Synoptic scheme of grade systems and Manual for the correct transfer of grades between the involved institutions

Project reference Number 574099-EPP-1-2016-1-IT-EPPKA2-CBHE-JP
Grant Agreement 2016 – 3772 / 001 – 001

Deliverable Title	D4-4.3 Synoptic scheme of grade systems and Manual for the correct transfer of grades between the involved institutions
Deliverable Lead:	Middlesex University
Related Work package:	WP2
Author(s):	Georgios Dafoulas – Middlesex University
Dissemination level:	International
Due submission date:	30/09/2019
Actual submission:	30/09/2019
Version	V 0.2
Project Number	574099
Instrument:	Specific Support Action (SSA)
Start date of Project:	15/10/2016
Duration:	36 months

Abstract This document reports on the state-of-the-art report on EU FC programmes.

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

Versioning and Contribution History

Version	Date	Modification reason	Modified by
V 1	17/10/2018	Creation of document	MU
V.2	30/09/2019	Finalisation of document	MU

Table of Contents

1. Executive Summary

As part of the WP4 responsibilities, the project outputs should include a manual for the correct transfer of grades and credits between the involved institutions in the pilot courses, including the synoptic scheme of grade systems is approved and published in the web site.

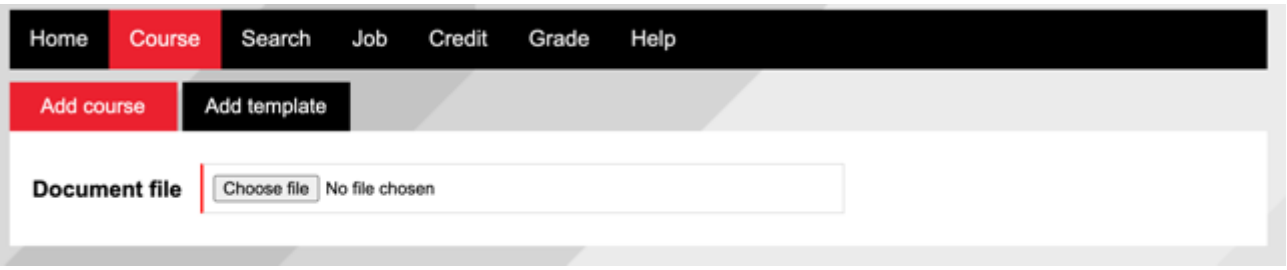
After it became apparent that most of the consortium members were not members of EGRACONS, it was agreed that MUHEC would work with a sub-contractor to adapt its MUSKET platform to support the PAWER consortium for credit recognition and grade conversion. The MUSKET tools support these processes and can be used after the successful completion of a student mobility.

2. Introduction

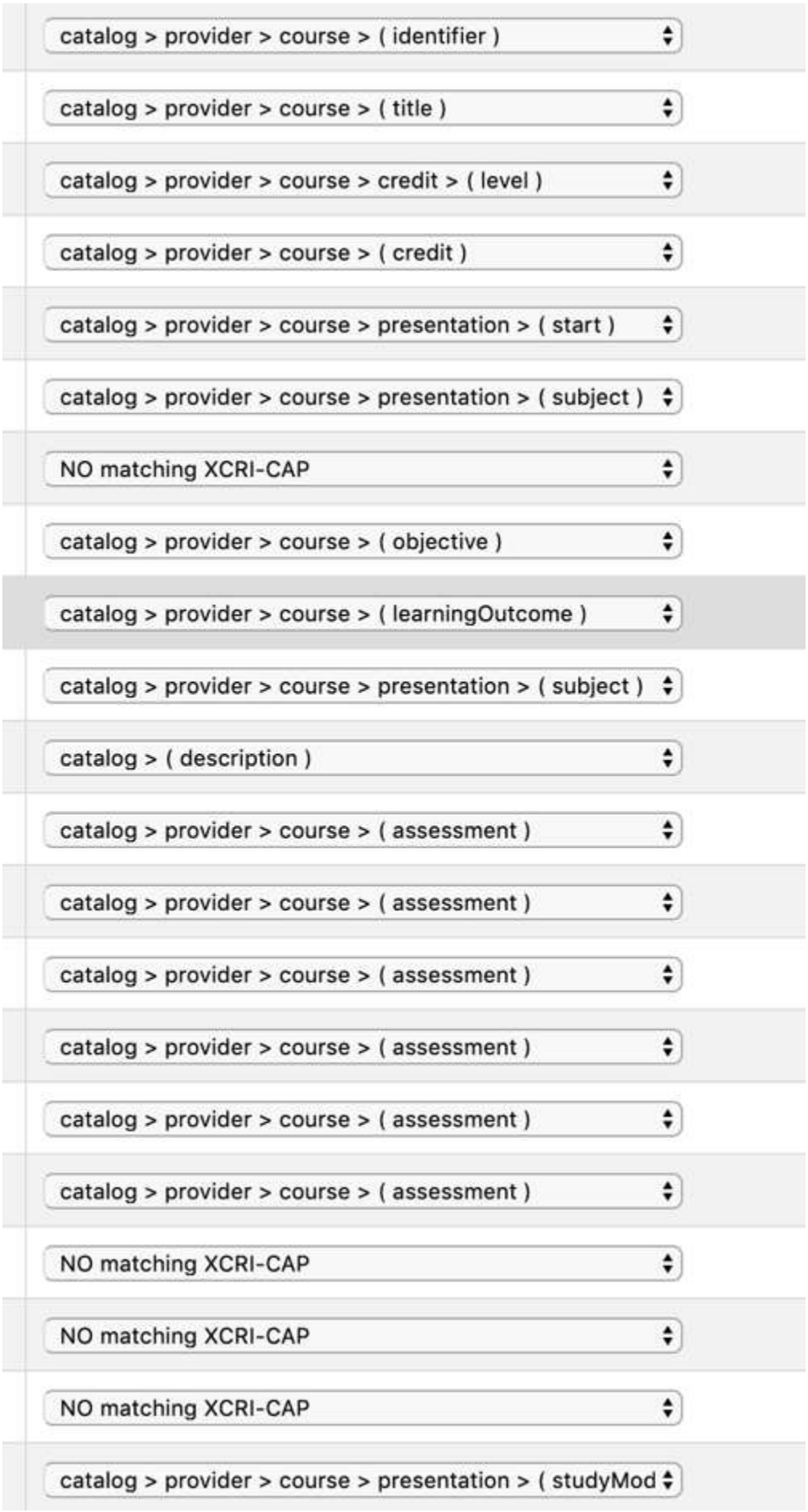
The MUSKET tool supports a number of functions as follows:

- Creating a course
- Searching for courses
- Searching for jobs
- Recognising credits
- Converting grades

The following figure shows the homepage of the MUKSET tool.



The mapping taking place in MUSKET is based on the use of the XCRI-CAP model. This is an information model used for eXchanging Course Related Information using Course Advertising Profiles. The principle is that each heading in a course description document (e.g. learning outcomes) is mapped onto an XCRI-CAP field. Below there is a representation of some CCRI-CAP fields.


catalog > provider > course > (identifier)
catalog > provider > course > (title)
catalog > provider > course > credit > (level)
catalog > provider > course > (credit)
catalog > provider > course > presentation > (start)
catalog > provider > course > presentation > (subject)
NO matching XCRI-CAP
catalog > provider > course > (objective)
catalog > provider > course > (learningOutcome)
catalog > provider > course > presentation > (subject)
catalog > (description)
catalog > provider > course > (assessment)
catalog > provider > course > (assessment)
catalog > provider > course > (assessment)
catalog > provider > course > (assessment)
catalog > provider > course > (assessment)
catalog > provider > course > (assessment)
NO matching XCRI-CAP
NO matching XCRI-CAP
NO matching XCRI-CAP
catalog > provider > course > presentation > (studyMod

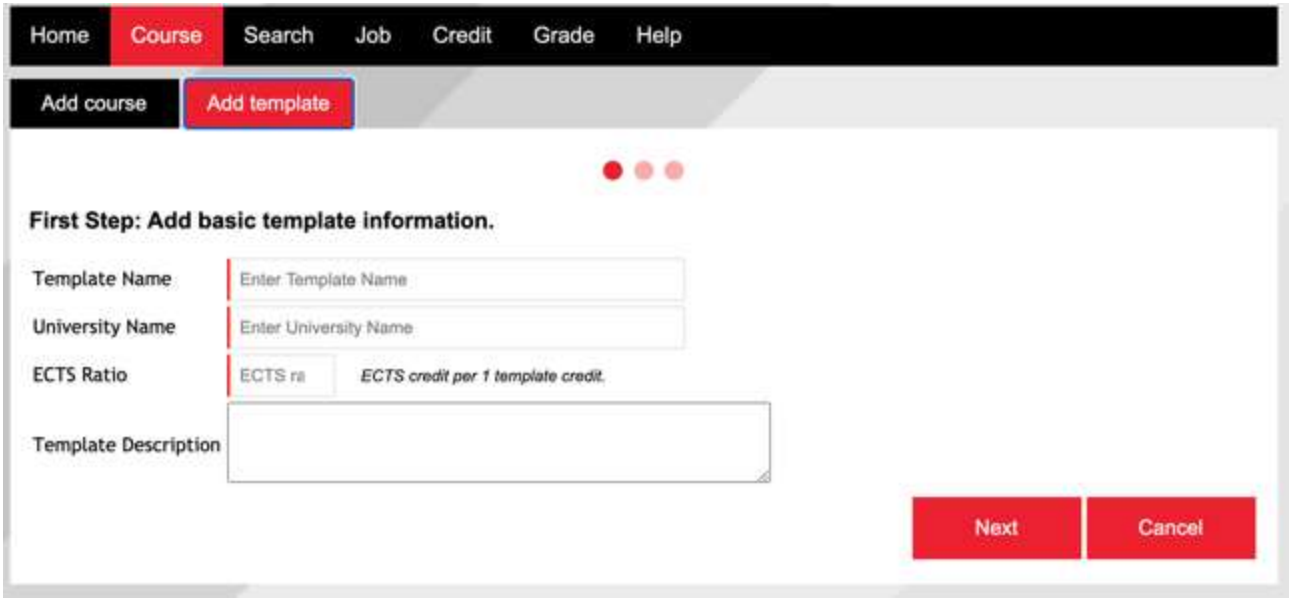
3. Functionality

The MUSKET tool supports the following functionalities.

Creating a course

New users need to create a template in the MUSKET tool. This means that they have to help the tool to understand the main headings of the document template used to provide their course information. After this is done for the first time, then the suer can add a course by simply uploading a file with the course description.

The following figure shows how the user can create a new template and a course name from scratch. A critical step is to identify the ECTS ratio for this course as it will be needed for all future mappings.



Searching for courses

Once the institution has uploaded its courses online, it is possible to compare courses from different institutions as shown below. The user can select certain keywords and a simple search will show the instances of the search keywords in both course descriptions using the templates of each institution.

Keywords

Please add your keywords that are will be used in your search

Add

mathematics × algebra × statistics × calculus × Algorithm ×

Universities and Courses selection

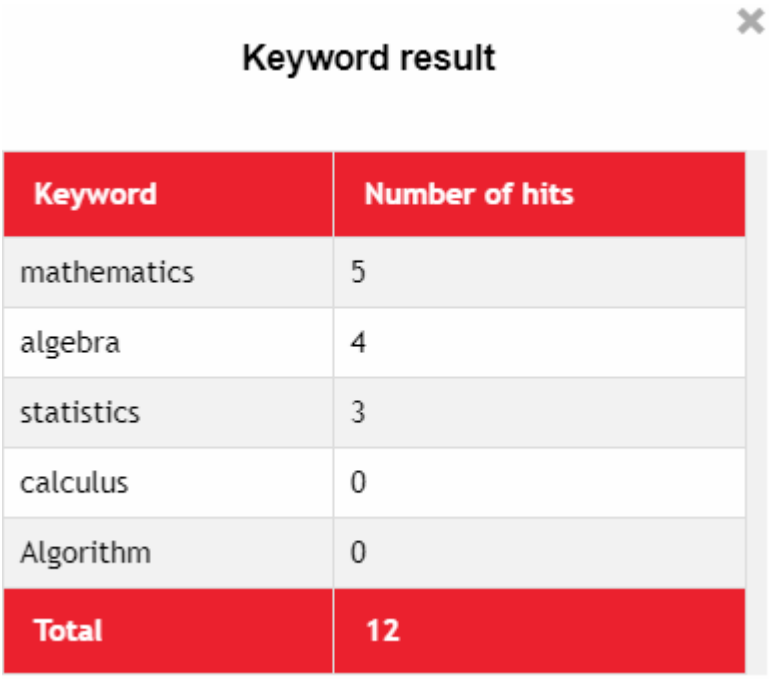
Please select the courses from the list to univesities.

Course	University	Course
Course A	Middlesex University	Foundation Mathematics (BIO)
Course B	UNIVERSITA DEGLI STUDI DELL'AQUILA	Mathematical Methods
Course C	TECHNOLOGICAL UNIVERSITY OF TAJIKISTAN	Mathematics in economics

The mapping compares those course description headings that are mapped to the same XCRI-CAP field. In this case the Learning Outcome field is used to compare three courses with regards to the keywords entered by the user.

learningOutcome	Knowledge On completion of this module, the successful student will be able to: 1. demonstrate familiarity with the basics of numbers and *algebra*; 2. demonstrate an understanding of common algebraic operations; 3. identify and solve problems involving different types of functions; 4. understand the importance of good methodology when collecting data; 5. identify appropriate descriptive *statistics* for a simple data set . Skills This module will	3	Pre-Course di mathematical method: *mathematics* for economics and financial applications. Algebraic and literal calculation, MCD, mcm. Arithmetic and geometric progressions. Combination *calculus*: main formulas. equations And inequalities of first and second degree. Power Properties, Logarithms and exponentials. Equations and inequalities with exponentials and logarithms. Properties of radicals and absolute value. Equations and Inequalities with roots and absolute value. Equations and inequalities in the presence of products and Algebraic expressions. Systems of equations and inequalities. Trigonometry: Fundamental formulas and trigonometric functions. Analytical geometry:	2	As a result of discipline studying students should know: • the basic constructs, principles and mechanism of modern object-oriented language; be able: • to define and use classes; • to develop applications; • to use modern IDE . have an idea: • about memory volume and performance estimating	0

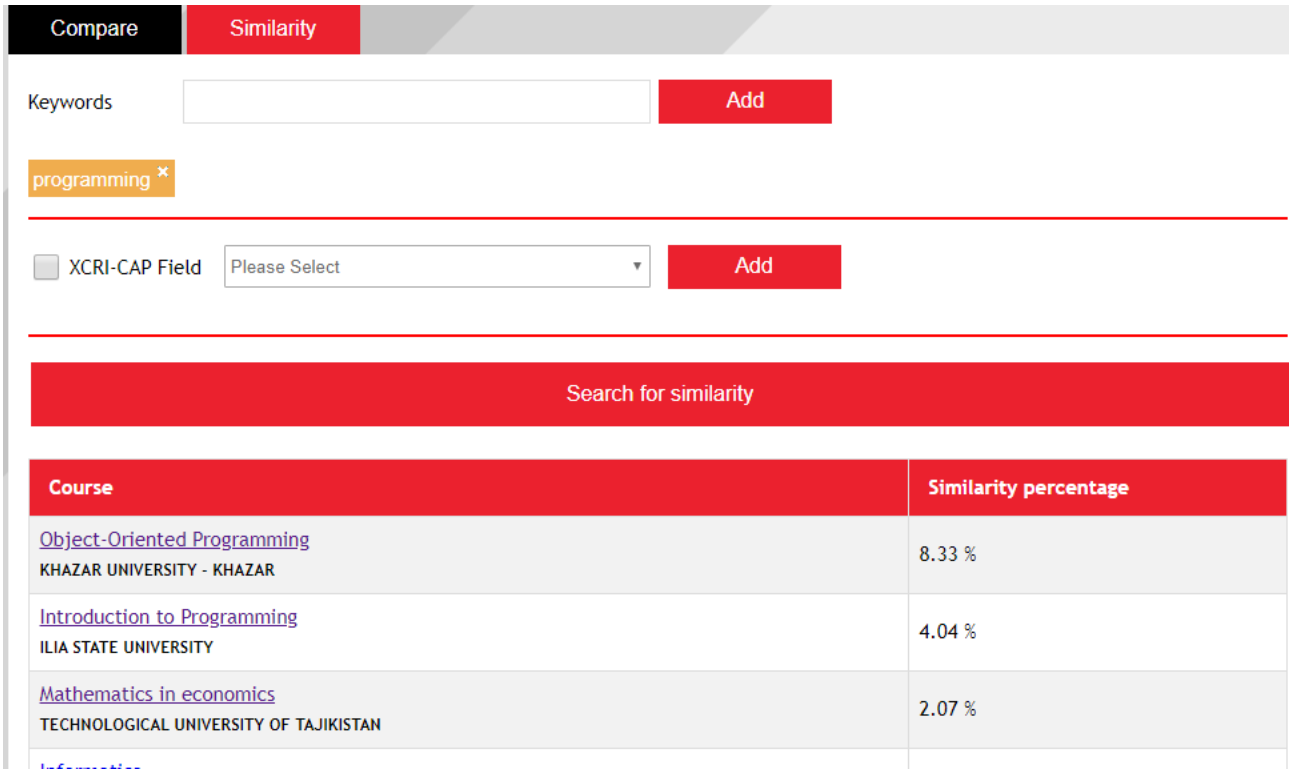
A summary of the keyword presence in each course is provided as a summary of the comparison and is illustrated below.



Keyword result

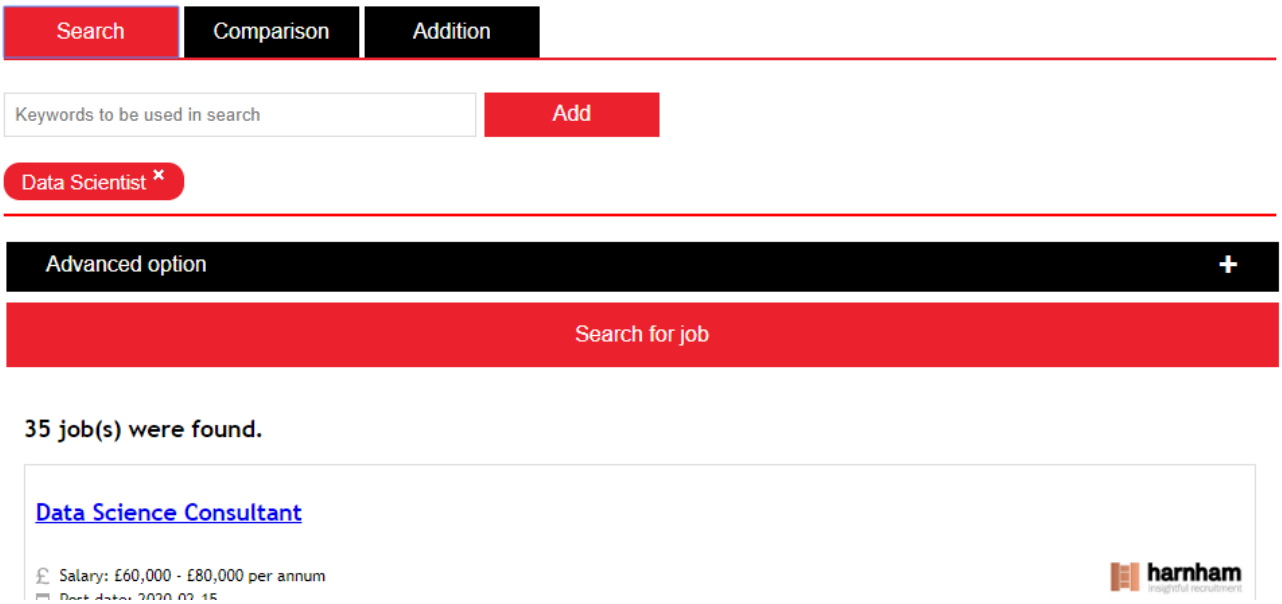
Keyword	Number of hits
mathematics	5
algebra	4
statistics	3
calculus	0
Algorithm	0
Total	**12**

It is also possible to compare the similarity of the different courses against a set of keywords. This is a very helpful function for those students who need to search for courses that are similar to the ones they have at their own institution. This function can help academics when putting together a learning agreement for student mobility.



Searching for jobs

The MUSKET tool is connected to a number of job search websites, This means that every Friday it downloads the latest jobs that can be searched using the same keyword sets used for searching for a course. This is shown below.



The ability to compare actual jobs allows students to check current jobs relating to the courses they wish to study. Students can also check how a specific job relates to their course and see what aspects of the course are necessary for the job.

Document details

Course : Business Intelligence
University : Middlesex University
Template : MDX Bis

Heading	XCRI-CAP	Content
Module code	identifier	CST3340
Title	title	Business Intelligence
Credit points	value	30
Start term		2019/2020
Module leader		Joanna Loveday Accredited by: Module restrictions: Pre-requisite None Programme restrictions None Level restrictions None Other restrictions or requirements None
Aims	objective	This module aims to develop an understanding of the techniques and approaches used to capture, store and analyse data generated by organisations for purposes of business intelligence. In a digital age it is important for businesses to make use of data captured about its entities. You will learn about information retrieval, data presentation, pattern recognition techniques and data models

Therefore, students can see the relevance of their programme of study and specific courses to actual jobs. This can help them decide on course options according to their preferred career path.

Document details

Course : Business Intelligence
University : Middlesex University
Template : MDX Bis

Heading	XCRI-CAP	Content
Module code	identifier	CST3340
Title	title	Business Intelligence
Credit points	value	30
Start term		2019/2020
Module leader		Joanna Loveday Accredited by: Module restrictions: Pre-requisite None Programme restrictions None Level restrictions None Other restrictions or requirements None
Aims	objective	This module aims to develop an understanding of the techniques and approaches used to capture, store and analyse data generated by organisations for purposes of business intelligence. In a digital age it is important for businesses to make use of data captured about its entities. You will learn about information retrieval, data presentation, pattern recognition techniques and data models

Recognising credits

The next step is to proceed with credit recognition. The following figure shows a list of countries and ECTS mappings.

Country | University | Course

Countries comparison

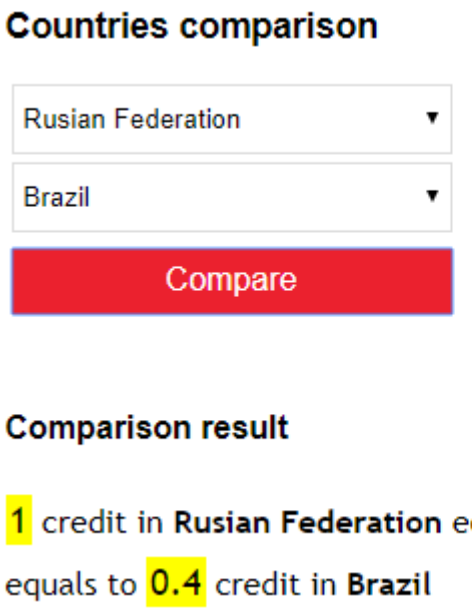
First country
Second country
Compare

Comparison result

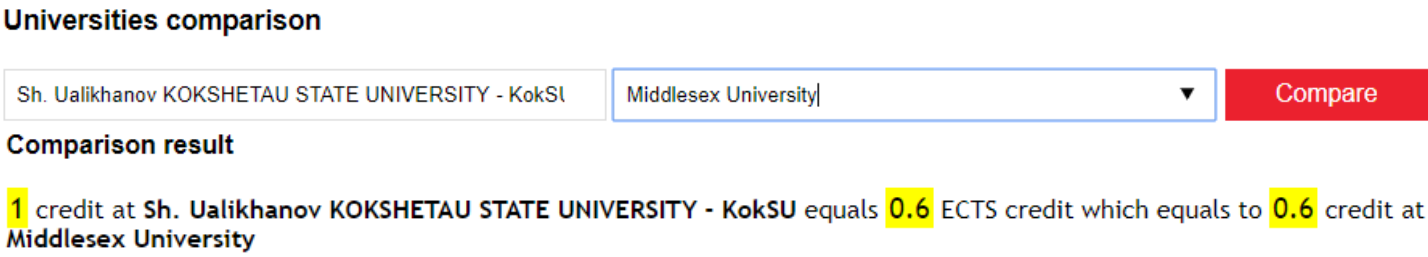
Hide all countries

Country	ECTS Credit for 1 credit
Australia 1	1.25
Australia 2	0.63
Australia 3	1.25
Brazil	2.5
Canada	2.0
China 1	1.67
China 2	2.0
China 3	2.5
China 4	1.7

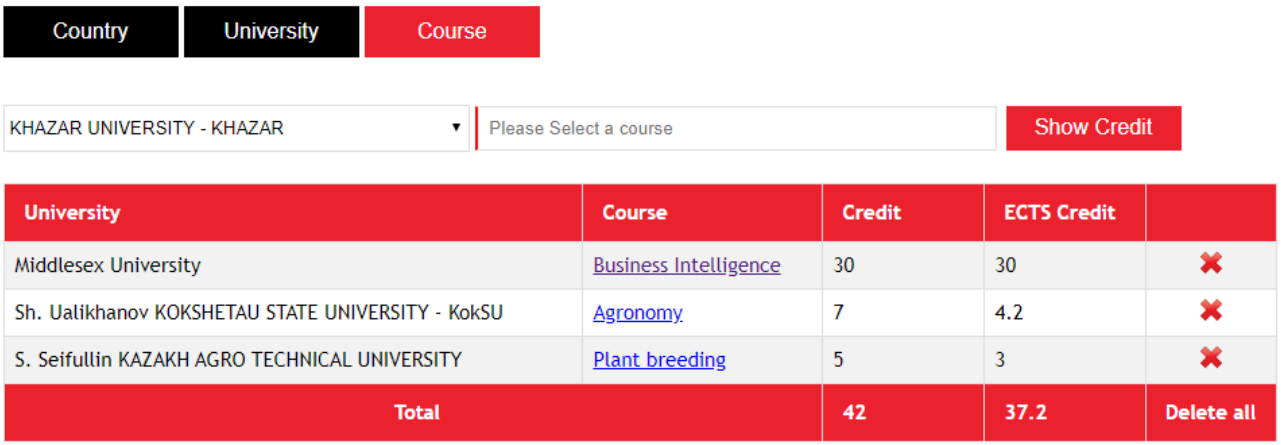
Students can compare between specific countries to see the credit equivalence to ECTS.



They can also compare different universities as in certain countries several credit systems exist.

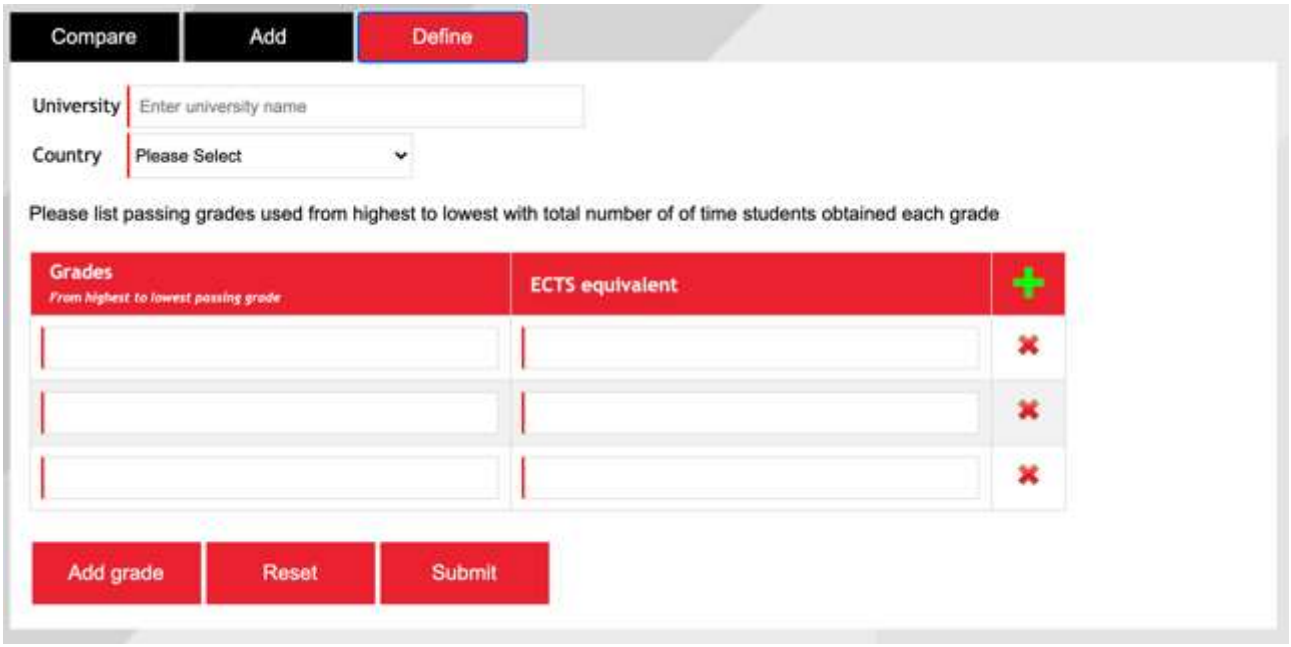


Once students have identified the University they wish to have a mobility exchange with they can start adding courses in order to reach the intended number of ECTS for their learning agreement.

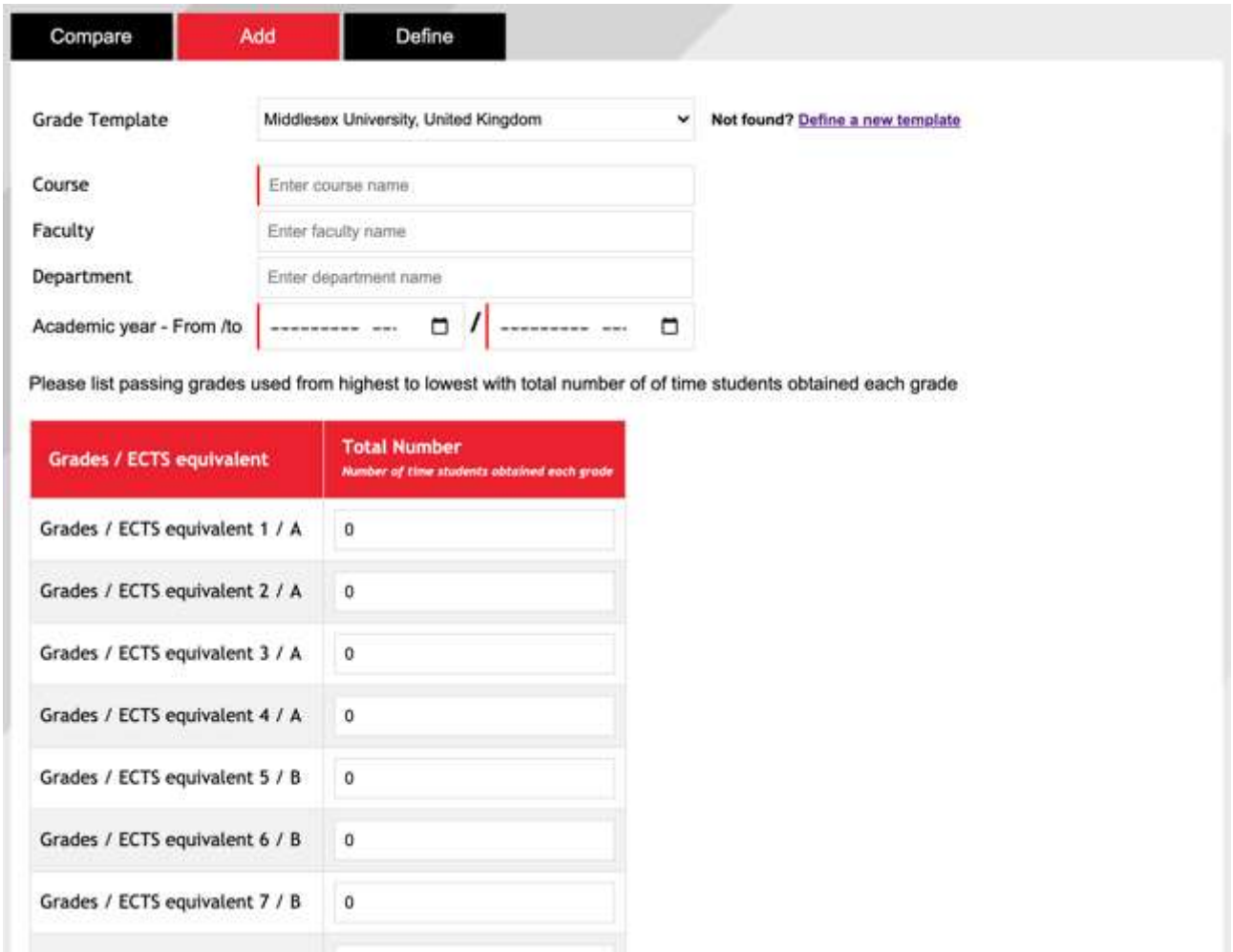


Converting grades

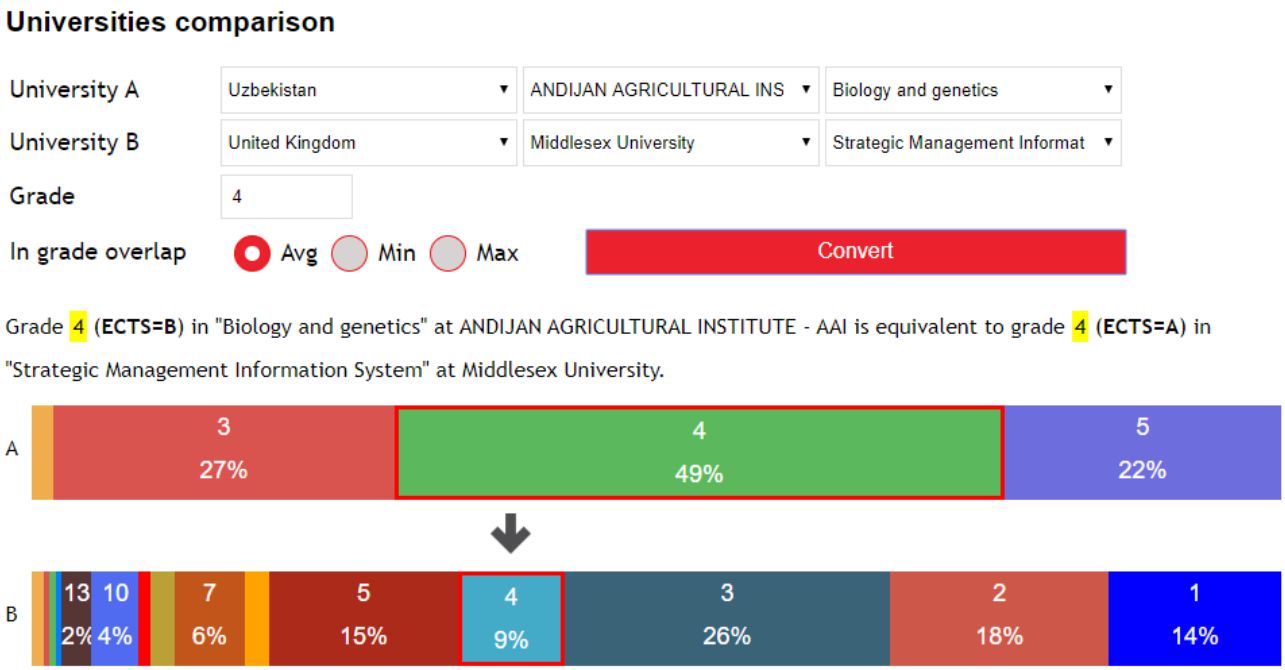
Each institution has an online form to enter grades for the past 3-5 years of a course's assessment. This requires to define its assessment system and map it to ECTS grades.



Once they have defined their grade system, universities need to provide the full grades for each course. This is done using the form below.



The final step is to compare specific grades between two Universities, therefore providing advice for the grade conversion after a student mobility has taken place.



4. Conclusions

This report provided an overview of the MUSKET tools and how it can support the PAWER consortium with its various functions including credit transfer and grade conversion support.