



Co-funded by the
Erasmus+ Programme
of the European Union

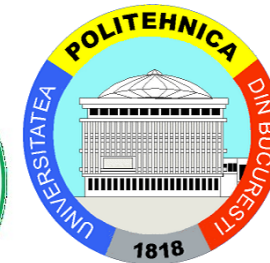


WP4 Report

Livia LAZAR



Universidade do Minho



Curriculum Development
of Master's Degree Program in

Industrial Engineering for Thailand Sustainable Smart Industry



WP4 – List of documents

Abbreviation	Full name of document
QCMP –V4	Quality Control and Monitoring Plan
QF-DTM-V3	Deriverable Template
QF-QFT-V1	Quality Form Template
QF-QCM-V4	Internal Quality Controls and Monitoring
QF-DES-V5	Deliverable Evaluation
QF-PSM-V1	Partner Slide Master
QF-WSM-V1	Work Package Slide Master
QF-PDL-V1	Project Documents List
QF-ECI-V1	Evaluation Criteria Identification
QF-WEB-V2	Website questionnaire
QF-EVE-V1	Event Evaluation





Quality Control and Monitoring Work Plan

QCMP (V4) - Quality Control and Monitoring Plan

Main changes from the previous revision:

- Review QCMP (dissemination level, abbreviation system – subsection 5.1.3)
- Review QF_DTM -version 3 (clarifications on: dissemination level, dissemination responsible, text style, abbreviation system)
- Review QF-QCM -version 4 (planned versus actual start / end date)

The QCMP constitutes a working document which can be adapted and revised throughout the implementation of the project upon agreement by all parties.





Quality Control and Monitoring Work Plan

The abbreviation system for the naming of project documentation:

For plan, the code will be XXXP (VY) For form, the code will be AF-XXX (VY)
For document, the code will be AD-XXX (VY)

The letter “A” defines the work package:

- **G** – documents from WP1: **Gap Analysis**
- **C** - documents from WP2 & 3: **Curriculum Development**
- **Q** – documents from WP4: **Quality Control and Monitoring**
- **D** – documents from WP5: **Dissemination and Exploitation of Project Results**
- **M** – documents from WP6: **Project Management,**

XXX - three initial capital letters of the plan/form/ document, respectively

Tx.x_Ox.x, where x.x – number of task/ outcome

VY - version of the document

For example, QCMP (V1) is a quality control and monitoring plan version 1, QF-QFT (V1) is a quality form template version 1, GD_T1.2_O1.2 (V5) is the gap document for Outcome 1.2 from Task 1.2, version 5.





Quality Control and Monitoring Work Plan

Responsible:	Evaluation period:	Completion date:
--------------	--------------------	------------------

(*) According to the Adjusted Work Plan for Project Year 1, 2 and 3 (see **Project Management and Communication Plan**)

Work Package	Task	Deliverables	Planned Start date (*)	Planned End date (*)	Actual Start date	Actual End date	Team members involved	Indicator(s)	Approaches, results	Status (open-draft/ on-going / done-final)	Observations, suggestions





Evaluation Criteria Identification and Deliverables Evaluation

Task	Source	Responsible	Result	Destination	Due time
1. Establish the evaluation criteria for the starting task	Work Plan Detailed MSIE 4.0 Project (Logical Frame Matrix, WP deliverables)	Table 2. Evaluation criteria identification responsible, according to QCMP	QF-ECI, Evaluation criteria identification	QCMB	The 15 th day of the month, working day
2. Deliverable evaluation	WPL QF-ECI, Evaluation criteria identification Work Plan Detailed MSIE 4.0 Project (Logical Frame Matrix, WP deliverables)	QCMB Member	Deliverable Evaluation form (*) minimum 5 applicable (**) if the assessment is "No", or below "satisfactory", the QCMB member must make suggestions/ observations	WP4 Leader	Within 3 days
	QCMB Member	WP4 Leader	Deliverable Evaluation results centralized (the "Deliverable" is accepted only if all the assessment is Y or at least "satisfactory")	WPL with CC to PC	Within 2 days





Evaluation Criteria Identification and Deliverables Evaluation

WP	Task no.	Description	QCM responsible	YES/NO	Start Time, (PMCP-V1)	Outcomes evaluated (QCMB – last date)
1	1.1	Developing a gap analysis working plan	Wasawat Nakkiew	Yes	Jan, 2018	GD-T1.1_O1.1(V3) Final -21.01.2019
	1.2	Analysing of MSIE curricula being offered, and of learning and teaching methods being applied	Teresa Monteiro	Yes	Mar, 2018	GD-T1.2_O1.2 (V5) 12.11.2018
	1.3	Assessing needs of industry and students	Wasawat Nakkiew	Yes	Apr, 2018	GD-T1.2_O1.3(V4) 13.11.2018 GD-T1.3_O1.4(V5) 14.01.2019
	1.4	Identifying gaps	Teresa Monteiro	Yes	Aug, 2018	GD-T1.4_O1.5(V4) 24.01.2019
	1.5	Identifying competitive factors for the curriculum	Wasawat Nakkiew	Yes	Aug, 2018	
	1.6	Developing recommendations for the specifications and areas of specialization for the curriculum	Wasawat Nakkiew	Yes	Sep, 2018	





Evaluation Criteria Identification and Deliverables Evaluation

WP	Task no.	Description	QCM responsible	YES/NO	Start Time (PMCP-V1)	Outcomes evaluated
2	2.1	Developing curriculum structure and academic program learning outcomes	Robert ULEWICZ	Yes	Oct, 2018	No
	2.2	Developing courses and course learning outcomes based on a matrix that maps course learning outcomes with program learning outcomes, and also teaching and learning methods,	Robert ULEWICZ	Yes	Nov, 2018	No
	2.3	Conducting pilot test of the key courses	Huynh Trung Luong	No	Febr, 2019	No
	2.4	Assessment of pilot test of the key courses and finalize the curriculum and the courses	Robert ULEWICZ	Yes	Febr, 2020	No
	2.5	Preparation for accreditation of the curriculum	Thitipong Jamrus/ Komkrit Pitiruek	No	Oct, 2019	No
	2.6	Accreditation of the curriculum by the national accreditation institution in Thailand	Thitipong Jamrus/ Komkrit Pitiruek	No	Apr,2020	No





Evaluation Criteria Identification and Deliverables Evaluation

WP	Task no.	Description	QCM responsible	YES/NO	Start Time (PMCP-V1)	Outcomes evaluated
3	3.1	Developing teaching materials	Teresa Monteiro	No	Nov, 2018	No
	3.2	Translating teaching materials between English and Thai	Anintaya Kumkalya	No	Jan, 2019	No
	3.3	Developing a web-portal for online learning	Huynh Trung Luong	Yes	Apr, 2018	No
	3.4	Training of staff on new tools and best practice exchange on modern teaching techniques	Teresa Monteiro	No	Febr, 2018	No
	3.5	Adapting learning materials developed to the online learning	Huynh Trung Luong	No	Mar, 2019	No
	3.6	Purchasing and installing of teaching equipment	Huynh Trung Luong	No	Jan, 2019	No
	3.7	Developing a laboratory and online remote access of the laboratory works	Huynh Trung Luong	No	Oct,2019	No





Evaluation Criteria Identification and Deliverables Evaluation

WP	Task no.	Description	QCM responsible	YES/NO	Start Time (PMCP-V1)	Outcomes evaluated
4	4.1	Developing a quality control and monitoring system	Livia Veronica Lazar	Yes	Febr,2018	Yes QCMP(V4)
	4.2	Implementing the internal quality control and monitoring of the project	Livia Veronica Lazar	Yes	Sept,2018	A03_QF- QCM - draft - 26.01.19
	4.3	Inviting external evaluation of the project results	Supapan Chaiprapat	Yes	Mar, 2019	No
	4.4	Inviting external financial audit	Supapan Chaiprapat	Yes	Aug, 2020	No



WP	Task no.	Description	QCM responsible	YES/NO	Start Time (PMCP-V1)	Outcomes evaluated
5	5.1	Development of a Dissemination, Exploitation and Sustainable plan	Livia Veronica Lazar	Yes	Jan, 2018	DESP(V7) 1.10.2018 Table of Target Groups of Dissemination Material
	5.2	Creating a project website to support the dissemination strategy, and communication and collaboration among	Huynh Trung Luong	Yes	Jan, 2018	Report for Project's Website Assessment (42 participants) 22.09.2018
	5.3	Production and dissemination of project materials	Thitipong Jamrus/ Komkrit Pitiruek	No	Mar, 2018	No
	5.4	Publications in professional journals, newspapers, magazines, brochures, and social media	Teresa Monteiro	No	Feb, 2019	No
	5.5	Developing joint short-term courses in the field of Industrial Engineering in cooperation with industry ...	Athakorn Kengpol	No	Oct, 2019	No
	5.6	Organizing dissemination events with relevant stakeholders	Wasawat Nakkiew	No	Sep, 2018	No
	5.7	Organizing the final dissemination-sustainability conference	Huynh Trung Luong	No	Aug, 2020	No





Evaluation Criteria Identification and Deliverables Evaluation

WP	Task no.	Description	QCM responsible	YES/NO	Start Time (PMCP-V1)	Outcomes available
6	6.1	Finalizing management structure	PEC-CUT	Yes	Nov, 2017	PMCP(V1)
	6.2	Organizing kick-off and regular consortium meetings	PEC-TU	No	Feb, 2018	Agendas Minutes meeting Attendance lists
	6.3	Monitoring and controlling the project	PEC-PSU	No	Dec, 2018	
	6.4	Closing the project	PEC-KMUTNB	No	Jul, 2020	





Internal Quality Controls and Monitoring Team

Partner	Role	Name
UPB	TL	Tom SAVU
AIT	CP	Huynh Trung Luong
CMU	CP	Wichai Chattinnawat
KMUTNB	CP	Athakorn Kengpol
TU	CP	Anintaya Kumkalya
KKU	CP	Sirorat Pattanapairoj
PSU	CP	Supapan Chaiprapat
UMinho	CP	Rui Sousa
CUT	CP	Anna WIŚNIEWSKA-SAŁEK





Internal Quality Controls and Monitoring Team

A03_QF-QCM-V4 Internal Quality Control and Monitoring (v4)

Responsible: Tom SAVU

Evaluation period: 01.10.2017 – 31.12.2018

Completion date: 25.01.2019

According to MSIE4.0-Project-Management-and-Communication-Plan-PMCP-V1.1.pdf

Work Package	Task	Deliverables	Planned Start date	Planned End date	Actual Start date	Actual End date			Task leader	Indicator(s)	Results	Status	Observations, suggestions	
						WP	QCMB	PEC						
WP1	T1.1	O1.1	Gap Analysis working plan	1.Jan.18	31.Mar.18		31.May.18		11.Jun.18	Wichai Chattinnawat, Rui Lima	QF-ECI-T1.1	REVISED-WORKING-PLAN-WP1-approved-by-PEC.pdf GD-T1.1_O1.1 (V1)		Dates from WP1 Leader and from QCMB do not match
							15.Jan.19							
WP1	T1.2	O1.2	Comprehensive analysis of MSIE curricula in Thailand and in EU partner countries	1.Mar.18	31.Jul.18		29.Dec.18	12.Nov.18	30.Dec.18	Rui Lima	QF-ECI-T1.2	GD-T1.2_O1.2 (V6).docx	DONE-FINAL	Some dates from WP1 Leader and from QCMB do not match
		O1.3	Assessment of learning and teaching tools and methods in Thailand and in EU partner countries				30.Dec.18	13.Nov.18	11.Jan.19	Rui Lima	QF-ECI-T1.3	GD-T1.2_O1.3 (V4).docx	DONE-FINAL	Some dates from WP1 Leader and from QCMB do not match
WP1	T1.3	O1.4	Analysis of needs of industry and students	1.Apr.18	30.Sep.18		5.Jan.19	14.Jan.19	24.Jan.19	Rui Lima	QF-ECI-T1.4	GD-T1.3_O1.4 (V6).docx	DONE-FINAL	
WP1	T1.4	O1.5	Gaps between the needs and graduates' competences	1.Aug.18	30.Sep.18		17.Jan.19	24.Jan.19		Rui Lima	QF-ECI-T1.5	GD-T1.4_O1.5 (V4).docx	Waiting PEC approval	
WP1	T1.5	O1.6	Competitive factors for the curriculum	1.Aug.18	30.Sep.18					Rui Lima	QF-ECI-T1.6		OPEN-DRAFT	
WP1	T1.6	O1.7	Recommendations for specifications and areas of specialization for the curriculum	1.Sep.18	31.Oct.18					Rui Lima			OPEN-DRAFT	
WP2	T2.1	O2.1	A modernized curriculum for Master's degree in IE	1.Dec.18	31.Dec.18								NOT YET STARTED	
WP2	T2.2	O2.2	Syllabuses for all courses in the curriculum	1.Dec.18	30.Apr.19								NOT YET STARTED	
WP3	T3.1	O3.1	Teaching materials for instructors	1.Dec.18	30.Nov.19								NOT YET STARTED	
WP3	T3.2	O3.2	Learning materials for students	1.Jan.19	31.Jan.20									
WP3	T3.3	O3.3	A platform for online learning	1.Apr.18	30.Sep.18	1.Apr.18							Developed and tested with one course at AIT.	User guide to be completed and distributed
WP3	T3.4	O3.4	Trained instructors and staffs on new teaching tools and methods. Three workshop	1.Feb.18	28.Feb.18									
				1.Sep.18	30.Sep.18									A training sessions took place during the meeting in Portugal
WP5	T5.1	O5.1	Dissemination, Exploitation and Sustainable Plan	1.Jan.18	31.Mar.18	1.Mar.18								No data
WP5	T5.2	O5.2	Project website	1.Jan.18	30.Sep.20									No data
WP5	T5.3	O5.3	Dissemination materials	1.Mar.18	30.Apr.18									No data
WP5	T5.4	O5.4		1.Sep.18	31.Oct.18									No data
WP5	T5.6	O5.6	Dissemination events organized	1.Sep.18	30.Sep.18									No data

Co-funded by the
Erasmus+ Programme
of the European Union





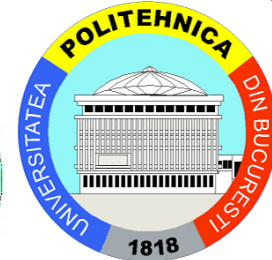
Co-funded by the
Erasmus+ Programme
of the European Union



Thank You



Universidade do Minho



Curriculum Development
of Master's Degree Program in

Industrial Engineering for Thailand Sustainable Smart Industry