



European Commission

TEMPUS



International Conference
**European Approaches for
Engineering Education Development**

June, 04-06 2013

Bauman Moscow State Technical University (Moscow, Russia)

**Documentation for Quality Assurance of
Study Programmes: DoQuP Project**

Alfredo Squarzoni
University of Genoa



Items of the presentation

- a) Objectives, outcomes and output of the DoQuP Project
- b) Process for the identification of the documentation for QA of SPs: the DoQuP Model
- c) What has to be done

a) Objectives, Outcomes and Output of the DoQuP Project

Wider objective of the DoQuP project

Definition and implementation of an on-line documentation system for the quality assurance (QA) of study programmes (SPs) in partner countries (PCs), consistent with the European Standards and Guidelines for QA (ESG)

Partner Countries:

Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan



Why a

clear and complete documentation

**of learning objectives, educational process,
learning context, learning outcomes and
management system is an**

**essential and necessary aspect
of the QA of SPs?**

Because this is a requirement established by the
ESG

Part 1: European standards and guidelines for internal quality assurance within higher education institutions

1.7 Public information:

Institutions should regularly publish up to date, impartial and objective information, both quantitative and qualitative, about the programmes and awards they are offering.

Because the availability of information and data on the characteristics and results of SPs is essential for their

transparency,

one of the most important objective of the Bologna process, and in order to

'ensure trust'

in the SP capacity to meet the requirements for quality,

in one word

to guarantee its quality, making possible the formulation of an informed judgment on the SPs' quality by all the interested parties, first of all students and labour market.



But the availability of information and data on the characteristics and results of SPs is also essential and necessary for their

comparability

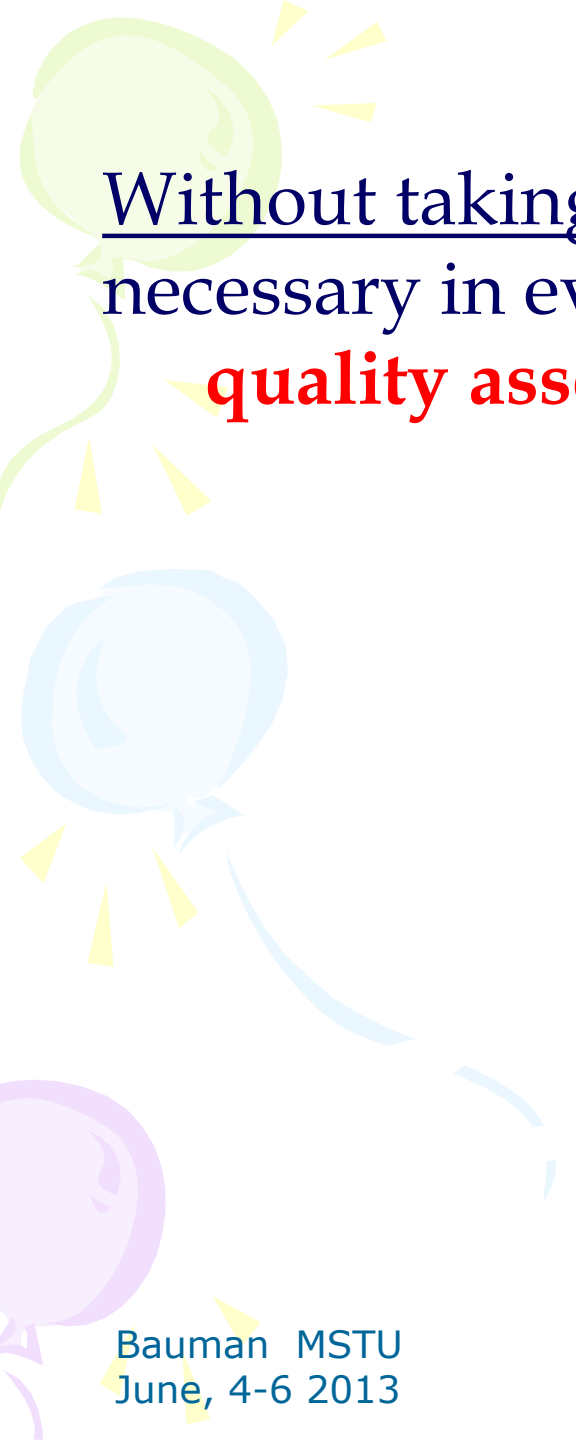
at national and international level, another important objective of the Bologna process.



Furthermore, the availability of information and data on the characteristics and results of SPs constitutes a

powerful incentive to the improvement of SP quality

(as a matter of fact, when a SP is required to document its quality, in case of bad quality it is also stimulated to adopt the opportune actions for its improvement).



Without taking into account that their availability is
necessary in every
quality assessment and accreditation process.



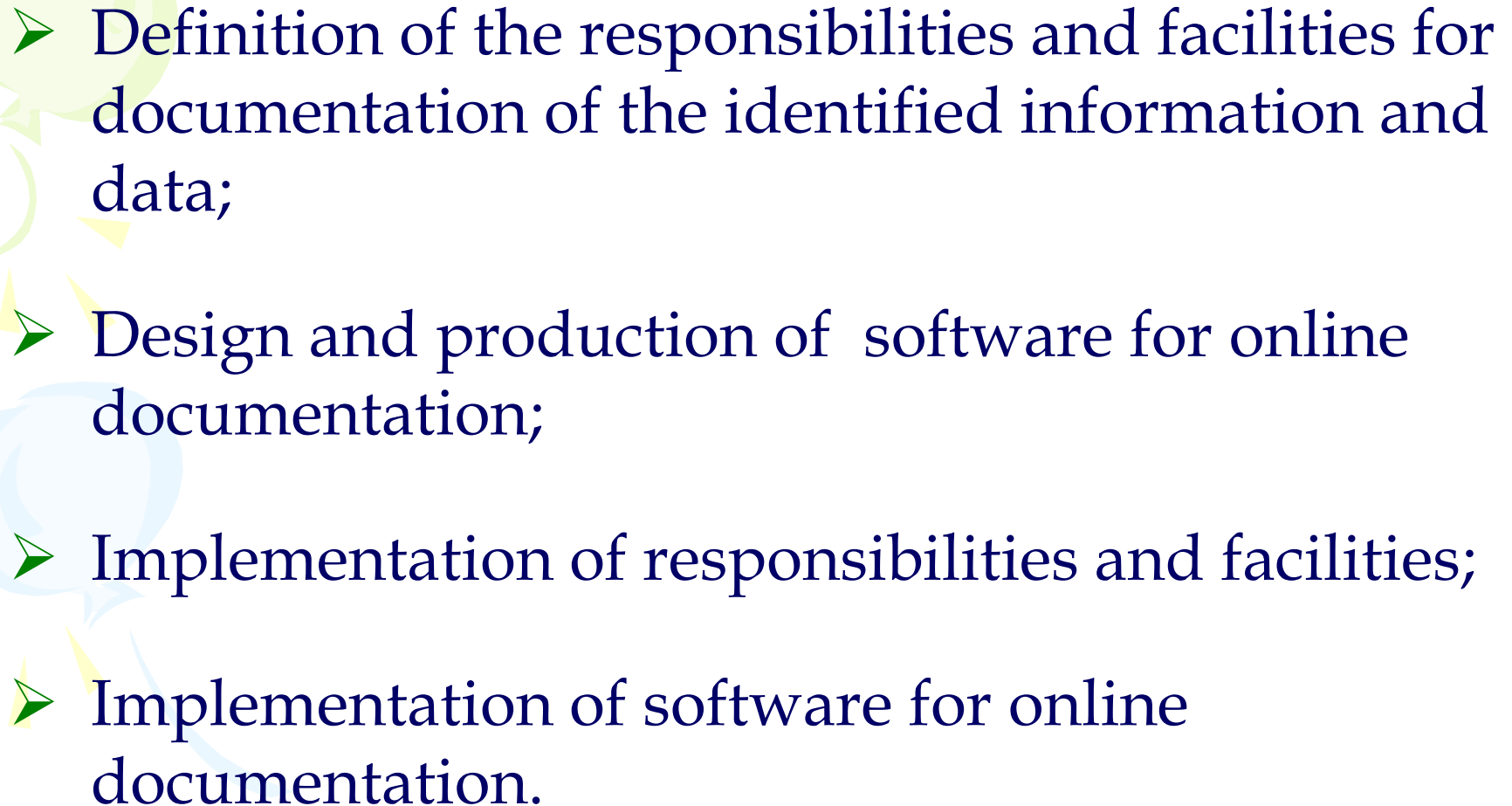
Specific objectives of the project

- to bring the current documentation process in the PCs into line with the ESG;
- to enhance the quality and to increase the comparability of SPs in PCs, in order to allow all the interested parties to formulate an informed assessment of the educational process offered by SPs and to enhance mutual trust in the quality of SPs;

- to promote modernisation of Higher Education (HE) and to increase transparency of SPs in PCs, through an on-line management of information and data necessary to assure quality of SPs;
- to promote the adoption of the online documentation system to be recognised by the competent national authorities, in order to promote its dissemination among all the universities of the PCs and its sustainability.

Main outputs and outcomes of the project

- Definition of the standards for QA of SPs in PCs;
- Identification of information and data for QA of SPs in PCs;
- Definition of the methodologies and procedures of documentation of the identified information and data;

- 
- Definition of the responsibilities and facilities for documentation of the identified information and data;
 - Design and production of software for online documentation;
 - Implementation of responsibilities and facilities;
 - Implementation of software for online documentation.



Why we started from the

*identification of the standards for QA of SPs in PCs
in order to identify the documentation for QA of SPs?*

Because documentation for QA is the

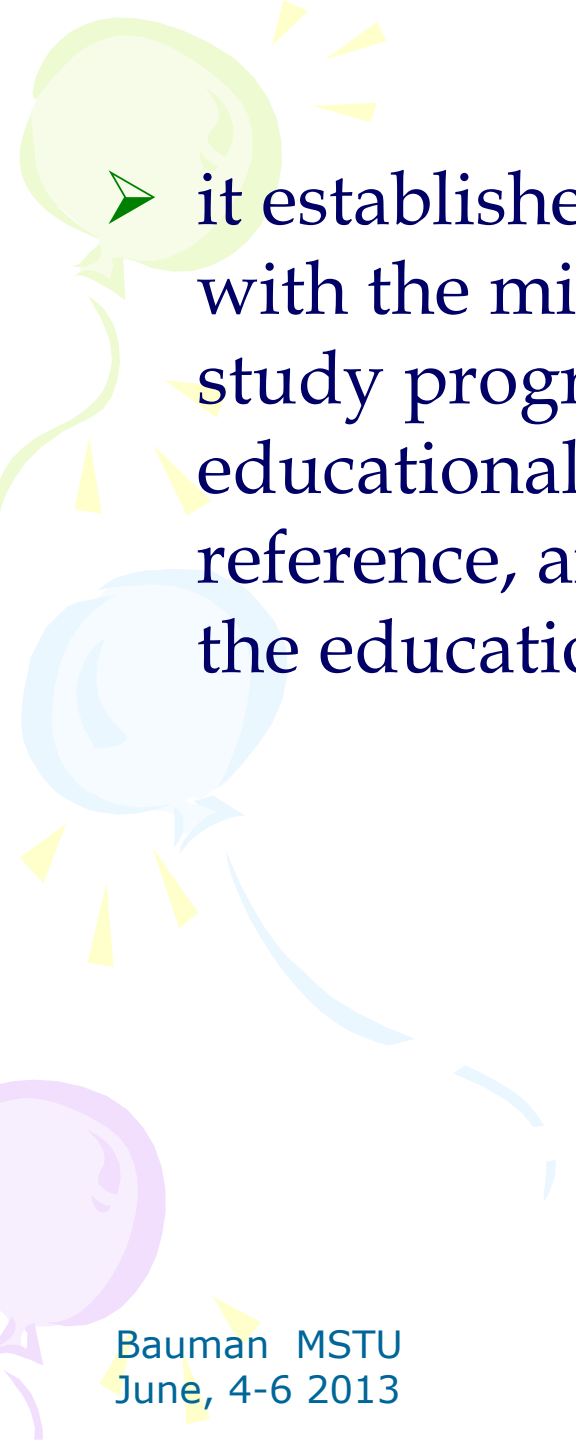
mirror of the QA system of SPs:

*it should reflect (document) the activities for the QA and
their results.*

b) Process for the identification of the documentation for QA of SPs: the DoQuP Model

Starting from the definition of “**study programme of quality**”:

“A study programme can be said of quality when it complies with the national standards and requirements and:

- 
- it establishes **educational objectives** consistent with the mission of the institution which the study programme belongs to and the educational needs of the labour market of reference, and **learning outcomes** consistent with the educational objectives;

- it designs and implements an **educational process** adequate to accomplish the learning outcomes, takes under control its development, assures a correct **assessment of students' learning** and establishes appropriate criteria for students' studies progression;
- **available resources** (teaching staff, facilities, financial resources, student support services and partnerships with businesses, research institutions and other Higher Education Institutions) are adequate to accomplish the learning outcomes and are taken under control;

- it **monitors** the results of the educational process;
- it adopts an adequate and effective **management system** for quality and guarantees the publicity of the information on the study programme;

we have defined the five '**DoQuP standards**' for the, or '**DoQuP areas**' of iQA of SPs, i.e. the principles which must inspire design, development and control of a SP:



DoQuP Standards

A – Needs and Objectives

B – Educational process

C – Resources

D – Monitoring and Results


E – Management system for quality

Why to start from the definition of the educational objectives and of the learning outcomes in the definition of a system of iQA?

Today the need of communication, transparency and recognition at national and international level requires SPs focused mainly on what a student has to learn and on the development of his/her competences

than

on what have to be taught, because it is the student who has to be prepared at best for his/her future role in the society.



*This requires the passage from a **staff-centred or input-based** approach to a **student-centred or output-based** approach, which assumes the student as the centre of the teaching and learning process.*

Then, remembering the definition of “QA of a SP”:

“the whole of the activities (processes) for the management of the educational service aimed at achieving the established educational objectives and then at ‘ensuring trust’ in meeting the quality requirements to all interested parties”

we have identified the

fundamental processes for a management for quality of SPs



A

Needs and Objectives

A1 - Identification of the educational needs of the labour market

A2 - Definition of the educational objectives

A3 - Definition of the learning outcomes



B

Educational Process

B1 - Admission requirements

B2 - Design and planning of the educational process

B3 - Realization of the educational process

C

Resources

C1 - Identification and put at disposal of the teaching staff

C2 - Identification and put at disposal of facilities

C3 - Identification and put at disposal of financial resources

C4 - Organisation and management of student support

C5 - Establishment of partnerships with national and international businesses, research institutions and other Higher Education Institutions for the development of students' external education and mobility



D

Monitoring and Results

D1 - Monitoring of the entrance students

D2 - Monitoring of the students' learning

D3 - Monitoring of the students' studies progression

D4 - Monitoring of the students' opinion on the educational process

D5 - Monitoring of the graduates' placement



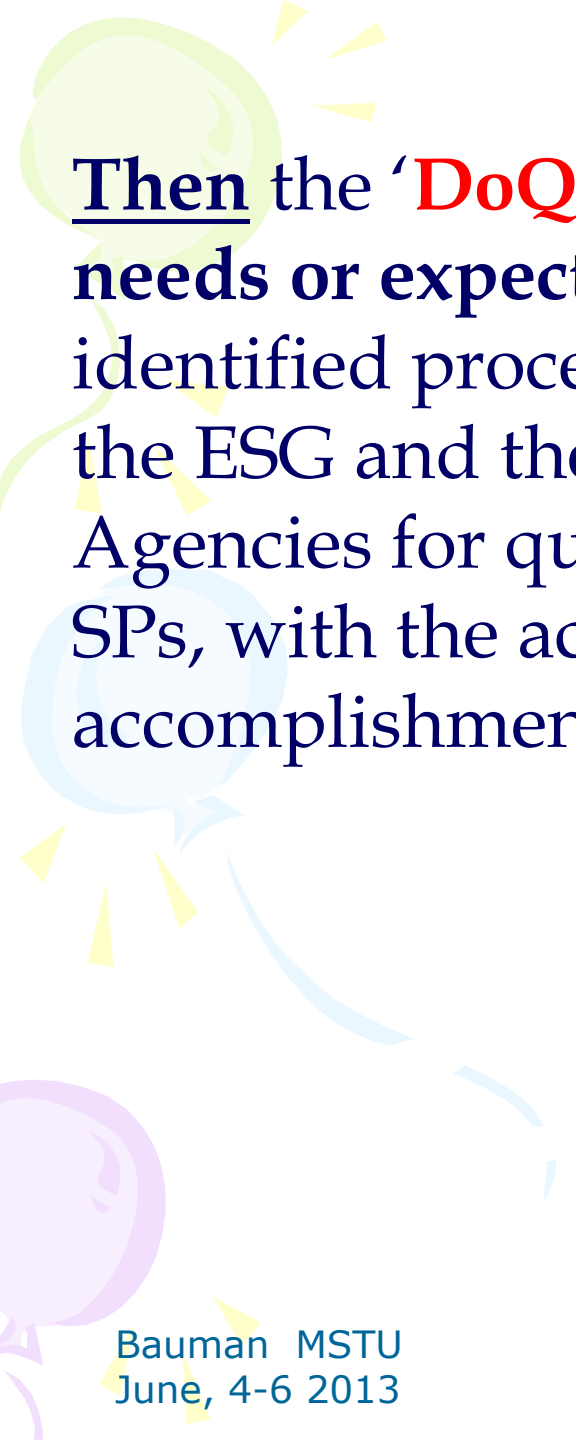
E

Management System for Quality

E1 - Definition and adoption of the management system

E2 - Revision

E3 - Publicizing of information on the study programme



Then the '**DoQuP requirements for quality**', i.e. the **needs or expectations for quality**, associated to each identified process have been established according to the ESG and the best practices of the European Agencies for quality assessment and accreditation of SPs, with the activities and behaviours for their accomplishment.

Furthermore, for each identified quality requirement the **information and data** to be documented by the SPs in order to provide evidence of the quality of the educational service offered, and therefore to assure their quality, have been established, again according to the ESG and the best practices of the European Agencies for quality assessment and accreditation of SPs.

Example

Quality Requirement A3 - Learning outcomes

The study programme should define learning outcomes in terms of what students are expected to know, understand and/or be able to demonstrate after completion of the educational process consistent with the national qualification framework, if any, and with the established educational objectives.

Expected Activities and Behaviours

The SP should establish learning outcomes in terms of what a student is expected to know, understand and/or be able to demonstrate after completion of the learning process. They should be specific for the SP and detailed in order to favour the understanding of the depth and extent of learning expected at the end of the educational process.

The learning outcomes should be adequate to the reference cycle (I or II) of the SP and consistent with the national qualification framework, if any, and with the established educational objectives.

The learning outcomes should be registered in an official document.

The SP should compare the established learning outcomes with those of other SPs of the same typology offered in the national and international contexts, in order to check the correspondences and point out the differences.

The SP should document the results of the comparison, pointing out its peculiarities with respect to the SPs under the comparison.

Required Documentation

Learning outcomes

List the learning outcomes of the SP.

Provide only information registered in official documents.

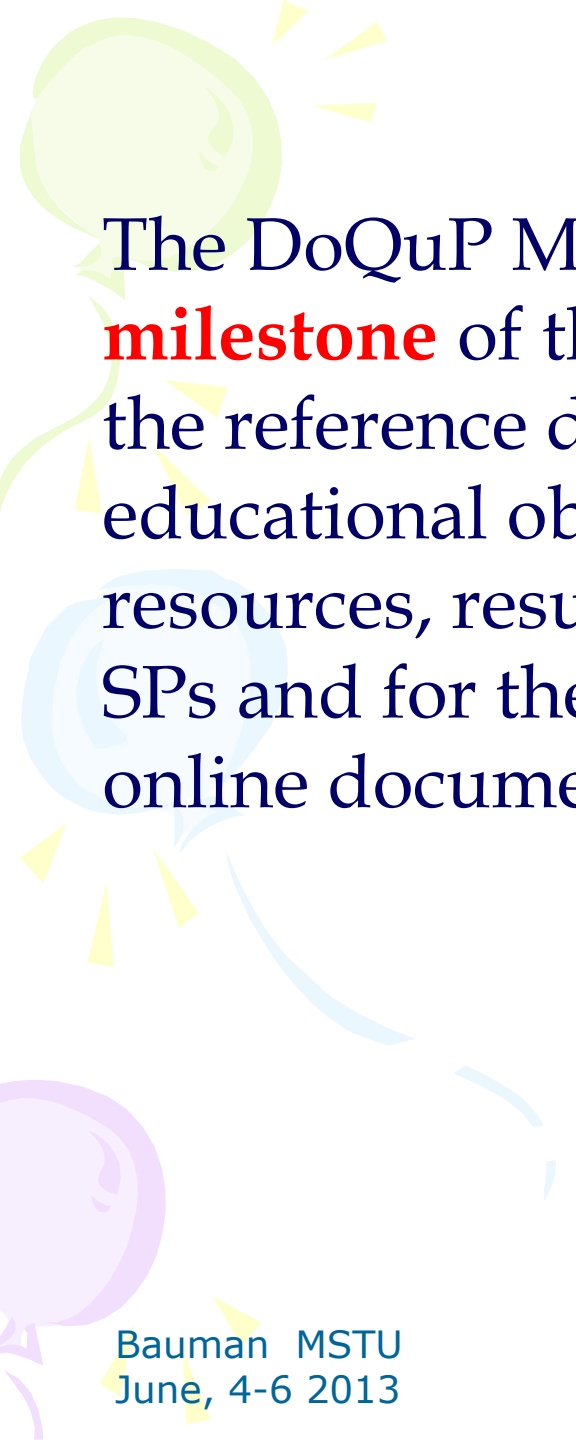
Results of the comparison with the learning outcomes of other study programmes of the same typology

Make available the hyperlink at the document where the exits of the comparison with the learning outcomes of other SPs of the same typology are registered (alternatively indicate the web site where they can be found).

The whole of standards and quality requirements, with the associated expected activities and behaviours for their accomplishment and information and data to be documented, constitute the

DoQuP Model

for the iQA of SPs.



The DoQuP Model constitutes a **fundamental milestone** of the DoQuP project because it will be the reference document for the description of the educational objectives, educational process, resources, results and management system of the SPs and for the designing of the software for the online documentation.

c) What has to be done

Definition of the responsibilities and facilities for the documentation of the identified I&D for the QA of SPs in PCs.

In this activity each partner University of the PCs will have to define the responsibilities and the necessary facilities for the documentation of the identified information and data according to the established methodologies and procedures of documentation.



➤ **Design and production of the software for the online documentation of the identified information and data for QA of SPs in PCs.**

This activity will be carried out in parallel with the definition of responsibilities and facilities for the documentation under the coordination of the “**Consorzio inter-universitario calcolo automatico italiano (CINECA)**”, partner of the project.



➤ **Implementation of responsibilities & facilities.**

In this activity at least a meaningful number of SPs of the partner Universities shall have to document their educational objectives, educational process, resources, results and management system according to the identified methodologies and procedures of documentation of the identified information and data.



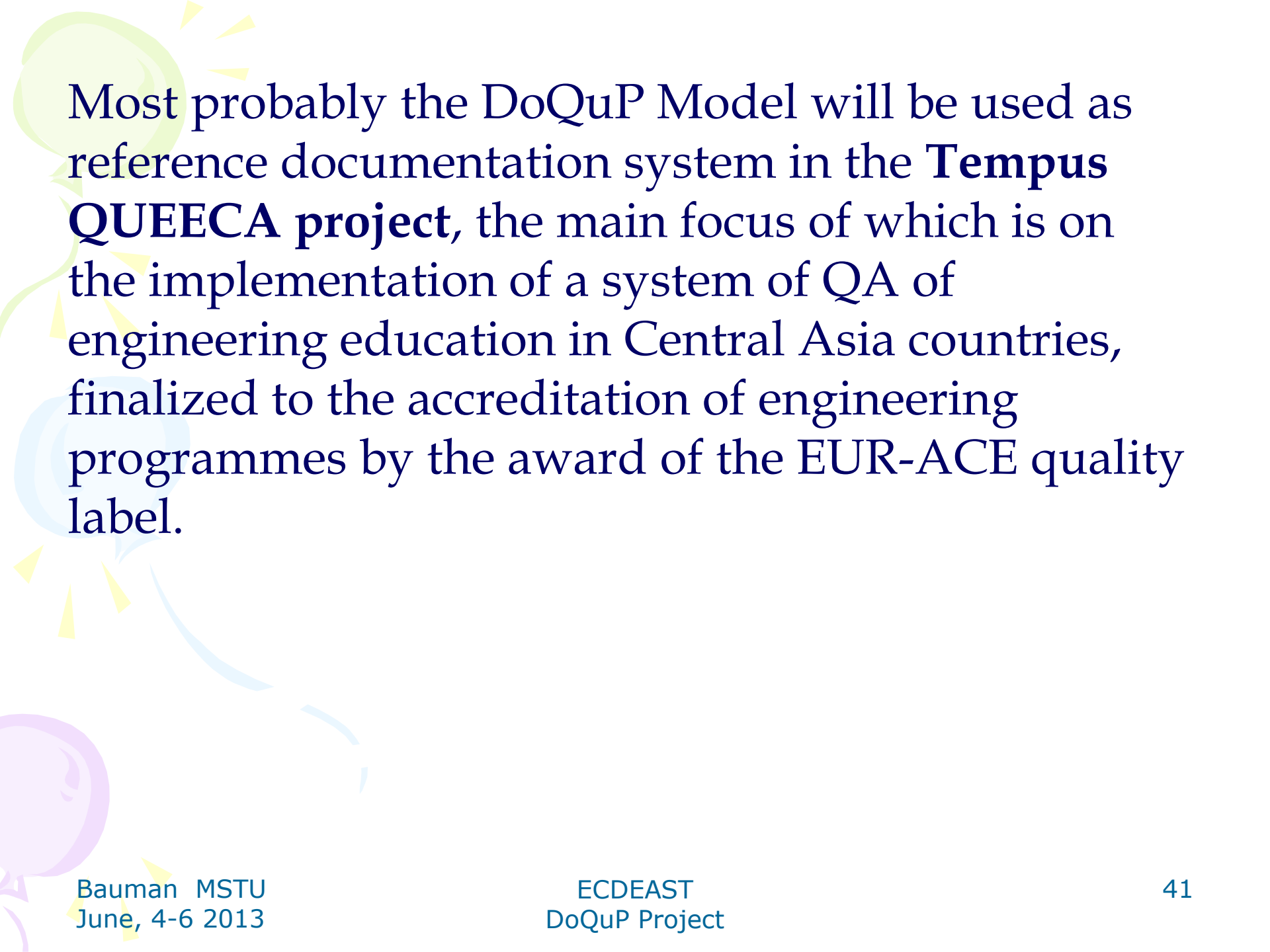
➤ **Implementation of software for online documentation.**

➤ In this activity, to be carried out in parallel with the implementation of responsibilities and facilities, the software for online documentation will be made available to each partner University of the PCs.

Conclusions

The proposed documentation system is **fully consistent** with the criteria established by the EUR-ACE system for the assessment of engineering SPs.

The DoQuP Model can be considered an **application of the EUR-ACE criteria for the quality assessment in the definition of the QA system of SPs** (not only in engineering).



Most probably the DoQuP Model will be used as reference documentation system in the **Tempus QUEECA project**, the main focus of which is on the implementation of a system of QA of engineering education in Central Asia countries, finalized to the accreditation of engineering programmes by the award of the EUR-ACE quality label.



Thanks for your attention