Jordan and Tunisia

Country	Accreditation Authority/Commission/Agency
Palestine	Accreditation and Quality Assurance Commission Address : Ramallah, Al Masyoun Phone : 0097222980140 Fax : 0097222980139 Web : http://www.aqac.mohe.gov.ps Email : aqac.head@mohe.gov.ps
Jordan	Accreditation and Quality Assurance Department Address : Amman Madaba Street, P.O. Box 35247, Amman 11180 Jordan Phone : 009624294090 Fax : 00962 6 430 0215 Web:http://www.gju.edu.jo/content/quality-assurance-and-accreditation-department-3876 Email : aqad@gju.edu.jo
Tunisia	General Directorate of University Renovation-National Sectoral Commission Contact person : Pr. Samir ben Ahmed President of the national commission of computer science Phone : 0021698 829 703 Web : http://www.uni-renov.rnu.tn/ Email : samir.benahmed@fst.utm.tn

3.4.2   Needed documents and procedures for accreditation

We define the deadlines and procedures for accreditation in each country.

Palestine

Deadlines for submitting the documents and notification dates

- Applications for accreditation should be submitted to the Accreditation and Quality Assurance Commission (AQAC).
- Applications for accreditation are accepted annually in two periods: the first from 1 May to 30 June and the second from 1 November to 31 December. However it was indicated by AQAC in one workshop that programs developed with the support of Erasmus+ projects can be submitted anytime during the year but they need to be informed of the program sometime before.

Detailed accreditation procedure defined by the national accreditation board

- The accreditation starts by the approval at the university itself were the program will be implemented.
- Once approved, the application is submitted to AQAC electronically and in hardcopy.
- AQAC will send the application to be assessed.
- The initial assessment shall be sent to the institution for consideration and modifications.
- The organization's amendments are sent to the evaluators for the final assessment of the file.
- After the end of the final evaluation process to the Board of the Commission to take the appropriate decision to approve or postpone the program until specific conditions are provided or rejected. The applicant institution shall have the right to appeal against the decision of the Board in accordance with the system of appeal of the Commission.
- Ensure that the file meets all the requirements and conditions, including payment of the fees prescribed in the financial system.

Jordan

- Applications for accreditation are accepted anytime during the year by the accreditation commission (HEAC), however the deadline by ministry of higher education to establish a new program is the end of February of each year.
- The application of accreditation is reviewed by the accreditation committee in the university
- The accreditation application is being submitted to HEAC (the national accreditation committee) in hardcopy in Arabic language, for the program to be accredited or reaccredited or to raise the capacity (Number of enrolled students) of the program
- Payment are delivered to HEAC by the University for the Accreditation Process
- A committee is formed by HEAC to visit the school where the program is accredited to review the program and accredit it
- The decision of the accreditation is sent to the university from HEAC about the accreditation result

Tunisia

- For the accreditation process, of any program, there are three steps to be followed.
- First, the scientific council of the institution must approve each defined curriculum. That means that the director of the institution (or the person that defined the program) has to present and discuss the program with the members of the scientific council of the institution.
- Once the program is approved at this local level, the director of the institution has to present the curriculum at the University scientific council. This council evaluates the proposed curriculum at the regional level. That means that there are some conditions that have to be respected, in addition to scientific ones, such as the fact that there is no other same program at the university level.

- The final step of the accreditation process is at the national level. The national accreditation committee, for a given field, is a committee composed by the well-known professors in this field of expertise. They take into account the needs and the priorities of the country and try to give their point of view regarding each presented program. At this level, the decision is always to approve the program with minor revisions.
- Applications for accreditation from licensed educational institutions shall be accepted any time during the year.
- The application for a new master is made online through the platform of the General Directorate of University Renovation. There are no fixed sessions besides some exceptions. Each institute has an account on the platform to submit all the necessary documents online. A special commission starts the evaluation of the master's degree. There is two evaluations; a primary assessment and a final assessment. The duration of the study takes from 3 to 6 months.

The Ministry of Higher Education and Scientific Research (MHESR) has an interactive web platform http://www.uni-renov.rnu.tn for the management of accreditations (License, Master and PHD) allowing:

- Institutions and universities:
  - to introduce in an interactive way the accreditation files of the training courses;
  - to improve the visibility of the curricula and to facilitate accessibility by the users concerned by providing them with the necessary information, services offered and the necessary documentation;
  - to share the holdings with users (academics, professionals and students).
- the National Sectoral Commission (NSC) which is responsible for the evaluation of the training courses:
  - to study the applications for authorization;
  - to evaluate and announce the result.
- The General Directorate of University Renovation (GDUR)
  - to assign the requests for authorization to the relevant committee;
  - to coordinate between commissions, institutions and universities.

3.4.3 Requirements and required documents

The following requirements are identified for each country:

Palestine

- Filling accreditation application
- The program study plan
- Outline for all courses
- Resumes of faculty members
- List of labs
- Justification for establishing the program
- Feasibility study

Jordan

- Filling accreditation application
- The program study plan
- Publications for program faculty

Tunisia

- Filling accreditation application
- The program study plan

- online application form filled and signed
- Graduate follow-up method (survey questionnaire)
- Teaching Evaluation Charter
- Quality approach or the quality manual if it exists.
- A quality charter of internships
- An internship organization sheet
- A project organization sheet

3.5   Plan for running the first round of MS@CPS

The scheduled dates for running the first round jointly at the same time are summarized for each partner:

Table 3: Schedule for running first round at PTC

Scheduled Activity at PTC	Proposed Date
Announcing the application opening at corresponding website	1/6/2020
Closure of application reception	1/9/2020
Announcing admission results	10/9/2020
Date for start of teaching in the first round	15/9/2020 Beginning of First semester 2020/2021

Table 4: Schedule for running first round at AQU

Scheduled Activity at AQU	Proposed Date
Announcing the application opening at corresponding website	July 2020
Closure of application reception	Mid August 2020
Announcing admission results	September 2020
Date for start of teaching in the first round	Mid September 2020

Table 5: Schedule for running first round at GJU

Scheduled Activity at GJU	Proposed Date
Announcing the application opening at corresponding website	June 2020
Closure of application reception	Mid August 2020
Announcing admission results	September 2020
Date for start of teaching in the first round	Mid September 2020

Table 6: *Schedule for running first round at TTU*

Scheduled at Activity TTU	Proposed Date
Announcing the application opening at corresponding website	July 2020
Closure of application reception	Mid August 2020
Announcing admission results	September 2020
Date for start of teaching in the first round	Mid September 2020

Table 7: *Schedule for running first round at SFU*

Scheduled Activity at SFU	Proposed Date
Announcing the application opening at corresponding website	May 2020
Closure of application reception	Mid August 2020
Announcing admission results	September 2020
Date for start of teaching in the first round	Mid September 2020

Table 8: *Schedule for running first round at CU*

Scheduled Activity at CU	Proposed Date
Announcing the application opening at corresponding website	May 2020
Closure of application reception	Mid August 2020
Announcing admission results	September 2020
Date for start of teaching in the first round	Mid September 2020

Based on the above schedule and based on EU recommendations to start the program before the last year, all partner countries are committed to start the program on the early September. The consortium intends to finalize the accreditation applications in November 2019 to allow for nearly six months accreditation procedures. This plan insures start the first round of teaching in classes of the master program in September 2020.

3.6   Identifying obstacles

One of the challenges, which MS@CPS might face in this work-package, would be delays in getting the needed accreditation. This challenge can be tackled by starting the accreditation process as early as possible.

3.7 Links with similar projects

During preparation phase of the MS@CPS proposal efforts were done to avoid duplication with similar master programmes and to promote synergies with existing ones. After the start of the project, a systematic review of existing computer science master courses, along with information on the structure of the programs was conducted in D1.1. Dissemination activities will base on a deep analysis of existing master programmes on the relevant fields.

3.8 Use of the Erasmus+ project results platform

The Erasmus+ Project Results Platform can be consulted at:

http://ec.europa.eu/programmes/erasmus-plus/projects/

Its database gives visitors access to descriptions, results and contact information of all projects funded under the Erasmus+ programme and some of the projects funded under its predecessor programmes in the field of education, training, youth and sports.

The End