

# Erasmus+ project: Qualification, Validation and Certification of Maintenance Personnel

Goto meeting, 19<sup>th</sup> April 2021

## Present:

Guðmundur Jón Bjarnason  
Torsten Ekström  
Ilkka Palsola  
Páll István  
Ingemar Andreason  
Tomáš Hladík  
Zsolt Nyeste  
Mikaela Malmrud

## Absent:

Maria Malmrud  
József Csiba  
Jaakko Tennilä  
Silvia Stepanova  
Attila Kiss  
Svein V. Ólafsson  
Ásmundur Jónsson  
Jan Skarka  
Damjan Maletič

## 1) Status update (Erasmus+ Follow up of MCQ)

As noted before:

- *The project should deliver 1000 MCQ and 200 OQ for maintenance manager (EQF 7) and the same for engineers/supervisors (EQF 6), in total 2000 MCQ and 400 OQ. There are no further numerical minimum project requirements / targets.*
- *We also have the following question from the last meeting: How will we handle questions that can be used for both EQF levels, such as for managers and engineers/supervisors? The intention is to be able to make use of such questions for all levels where applicable.*
- *We have already met the MCQ target and will take all the questions that have not yet been imported and import them to the MZ database. The focus will be set on the CMCQ.*

MCQ March 15th

	CS	FI	HU	IS	SL	SV	Total
Total	290	314	277	300	130	1029	2340

OQ (some will/may be changed to CMCQ, including numerical questions) March 15th

	CS	FI	HU	IS	SL	SV	Total
Total	73	0	72	19	10	0	174

CMCQ March 15th:

	CS	FI	HU	IS	SL	SV	Total
Total	0	0	15	14	6	4	39

CMCQ today, April 19th:

	CS	FI	HU	IS	SL	SV	Total
Total	20	0	19	30	8	4	81



#### 4) Updated qualifications - Proposal and decisions

The document has been updated with some corrections.

Ilkka pointed out that there is a need for a summary / abstraction for the big picture because the document is quite long. This will be taken further.

Here is again a screen shot from the document.

Qualifications for Maintenance Manager EQF level 7			
<p><b>1.0 MAINTENANCE WITHIN PHYSICAL ASSET MANAGEMENT</b></p> <p><b>1.1 PHYSICAL ASSET MANAGEMENT</b></p> <p><b>OVERVIEW</b></p> <ul style="list-style-type: none"> <li>– Relations between maintenance and other processes</li> <li>– Relevant company procedures (EN 15628 C.1:a)</li> <li>– Relevant business and company strategies, targets and business processes (EN 15628 C.1:b)</li> <li>– Industrial relations (EN 15628 C.1:j)</li> <li>– Fundamentals of processes and projects management (EN 15628 C.2:d)</li> <li>– Maintenance within physical asset management (EN 15628 C.2:i)</li> <li>– Procedures and business processes (EN 15628 C.4:a)</li> <li>– Quality management system (EN 15628 C.4:c)</li> <li>– Corporate objectives (EN 15628 C.5:e)</li> <li>– Targets of other departments that interact with maintenance (EN 15628 C.6:e)</li> <li>– Interpret the company policy</li> <li>– Break down the company policy into a maintenance policy</li> <li>– Follow the development of the relationships with technical organizations, institutes and associations for the issues concerning the area of maintenance (EN 15628 C.1:f)</li> <li>– Ensure the implementation of company policies for the organization, management and training of employees (EN 15628 C.3:b)</li> <li>– Ensure the communication between different organizational levels and business processes (EN 15628 C.3:d)</li> </ul>			
SUBJECT	KNOWLEDGE	SKILLS	RESPONSIBILITY AND AUTONOMY
1.1.1	<b>A maintenance manager should be able to:</b>	<b>A maintenance manager should be able to:</b>	<b>A maintenance manager should be able to:</b>
1.1.1 Physical Asset Management	<b>A maintenance manager should be able to:</b> - Describe Physical Asset Management and its effects on the maintenance processes	<b>A maintenance manager should be able to:</b> - Implement a maintenance organisation according to the Physical Asset Management	<b>A maintenance manager should be able to:</b> - Manage the work for planning maintenance in a total project
1.1.2 Company processes	<b>A maintenance manager should be able to:</b> - Describe company strategies, targets and business processes - Mention legislation, technical standards, management system for safety, health, environment and quality, company's and external specialist resources - Describe processes and projects management	<b>A maintenance manager should be able to:</b> - Adapt maintenance strategies, targets and business to the company's processes	<b>A maintenance manager should be able to:</b> - In a total project carry out maintenance planning as a part of total investment
Management	Maintenance within physical asset management - Explain the relations between maintenance and other processes - Mention systems for production planning, account system, maintenance planning and CMMS, and the relation between them	- Communicate with different organizational levels and business processes	
<p><b>REFERENCES AND STANDARDS</b></p> <p>ISO 55000:</p> <ul style="list-style-type: none"> <li>– This standard gives an overview of asset management, its principles and terminology, and the expected benefits from adopting asset management. It can be applied to all types of assets and by all types and sizes of organizations.</li> </ul> <p>EN 16646:</p> <ul style="list-style-type: none"> <li>– This European standard introduces physical asset management as a framework for maintenance activities. It also introduces the relationship between organizational strategic plan and maintenance management system and describes the interrelations between maintenance process and all the other physical asset management</li> </ul>			

**5) Discussions about the questions, guidelines, the MZ system and exams**

Not discussed.

**6) Feedback from ongoing pilot test**

Not discussed.

**7) The evaluation process and Quality Assurance fo questions**

The QA group has now started the work.

**8) The QVCMP web page**

From previous meeting: *Everyone asked to send Zsolt material for the web page, we can also do it ourselves. To be looked at closer at our next monthly meeting.*

Nothing much has happened since.

**9) Other issues**