



**Northern Maritime University**  
North Sea Region

**The Interreg IVB  
North Sea Region  
Programme**



# **Northern Maritime University (NMU)**

**WORKING DOCUMENT**

## **SPECIFICATION OF NMU E-COLLABORATION PLATFORM**

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## **EXECUTIVE SUMMARY**

This working document is generated in order to elaborate specifications and requirements of NMU e-collaboration platform for the external contractor who will be responsible for the programming and integration to the existing NMU website.

The document is structured into two main parts.

First, the concept of NMU e-collaboration platform will be described shortly in order to provide the understanding of the overall concept of the platform which should response to the NMU objectives.

Second, the technical specifications will be elaborated. In particular the required features will be provided.

This document is restricted only to NMU partners, project officer as well as the authorized persons, for example the external programmer for this platform.



## 1 CONCEPT OF NMU E-COLLABORATION PLATFORM

### 1.1 Background and objectives

In the NMU project, one of the key achievements of the project is the development of a web collaboration platform. It aims to facilitate obtainment of education, collaboration and cooperation in research activities and industrial projects within the NMU community.

NMU e-collaboration platform is an integrated web platform which provides access to information, education, collaboration and cooperation services offered by NMU. Moreover, the platform should serve as a virtual marketing tool for NMU after the project termination.

### 1.2 Structure and main characteristics

The e-collaboration platform should be accessible via an umbrella homepage of NMU. On the homepage, a choice between entering project website and e-collaboration platform should be possible.

Three main characteristics should be considered in the planning and construction phase of the platform:

1. Robustness – The platform should be able to handle complex and greater size of information.
2. Flexibility – The platform should be extensible, meaning it can be developed gradually and adjustable when changes are needed.
3. Simplicity – The platform should be easy to maintain and update as well as to have a comprehensible Graphical User Interface (GUI) which enables easy learning and use of the platform's included features.

### 1.3 Features

In the e-collaboration platform, following features are to be included. They will be elaborated in the part 2 – Technical specification of e-collaboration platform

- E-Learning
- File sharing
- Forum / Discussion Panel
- Tele- / Video conference
- Databases of Different Information i.e.
  - ☞ Profiles of lecturers, researchers, stakeholders, members
  - ☞ Project lists
  - ☞ Course handbook
  - ☞ Publication
- Information on Education Offerings (List of courses – course catalogue, description, etc.)
- Registration to Education Offerings and billing possibility (e-Payment)
- User Management
- Wikipedia and FAQ

## **1.4 Roles and logins**

The e-collaboration platform allows different roles of users:

<b>Role</b>	<b>Status</b>	<b>User</b>	<b>Rights</b>
Guest:	unregistered	public	reading general information / using the NMU wikipedia
Member	registered	project members	Reading / Editing content / using Video conference / file sharing / reading and editing forums / using e-learning platform
		stakeholders	Reading content / using Video conference / file sharing / reading and editing forums
		research institutions	Reading / Editing content / using Video conference / file sharing / reading and editing forums
		students	Reading / using Video conference / using e-learning platform
Administrator	registered	NMU Admin	Editing all

Registered users have to login to the e-collaboration platform to get full access to the features in accordance to their role.

## 1.5 Homepage




Once the e-collaboration platform is implemented, the homepage of the NMU should be changed. It is recommended to have a welcome page which offers a choice to the web user to either choose the project website or e-collaboration platform.

However, both project website and e-collaboration platform should also provide possibility to swap between them once the user is using one of these pages by a link button.

## 1.6 Design

The design of e-collaboration platform and new welcome page should be in-line with the NMU website. Since the e-collaboration will be very informative, uses of different icons for easy recognition of functions or features are appreciated.

The colour used for design must also be corresponding to NMU colours.

	Deep Sea Blue
	Caribbean Green
	Ivory yellow

## 2 TECHNICAL SPECIFICATION

### 2.1 General specification

The NMU website is based on the web programming technology so-called Joomla. It is an open source and therefore free of charge. This technology has proven as a good content management system and provides a user-friendly impression to the NMU project members. Therefore, an investigation of extensions in regards to the requirements explained in the part 1 has been conducted.

The development of Joomla technology is continuous. The available add-on features are also responded to the requirements of e-collaboration platform and freely accessible.

Because of these reasons, JacobsUni, which is responsible for the development of concept and the availability of the platform, recommends that the construction and programming of the e-collaboration platform should also base on this technology.

### 2.2 Specification on each required feature

Followings are the short description of the technical specification of each required feature in the NMU e-collaboration platform.

The requirement of the access level of each feature will be indicated.

Feature	Access Level	Description on Technical Specification
E-Learning	Registered (NMU project members, registered students or learners of a specific course)	<p>Since an NMU partner, FH-Lübeck, is experienced in e-learning platform so-called Moodle, the consortium recommends to integrate it into the e-collaboration platform.</p> <p>Technically it should be possible since Joomla extension allows to integrate Moodle on to the website with Joomla technology.</p>
File Sharing	Registered (NMU project members, registered members i.e. stakeholder, research institutes, universities)	The file sharing allows the exchanges of documents as well as concurrent working on the same documents when starting a new working group among NMU community members.
Forum / Discussion Panel	Registered (NMU project members, registered members i.e. stakeholder, research institutes, universities, etc., registered students or learners of a specific course)	<p>In e-collaboration platform, two forums or discussion panels should be distinguished. On the one hand, e-learning platform provide the forum or discussion panel in regard to a specific course or learning environment in general.</p> <p>On the other hand, a general forum or discussion should allow discussion within NMU community which is not directly related to the course environment i.e. via e-learning platform.</p>
Tele- / Video Conference	Registered (NMU project members, registered members i.e. stakeholder, research institutes, universities, etc., registered students or learners of a specific course)	<p>The e-collaboration platform should allow the communication among NMU community members with the use of technology on tele- and video conference. This multimedia service is appropriate for a small group discussion which can lessen the travel for NMU members but still allow an efficient collaboration when working on a specific project.</p> <p>In Moodle version which FH-Lübeck is using, an integrated Adobe Connect is available. Therefore, a further investigation should be done by the programmer how the Adobe Connect within Moodle of FH Lübeck can be integrated into e-collaboration platform. In case of using Adobe Connect a licence contract with Adobe has to be made.</p>
Databases	Public and Registered	Two levels of restriction should be possible. If the user of NMU e-collaboration platform is not registered, a search of



## E-COLLABORATION SPECIFICATION

		<p>specific topic or key word should be possible. Only a selected set of information will only be provided here. In case that the user would like to obtain more information, a registration will be required.</p> <p>Moreover, the differentiation of the access levels between NMU partners and the NMU users must also be concerned. Since the NMU partners are providing the contents, the right for edition and administration should be given.</p>
Information on Education Offerings	Public	<p>The information on NMU education offerings is to be presented as a product catalogue of available courses, seminars or workshop. The list of all courses categorised by topic area is provided. Furthermore, to each course, seminar or workshop, a detailed description should be provided. The description should include at least:</p> <ul style="list-style-type: none"> <li>• Title of the course, seminar, workshop or event</li> <li>• Short description</li> <li>• Related issues which are included (i.e. learning objectives, expected results, etc.)</li> <li>• Offering institution (s)</li> <li>• Duration</li> <li>• Credit (s)</li> <li>• Obtainable degree / certification</li> <li>• Learning method (s)</li> <li>• Place of obtainment</li> <li>• Applicable fee (if any)</li> </ul>
Registration to Education Offerings	Registered	<p>The platform should allow the users after reviewing the course description to register the desired course. Before the course can be registered, a login has to be performed. If the user does not have the login yet, a possibility for login request should be possible. This point will be further elaborated under "user management".</p>
Billing possibility (e-Payment)	Public and registered	<p>The platform should allow the user to perform the payment in regards to any NMU fixed services that they have requested and received. This function should be included in:</p> <ul style="list-style-type: none"> <li>- Course registration</li> <li>- Publication i.e. NMU textbook series, articles, results on study conducted by NMU, etc.</li> <li>- Workshop or seminar (with fixed price)</li> </ul> <p>For any individual inquiries for the NMU services, a correspondence between the user and the NMU correspondent must be done. The service agreement with price will be negotiated and done manually.</p>
User management	Registered / Administrator	<p>Since the trend of user number of NMU website and platform tends to grow, the platform should provide a possibility for user to request for an account which automatically provides the account information after registration. A function to avoid spam registration should be included.</p> <p>A possibility to request for "Forgotten Password" should be included.</p>
Wikipedia / FAQ	Public	<p>The platform should integrate a Wikipedia to collect terminology, concepts, knowledge regarding the maritime transport and provide access to every interested individual.</p>

Please refer information about mentioned features of Joomla Extension in the excel file as attached.