

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

Goto meeting, 16th November 2020

Present:

Guðmundur Jón Bjarnason
Torsten Ekström
Ilkka Palsola
Páll István
Ingemar Andreason
Zsolt Nyeste
Tomáš Hladík
Damjan Maletič
Attila Kiss

Absent:

Maria Malmrud
József Csiba
Jaakko Tennilä
Attila Kiss
Mikaela Malmrud
Silvia Stepanova
Jan Skarka

1) A generall status update (Erasmus+ Follow up of MCQ)

The number of MCQ today, November 16th is as follows:

	CS	FI	HU	IS	SL	SV	Total
Total	290	316	229	248	147	341	1573

The number of MCQ October 19th, as follows:

	CS	FI	HU	IS	SL	SV	Total
Total	326	137	229	213	136	342	1378

The number of MCQ September 21st, as follows:

	CS	FI	HU	IS	SL	SV	Total
Total	305	97	221	165	117	294	1147

Last time, August 17th:

	CS	FI	HU	IS	SL	SV	Total
Total	305	79	221	126	117	294	1090

Before that. June 15th:

	CS	FI	HU	IS	SL	SV	Total
Total	305	79	221	82	100	286	1015

At our last monthly meeting it was pointed out that we need rules / guidelines for creating questions for “phase 2”, that is for the “certification level” testing skills and deeper knowledge. Issues that must be addressed before questions will be entered into a common database (entered at our last meeting, reviewed at this meeting):

- Labelling, such as who created this question”?
 - Answer: It is possible, but to be looked at closer: _____
 - How will the questions still be accessible?
 - Answer: Through the MZ system, see below
- How can we use the same questions for other levels, where applicable?
 - Answer: The intention is to make it possible to have one question for many levels and it will be possible to edit it once for all levels. Yes, to be explained further _____
- When will the questions be exported - and then the Excel files containing them will be locked?
 - Answer: Monday October 26th
- How will we work with the questions after they have been exported - imported to a common database? Demonstration is needed.
 - Answer: Torsten’s intention is to organise a demonstration before end of October .
- Where does this system come from?
 - Answer: The name of the system is MZ from MZ Competence
- Does the project pay for the system?
 - Answer: Free for use during project time
- Is this the best system for our purposes?
 - Answer: To be determined
- Can we later use another system, if we so chose?
 - Answer: Yes
- How will we continue adding new questions?
 - Answer: We can still add new Excel files, but we can also work directly with the system containing the common database. It is suggested to start with new Excel files.

From previous meetings:

- The goal is to have at least 20 questions per subject on average. Adding more questions, team members from different countries can choose subjects where they have experience and questions are still missing, based on the document Erasmus+ Follow up MCQ and OQ.xlsx stored in folder O5 - O6 Validation question for EQF level 6 and 7.
- Each country will review questions from their own team members. We will later get additional feedback during testing from persons from the field.
- All the questions will be property of the EU, as it is financed through Erasmus+ but it is an important assignment for us to come up with procedures, with EFNMS, how to maintain the questions in the future and in general the results from this project.
- Ilkka told us that he gave an introduction on the EFNMS GA meeting last Saturday. A question was raised about the ownership, the question was answered that the intention is to hand it over to EFNMS/ECC, when necessary procedures are in place, as mentioned in earlier minutes.

2) Systems - Demonstration of the MZ system

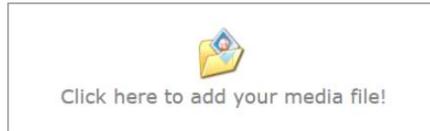
First we discussed that there are a number of systems out there for handling a question database, exams and certifications. Possibly ECC can, at some point in time, evaluate different systems, considering many issues such as costs, functionality, ease of use and future development. Ilkka and Jaakko will talk to universities in Finland to get some ideas. For the time being we will continue with the MZ system.

Torsten gave a demonstration of the MZ system. Here are few screenshots from the demonstration.

The screenshot shows a web browser window with the URL <https://startmz.com/validmaint> in the address bar. The page header includes the 'mz competence' logo and 'Svenskt Underhåll AB' with a 'Log In' link. The main content area is titled 'EFNMS ValidMaint' and contains a welcome message: 'Welcome to EFNMS ValidMaint. Please use activation code R7@QGX to conduct the demo test.' Below this is a large graphic of a dome structure and the 'efnms' logo, followed by the text 'European Federation of National Maintenance Societies vzw'. On the right side, there are two sections: 'Activation Code' with a text input field and a 'CONTINUE' button, and 'Authentication' with 'Username' and 'Password' input fields and a 'LOG IN' button. The username field contains 'torsten.ekstrom@svuh.se'.

Edit question #69506.1

Asset portfolio stands for a bundle of several asset systems e.g. a site or a plant. When defining organization's business strategy for the asset portfolio including market analyses and analysis of business environment, what should be the role of maintenance in this determination process.



- Informative and consultative role in determining the impact of various asset solutions on performance, maintenance costs and risks
- No role at all, because it is the top management task.
- Decision maker's role in the management team when acquiring a new asset portfolio,
- Responsible for dependability design of the asset portfolio.

Retain the order of the alternatives

If the examinee answers...

- Informative and consultative role in determining the impact of various asset solutions on performance, maintenance costs and risks
- No role at all, because it is the top management task.
- Decision maker's role in the management team when acquiring a new asset portfolio,
- Responsible for dependability design of the asset portfolio.

1 points will be received.

Difficulty Level:

Reference:

Note: [Add note](#)

From the Excel sheet

Question 1 of 5

Wage increases are often used as a motivating factor because:

[Listen to the question](#)

- The unions say that we should do it
- Wage increases are a good way to motivate people to get going
- Pay is the only real motivating factor
- It is the only thing that can be influenced

[Listen to the answers](#)

Mark for follow up



mapaz mz patent pending Torsten Ekström, Svenskt Underhåll AB Lyssna

Home Administrate ▶ View ▶ Return to the start page Log out

Create new question

Select the type of question you would like to create

Automatically corrected question types

Questions of the type automatically corrected questions are corrected when the exam is finished. No more work are required from the teacher.

What is the capital of Sweden? <input type="text"/>	Text You state the question and one or more correct text answers	What is the capital of Sweden? <input type="radio"/> Stockholm <input type="radio"/> Oslo <input type="radio"/> Copenhagen	Multiple choice with one correct answer The examinee is presented with several alternative answers, one of them is correct. Different points can be awarded to different answers.
What is the capital of Sweden? <input type="radio"/> Stockholm <input type="radio"/> Oslo <input type="radio"/> Copenhagen	Multiple choice with several correct answers The examinee is presented with several alternative answers, more than one of them is correct. Different points can be awarded to different combinations of answers.	Where is the capital of Sweden? 	Click-in-picture The examinee gives the answer to the question by clicking on an image. Different points can be awarded to different areas of the image.

Manually corrected question types

Questions of the type manually corrected questions need to be corrected by the teacher after the exam.

What is the capital of Sweden? <input type="text"/>	Free Text You state the question and instructions for correcting a free text question.
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3) Review of the previous protocol

Not discussed

4) Updated qualifications - Proposal and decisions

Not discussed

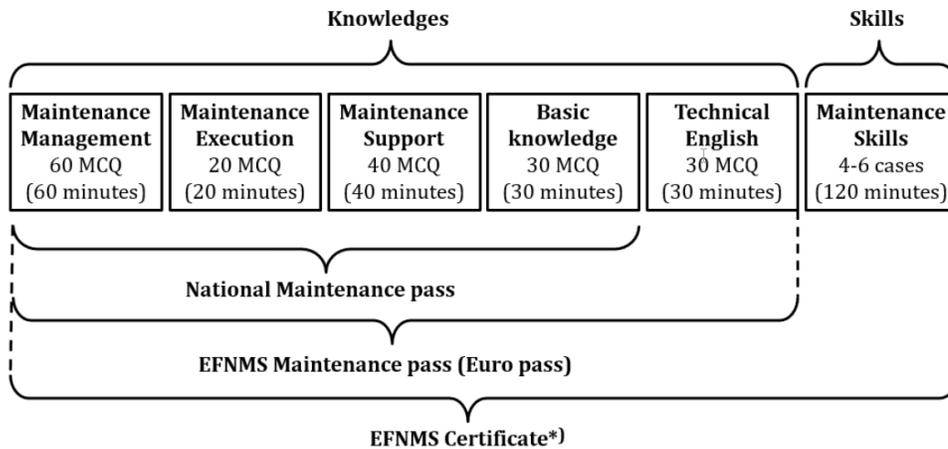
5) Development of questions

It has now been decided only to MCQ and C-MCQ, Complex - Multiple Choice Questions. Additionally, we have an open door for open questions for calculations, where the student gives the answer as a figure that will be automatically evaluated.

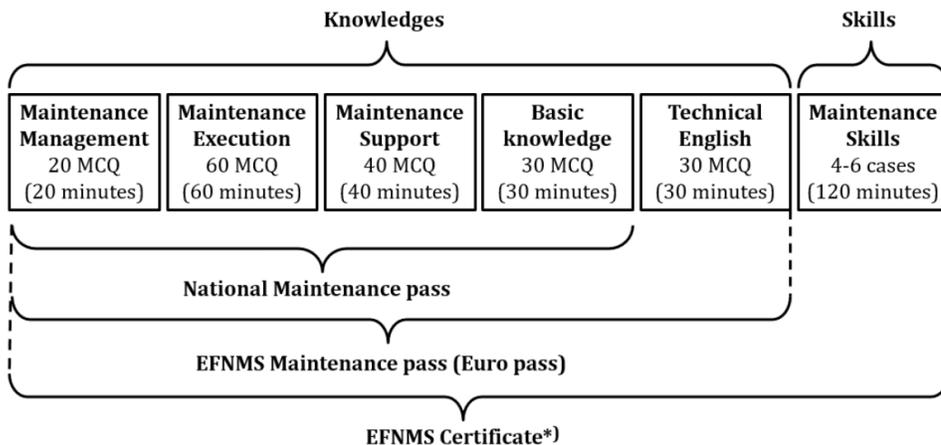
Torsten showed the following slides regarding a framework for

- *National maintenance pass*
- *EFNMS maintenance pass*
- *EFNMS certificate*

Maintenance Managers EQF level 7



Maintenance Technician Specialists EQF level 5



Some questions that needs to be answered:

- What is the definition of a “case” in this context?
- How is the weight for Management, Execution, Support and Knowledge decided?

6) The QVCMP web page

Not discussed.

7) Other issues

Not discussed.