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Abstract	The present document presents main definitions of quality management procedures, processes of planning and execution of project activities. The goal of the document is to ensure the project maintain its quality by defining the minimum set of procedures and requirements that are needed in order to ensure an effective quality assurance and control. The manual provides the templates for reporting in appendix.

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D1.1

List Of Abbreviations

BiH- Bosnia and Herzegovina,

DMS- Document Management System

EE-Experiental education

EU- European Union

HEI- Height Education Institution

KREF- Knowledge Retention Evaluation Framework

OSCE- Objective Structured Clinical Examination

PC- Project Coordinator

PST- Project Support Team

QA- Quality Assurance Team

QCM- Quality Control and Monitoring

SC- Steering Committee

SUM- University of Mostar

TCD-Trinity College of Dublin

TG- Task Group

UBL- University of Banja Luka

Ud'A- University of Chieti-Pescara

UNIST- University of Split

UNS- University of Novi Sad

UNSA- University of Sarajevo

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1 INTRODUCTION

IQPharm project is centred on raising the quality and modernization of pharmacy studies at public universities in Bosnia and Herzegovina (BiH) including reinforcement of semi-structured experiential education (EE) in compliance with European Union (EU) standards and regulations of higher education for regulated professions.

The IQPharm objectives are:

1. Development of academic staff professional and pedagogical competencies for more interactive and practical approach to delivery/teaching and assessment of the existing pharmacy curricula through the exchange of best practices between partner and programme institutions and active involvement of major stakeholders in real sector.

2. Improvement of courses delivery through the introduction of assessment tests–Knowledge Retention Evaluation Framework (KREF) and Objective Structured Clinical Examination (OSCE) for pharmacy students.

3. Improvements in experiential education (EE) educators' (pharmaceutical professionals) training and development of E-platform for EE management and administration.

The introduction of new tools for the quality assessment of study programs (KREF) will enable the development of evidence-based recommendations for changes, modification and innovations of the existing methods of knowledge transfer, teachers' didactic approaches and syllabi.

The introduction of new system of knowledge assessment gained through the EE course (OSCE) will set equal standards at the national level for learning outcomes of pharmacy graduates.

The E-platform will ensure modernization of EE monitoring. Intensive cooperation with EU partner institutions and mobilization of all relevant stakeholders in BiH is anticipated to explore potential new models and approaches to innovative teaching, learning and assessment methods, achieving high standards of educational process and learning outcomes in accordance with the labour market demands.

2 QUALITY EXPECTATIONS

By development of guidelines for quality control and monitoring (QCM) we have formalized the methodology that will be followed by the partners of the IQPharm project with the goal to achieve the highest possible quality of the project activities, outputs and outcomes and project management.

The specific objectives that stem from the general aim of IQPharm project are:

1. Development of academic staff professional and pedagogical competencies for more interactive and practical approach to delivery/teaching and assessment of the existing pharmacy curricula through the exchange of best practices between partner and programme institutions and active involvement of major stakeholders in real sector.
2. Improvement of courses delivery through the introduction of assessment tests –KREF and OSCE for pharmacy students.
3. Improvements in EE educators' (pharmaceutical professionals) training and development of E-platform for EE management and administration.

The partners agree that these specific objectives shall always be in the forefront of all decisions to be taken. The partners therefore might decide to prioritise certain activities over others, which have a higher impact in relation to the achievement of the objectives.

Quality in the project means that the achievement of the objectives might be more important even if it means modifications such as postponing a deadline or changing some aspects of an activity.

With the related assumptions and risks in mind, we recognise all project partners to be highly motivated to raise the quality and modernization of pharmacy studies on public universities in BiH including reinforcement of semi-structured experiential education in compliance with EU standards and regulations of higher education, especially for regulated professions, amongst which is pharmacy, and thus bringing better employability of pharmacy graduates.

Apart from this, the Project Coordinating team will act transparently and demonstrate fair-play to ensure good cooperation.

2.1 THREE MAIN PILLARS OF THE IQPHARM PROJECT ARE:

A) Development of academic staff professional and pedagogical competencies for more interactive and practical approach to delivery/teaching and assessment of the existing pharmacy curricula through the exchange of best practices between partner and programme institutions and active involvement of major stakeholders in real sector.

B) Improvement of courses delivery through the introduction of assessment tests – KREF and OSCE for pharmacy students.

C) Improvements in EE educators' (pharmaceutical professionals) training and development of E-platform for EE management and administration.

Additionally, in order to become compliant with the relevant EU practice and raise graduate competencies and employability in real sector, the BiH universities will develop propositions for the additional free modules to their curricula in cooperation with programme countries' universities and major real sector stakeholders.

2.2 PROJECT ACTIVITIES AND DELIVERABLES

The project deliverables are organised in a form of tangible deliverables (eg. reports, publications, manuals, methodology, plans, printed and electronically available promotional material), as well as intangible deliverables in the form of organized events (trainings, symposia, open days, etc.).

The objectives given in the previous section, therefore, are to be achieved through five Work packages:

WP1- Preparation - *Quality of pharmacy studies: Identification of Required Changes and Improvements*

Within this Work package the Kick Off Meeting will be held in Sarajevo at the very beginning of the project (22.01.2021.) to set up a management structure and prepare initial documents and manuals.

The Required Changes and Improvements Analysis will be performed to explore the present situation in BiH and EU with regards to teaching competencies development teaching and learning process quality assessment tools, experiential education (EE) and education of pharmaceutical professionals educators.

Survey questionnaires will be employed to identify the BiH teaching staff and practitioners' attitudes related to EE and teaching competencies development; The results obtained will be used to benchmark existing activities against the current best practices in Program countries and identify the needs for improvement.

In order to introduce the Consortium and the Project objectives and activities to a wider audience, IQPharm Introductory Symposium will be organized in Sarajevo in Month 6 of the Project life-span. Academic partners (2-3 representatives from each HEI) will gather to present and discuss their respective academic staff professional and pedagogical competencies, quality of pharmacy studies on public universities in BiH including experiential education and employability of pharmacy graduates.

Program countries will contribute through presentations of their respective academic staff professional and pedagogical competencies, quality of pharmacy studies including experiential education and employability of pharmacy graduates and current regulation for State professional exam and discussion of various models for improvement.

This will be an opportunity to discuss the present situation (including the result of the analysis) with all the relevant stakeholders in BiH, since it is planned for the Introductory Symposium to be an open event for the pharmaceutical community from different sectors and students to exchange opinions and ideas. Relevant speakers from non-consortium countries will also be invited to share their experiences on the subjects of quality in pharmacy education.

IQPharm Introductory Symposium will be widely publicized to gain as wide an audience as possible.

The Required Changes and Improvements (including SWOT analysis) will be compiled and published. It will serve as a resource and reference for further project activities.

Procurement procedure will be carried out for the necessary equipment to ensure timely project carryout.

WP2-Development - *Improvement of courses delivery and pharmacy graduate competencies and employability in real sector*

This work package is central for the development of assessment tools of teaching and learning processes of pharmacy studies, i.e. KREF and OSCE, and validation of the outcomes-based assessment methodology. A number of interconnected activities are envisioned, which are aimed at human resources and technical capacity development for administration and quality assurance of KREF and OSCE as well as the use of these tests as quality assurance tools of pharmacy programs at BiH universities.

BiH and EU teaching staff will work collaboratively to design a sufficient number of case studies and questions (items) databases, of adequate quality and relevance, which will be uploaded in the Case studies virtual library as a part of E-platform. Outcomes-based assessment tools developed will be validated on an appropriate student sample. After test validation, and necessary iterations, the assessment tools developed will be available for pilot programs implementation.

Administration of both large scale knowledge retention testing and objective structured clinical examination requires a sufficient number of technical staff, adequate office space, as well as the necessary equipment. In order to develop technical capacities at the participating BiH universities, specific IT equipment purchase will be conducted in the Project Year 1.

Results and experience gained through pilot programs administration and data evaluations will be employed to create recommendations for further KREF and OSCE improvement. In addition we will identify the ways in which outputs obtained through KREF and OSCE testing may be used for curriculum mapping and continuous quality improvement in pharmaceutical professions education.

Development of relevant supporting rules and regulations necessary for the successful institutionalization of KREF and OSCE will be initiated at the individual faculty level based on draft documents produced by the IQPharm consortium.

Project activities will be also conducted through:

- *involvement of the EU and BiH project team members in the collaborative activities of the project working groups responsible for experiential education development and quality assurance, development of relevant educational resources and quality documents;*
- *engagement of the EU academic staff in teaching activities in the updated experiential education;*
- *contribution of the EU project team members in meetings and Open Day events which will be*

organized at each of the BiH HEIs;

● *structured study visits of the key BiH project team members to each EU partner HEIs and their practical placement sites (2 visits in the first, and 2 visits in the second project year) to explore and discuss different approaches to experiential education in pharmacy education; quality assurance requirements related to EE, experiences related to its development and delivery and models for teaching competencies development and evaluation. Programmes of the structured study visits and relevant reports will be prepared by the host institution project team and approved by the Project Steering Committee. Relevant presentations and reports will be issued and published on the project website;*

● *Individual study visits of the BiH academic staff to EU partner institutions aimed at teaching competencies development through job shadowing and participation in the relevant educational activities;*

● *Intensive collaboration between the BiH HEIs and associated partner institutions as well as other relevant stakeholders from different sectors across the workforce in order to develop and implement necessary improvements of pharmacy graduate competencies and employability in the workforce through the proposal of free modules (round tables / panel discussion on the selected topics will be organized).*

● *Following the pilot application of well-designed examination including OSCE in evaluating professional competencies of pharmacy students at the end of the study, a relevant Evaluation Report will be issued which will provide input for the preparation of OSCE-based recommendations on advancing current professional examination and transforming licensing examination.*

WP3- Quality Plan- *Project Monitoring and Quality Assurance*

The quality of project activities and outputs will be assured by continuous monitoring and evaluation of the performance indicators proposed. This should ensure that the project will meet the specific objectives, within the anticipated time and the allocated budget.

Project Quality Assurance Team will be established to define the internal Quality Plan and review project progress. Project Quality Plan will be prepared and agreed by all partners in the early phase of the project.

Periodical Quality Reports will be issued bi-annually and submitted to Project Steering Committee; University of Sarajevo International Relations Office; National Erasmus+ Office;

An External Expert will be appointed to review the quality of project activities and outcomes in line with the project workplan and relevant EU practices and policies.

Feedbacks from all stakeholders, periodical project quality reports, as well as the timely documentation of each activity are foreseen as the indicators of project quality.

WP4- Dissemination and Exploitation - *IQPharm Dissemination & Exploitation*

Dissemination occurs through all stages of the project. The TG 4.1 will prepare the Dissemination and Exploitation Plan within the first year. This task group will be responsible to ensure timely and appropriate dissemination of the project objectives, progress and results to consortium partners, including associate partners, and all the stakeholders.

The main objective is to communicate and share the knowledge and results acquired and obtained through the project, and build a high-profile at national level. The project activities and outputs will be disseminated to all stakeholders, as well as the wider society. The progress towards accomplishment of project objectives will be timely and appropriately publicized, to inform and further engage consortium and non-consortium partners in project activities.

In line with the overall project objectives, dissemination strategy will contribute to the awareness about the advances in pharmacy education in the EU. Special attention will be given to the European dimension of the project, convergence towards the EU practices and policies related to promotion of active learning methodologies, functional knowledge retention and challenges related to student progress testing, pharmacy licensure examination and continuing professional development, as well as the support received from the Erasmus+ Capacity Building in Higher Education Program.

The stated objectives will be reached through a range of activities, planned in line with the project timeline and budget available.

Dissemination activities will be carried out through:

- *creation of high-profile project identity (logo, website, social networks profiles);*
- *development and regular update of project website;*
- *design and distribution of appropriate promotional materials;*
- *publications and presentations of project activities and outcomes;*
- *organisation of project Open-days;*
- *communication with the press and media;*
- *creation of professional networks through social media.*

Project events and external events and conferences will present additional opportunities for dissemination of the project progress and results, not only among the partner HEIs, but also among non-consortium partners who will have the opportunity to take part in these activities. IQPharm Introductory Symposium will bring together consortium and non-consortium partners with the aim to raise the awareness of the importance of project objectives and the need for their engagement in the project activities.

IQPharm logo and Erasmus+ Programme logo will be made clearly visible on the project website, as well as project presentations and publications in order to make the project recognizable and acknowledge the EU contribution.

IQPharm Newsletters will be prepared bi-annually to report on the project activities and outcomes achieved and distributed on project website and by e-mail.

IQPharm Final Symposium will be organized as a major dissemination event aimed to present the project achievements to consortium and non-consortium partner institutions and the wider community.

Students who will attend the improved teaching and assessment processes and meet the anticipated educational outcomes, as well as upskilled teaching staff will be the best evidence of project results exploitation. Development of the quality assessment tools, experiential education framework, and upskilled teaching staff, along with the developed proposals for regulatory changes will provide the foundation for further advancement and continuous improvement.

WP5- Management - *IQPharm Project Management*

Effective project management will be secured through timely communication, common understanding and shared responsibility of each partner institution based on the adopted Project Management Structure, Project Management Manual, Project Work Plan and Partnership Agreements defined in line with the Project Grant Agreement and the Programme Guide.

IQPharm project objectives will be achieved through implementation of the following tasks and deliverables:

WP1: Quality of pharmacy studies: Identification of Required Changes and Improvements (M1-M5)

T1.1 Organization the IQPharm Kick-Off meeting (Task leader: UNSA).
T1.2 Design of the relevant survey questionnaires (Task leader: TCD).
T1.3 Organization the IQPharm Introductory Symposium (Task leader: UNSA).
T1.4 Publication of the Report (Task leader: UNIST)
T1.5 Preparation of tendering documentation, procurement of equipment and installation of the equipment (Task leader: UBL)
D1.2 IQPharm Kick-Off Meeting.
D1.3 Design of the relevant survey questionnaires.
D1.4 IQPharm Introductory Symposium.
D1.5 Quality of pharmacy studies: Required Changes and Improvements Report
D1.6 Preparation of tendering documentation, procurement of equipment and installation of the equipment

WP2: Improvement of courses delivery and pharmacy graduate competencies and employability in real sector (M6-M36)

T2.1 Structured study visit for the knowledge transfer of QA systems in pharmacy education in EU (Task leader: TCD).
T2.2 E-platform development (outlining system architecture and user requirements specification) (Task leaders: UNSA).
T2.3 KREF development (Task leader: UNS).
T2.4 OSCE development (Task leader: UNIST).

T2.5 Proposal of free modules (Task leader: UNTZ).
T2.6 Developing of the Recommendation for change of legal regulation(s) in accordance with EU Regulations 2005/36 and 2013/55 (Task leader: SUM/UBL).

D2.1 Structured study visit for the knowledge transfer of QA systems in pharmacy education in EU.
D2.2 E-platform development (outlining system architecture and user requirements specification)
D2.2.1 E-platform data collection
D2.2.2 Developing EE/E platform draft
D2.2.3 Developing EE/E Platform
D2.2.4 Training for Teaching staff for EE platform
D2.2.5 EE Platform pilot implementation
D2.2.6 Developing Institutional rules & regulations for EE Platform
D2.2.7 Assessing and improving technical & organizational capacities and Performing Post Hoc evaluation of EE Platform (corrective meeting)
D2.2.8 EE Platform implementation
D2.3 KREF development.
D2.3.1 Training for teaching staff for KREF.
D2.3.2 Developing KREF blueprint.
D2.3.3 KREF pilot implementation.
D2.3.4 Developing institutional KREF rules & regulations.
D2.3.5 Performing Post Hoc KREF evaluation.
D2.3.6 KREF implementation.
D2.4 OSCE development.
D2.4.1 Training for teaching staff for OSCE.
D2.4.2 Developing OSCE blueprint.
D2.4.3 OSCE pilot implementation.
D2.4.4 Developing institutional OSCE rules & regulations.
D2.4.5 Performing Post Hoc OSCE evaluation (corrective meeting).
D2.4.6 OSCE Implementation.
D2.5 Proposal of free modules
D2.6 Developing of the Recommendation for change of legal regulation(s) in accordance with EU Regulations 2005/36 and 2013/55.

WP3: Project Monitoring and Quality Assurance (M1-M36)

T3.1 Quality Plan, standards and procedures (Task leader: Ud‘A).
T3.2 Periodical quality reports (Task leader: UBL).
T3.3 External Expert appointment (Task leader: Ud‘A).
D3.1 Project Quality Plan.
D3.2 Periodical Quality Reports.
D3.3 External Expert appointment & report.

WP4: IQPharm Dissemination & Exploitation (M1-M36)

T4.1 Dissemination & Exploitation Plan development, implementation and evaluation (Task leader: UNS)
T4.2 Project logo design and website design and maintenance (Task leader: SUM)
T4.3 Organization of Project Open Days (Task leader: UNTZ).
T4.4 Presentation and publications of project activities and outcomes (Task leader: UNS)
T4.5 IQPharm Final Symposium planning and organization (Task leader: UNSA)
D4.1 Project Dissemination & Exploitation Plan
D4.2 Project website & social networks profiles
D4.3 Project promotional materials, newsletters, presentations and publications.
D4.4 Project Symposia & Open-days

WP5: IQPharm Project Management (M1-M36)

T5.1 Project Management Structure, Project Management Manual and Consolidated Work Plan (Task leader: UNSA)
T5.2 Project Coordination and Administration (Task leader: UNSA)
T5.3 Project Management Meetings (Task leader: SUM)
T5.4 Project Management Reports (Task leader: UNTZ)
D5.1 Project Management Structure, Project Management Manual and Consolidated Work Plan
D5.2 Project Coordination and Administration
D5.3 Project Management Meetings
D5.4 Project Management Reports

We assume that the common quality expectation for all deliverables is for them to be relevant and to reach the overall as well as all specific objectives. The authors need to focus on their development in an efficient and effective manner. We expect a timely delivery of the deliverables according to the project work-plan as identified in the Application Form and Work Plans (modified and agreed if necessary by the SC on six-month basis).

3 IMPACT OF THE PROJECT

Table 1 shows which target groups will use the project results and gives a brief description of how the target groups will reached and involved during the life of the project and afterwards and how the project will benefit the target group at the local regional, national and regional level.

Table 1 Expected impact of the project

#	Project results	Who will they impact at national, regional level?	How?
1	Institutional framework for knowledge retention evaluation in pharmacy, including the guideline document on KREF	Second-year and final year students of pharmacy and academic staff of BiH HEIs; academic staff	These groups will be directly involved in project activities and immediately impacted by the innovative knowledge retention assessment methods and quality control. Teachers training provided in Project will have the overall impact on

	application as an instrument for curriculum delivery improvement and quality assurance of study of pharmacy		teaching, learning and assessment methods and techniques. Project activities coincide with existing activities at the individual universities level directed towards the professional development of academic staff members and will complement them. These teachers are expected to act as agents of change and promote innovative practice in teaching and learning. Students involved in pilot and compulsory knowledge retention testing will benefit from valuable feedback on their progression, identification of potential knowledge gaps and areas for improvement.
2	Modernisation of experiential education of pharmacists in BiH by development and implementation OSCE	All final year students of pharmacy BiH HEIs	These groups, will be directly involved in project activities and immediately impacted by the improved curricula delivery, and innovative teaching and examination method
3	Devolopment of EE/E-platform	Final year students and teacher practitioners of BiH HEIs	The internet platform will be used as an indispensable resource for experiential education management and administration
4	Proposition of recommendations on transforming pharmacy license testing	Graduates of BiH HEIs and ministries of health	A proposal of the recommendations of legal changes of licensure procedures
5	Initiation of improving of qualification of pharmacy graduates by proposing free modules	Students of pharmacy and Masters of Pharmacy of BiH HEIs	Free modules will be proposed in cooperation with real sector stakeholders tailored on their needs for professional expertise and represent an elective courses allowing students the opportunity to personalize they education. At this stage, they will be given in the form of ideas to be further developed based on HEIs specific capacities.

4 IQPharm Quality plan work package (WP3)

Quality control and monitoring of the project will take place throughout the entire project duration. A dedicated WP3 is established to monitor and to manage the quality requirements of the project. This section of the document relies on the activities and procedures defined by the original project application, the decisions made at the kick-off meeting, and on the Partnership Agreements.

Apart from this, IQPharm also relies on the following documents as a reference:

- EACEA – IQPharm project Grant Agreement
- Six-month work plan and program
- Consolidated Work Plan
- IQPharm project Dissemination and Exploitation Plan

- Project Quality Manual
- Project Management Manual
- IQPharm project budget and task assignment
- Erasmus + Programme Guide (Version 1 (2020): 05-11-2019)
- Erasmus + Frequently Asked Questions

The quality assurance activities will be based on **qualitative data** (i.e. meeting the specified deadlines, achievement of targets and indicators) and on **quantitative data** (i.e. answers to questionnaires and reports). Data will be gathered from all project partners and key stakeholders.

4.1 IQPharm project Management

The project management will be implemented by creating the following structure:

- **Project Coordinator (PC)**
- **Steering Committee (SC)**
- **Project Support Team (PST)**
- **Work Package Coordinators (WP Coordinators**)
- **Task Group Leaders (TG leaders)**

In addition, a **Project Quality Assurance Team (QAT)** will be established.

The SC will be led by the PC and will include one representative per each project partner institution. It will also include the Project Secretary (PS).

SC is the decision-making body consisting of one representative (preferably, the contact person) from each partner institution. SC will meet twice a year (in combination with other project events due to cost efficiency) to discuss and review the progress of project activities, make decisions, approve deliverables and agree on any risk contingency measures.

Steering Committee will be responsible for:

- decision making
- approval of detailed periodical (six-month) work plan and program
- review and approval of project results/deliverables
- review of project progress
- risk assessment and recommendation of the relevant corrective and preventive measures in order to adhere to project objectives, timeline and budget allocations
- policy development and implementation (in collaboration with national professional and governmental authorities)
- procedure for selection and appointment of External Expert

- preparation and approval of Project Interim and Final Reports

Project Coordinator will be responsible for:

- communication with consortium partner institutions contact persons, WP coordinators, UNSA International Relations Office, National Erasmus+ Office and EACEA
- overall coordination of project activities
- preparation of the agenda for SC meetings and meeting minutes approval
- provision of information concerning the project overall content, direction, priorities and dissemination to all the interested parties
- preparation of the agenda for SC meetings and meeting minutes approval
- provision of information concerning the project overall content, direction, priorities and dissemination to all the interested parties
- facilitation of interaction and exchange of information and ideas among all the interested parties
- preparation and timely submission of Project Reports to UNSA International Relations Office and EACEA

Project Support Team will be responsible for:

- assisting the Project Coordinator in daily management activities
- together with Project Coordinator check the conformity of the expenditures with the budget of the project; eligibility of the expenditures; correctness and completeness of all supporting documents and certified copies of invoices; correctness of the calculations and applied exchange rates

Project Quality Assurance Team will be responsible for:

- continuous monitoring of the quality of project activities and its results, development of Project Quality Manual, and periodical internal Quality reports.

WP Coordinators will be responsible for:

- preparation of the detailed periodical (six-month) work plan and program which will be presented and approved at the SC meetings
- continuous communication and coordination with the Task Group leaders and wider project team involved in the specific activities
- realization of the work plan and production of relevant outputs and deliverables;
- periodical (six-month) reporting on the progress of WP activities to Project Coordinator and Steering Committee

TG leaders will be responsible for:

- preparation of the detailed short-term (weekly/monthly) work plan and program

- continuous communication and coordination with the Task Group members and wider project team involved in the specific activities
- realization of the specific project activities and production of relevant outputs and deliverables
- regularly reporting on the progress of TG activities to WP Coordinator.

Effective project management will be secured through timely communication, common understanding and shared responsibility of each partner institution based on the adopted Project Management Structure, Project Management Manual, Project Work Plan and Partnership Agreement defined in line with the Project Grant Agreement and the Erasmus+ Programme Guide (Version 1 (2020): 05-11-2019).

The project management will be transparent and flexible but also strict enough to ensure the implementation of the project activities in order to achieve the project's objectives.

Each partner is equally and independently responsible for assigned activities, reporting and distribution of money. Contact persons have the responsibility for the local management.

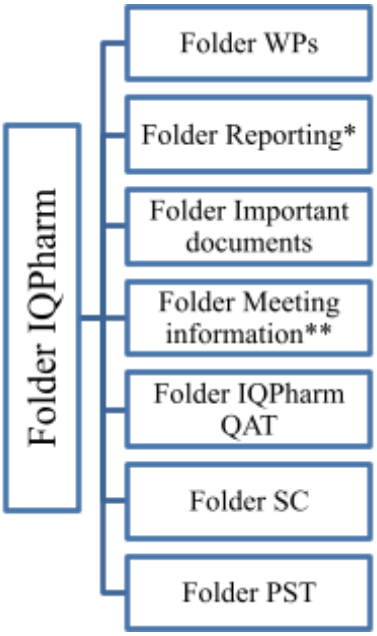
4.2 IQPharm Communication Management Plan

The coordinator will take a central and proactive role in ensuring effective communications on this project. Overall information flow within the project will be ensured by:

- The exchange of internal technical and business documents.
- All technical documentation generated by the project should be exchangeable in electronic format, according to the guidelines.
- Exchange of information will mainly occur with the help of the project's Document Management System (https://drive.google.com/drive/u/3/my-drive) and by e-mail.
- Urgent correspondence over e-mail will be sent with a request for explicit acknowledgement and indicated in the title with "URGENT".
- Ordinary mail will be used for strictly formal correspondence, i.e. when executive signatures are required.
- A web based document repository will be made available through the Document Management System.

4.2.1 Document Management System

IQPharm Document Management System (DMS) directory structure is shown on the Figure 1.



* Folder Reporting has subfolders P1-P8 for each partner institution and additional subfolders for each type of cost reporting (travel and cost of stay, staff cost, subcontracting and equipment for six-month project period)

**Folder Meeting information contains programmes, minutes, presentations

Figure 1 IQPharm Document Management System (DMS) directory structure

4.2.2 Meeting Management

Meetings will be organized using Doodle online service (http://www.doodle.com) for determining the dates most partners are available. The meeting chair is responsible for initiating meeting organization. Meetings will be held online and collocated when possible to minimize the expenses and travel time of partners. The strategy is to hold fewer but larger meetings in order to reduce costs.

All partners are required to be present to meetings either themselves or through substitute or proxy. Additionally, they must participate in a cooperative manner.

For face-to-face meetings, meeting Agenda will be prepared by the meeting chair and distributed 15 business days in advance of the meeting; the meeting agenda is also maintained within the G-Drive. Any partner can add an item to the original agenda by written notification to all of the other partners up to 2 days before the meeting. During the meeting the consortium can add new items on the agenda following a unanimous decision. Any agenda item requiring a decision from the Consortium body must be identified as such on the agenda.

Meeting minutes will be distributed within 15 business days following the meeting by the chair, according to the template - the meeting minutes template is maintained within the G-Drive. All decisions become biding after they have been recorded in the meeting minutes and the meeting minutes have been accepted by the participants.

The Meeting Chair Person is responsible for distributing the meeting agenda, facilitating the meeting and distributing the meeting minutes. The Chair Person will ensure that the meeting starts and ends on time and that all presenters adhere to their allocated time frames.

4.3 IQPharm Quality control and monitoring

Project Monitoring and Quality Assurance work package (WP3) is led by University of Chieti-Pescara (Ud'A), and is responsible for quality control and monitoring system throughout the project.

UNSA coordinates the establishment of the Project Quality Assurance Team.

QAT will prepare internal Quality Plan in line with the proposed project work plan. This task will be lead by Ud'A. Quality Plan will include relevant procedures, standards/checklists for reviews (incl. specific acceptance criteria), metrics to measure process quality and project quality goals, key performance indicators and **c**orrective **a**nd **p**reventive **a**ctions (CAPA). QAT will be responsible to define Partnership Agreement terms and conditions, including financial arrangements, reporting, and ownership/copyright of the project results, and monitor their fulfilment.

University of Banja Luka will lead the process of both the internal and external project monitoring and quality reports.

QAT will prepare bi-annual quality reports, providing an overview of the activities accomplished, potential problems and delays. Quality reports will be evaluated by the Project Steering Committee and University of Sarajevo International Relations Office. They will also be submitted to National Erasmus+ Office.

Ud'A coordinates appointment of external experts for quality control. External expert will be appointed by M18, to perform independent evaluation of project activities and outcomes and prepare relevant reports. QAT and Project SC will be responsible for External Expert selection and appointment. The resources needed will be provided through subcontracting budget line.

UNSA consolidates indicators and correction strategies (both internal and external) (T3.1 at M6) while Ud'A leads the process of internal control of project progress and outcomes. More specific tasks, such as monitoring of improving professional competencies of pharmacy graduated will be implemented and coordinated by the University of Tuzla. Strengthening intra-state and international education will be tracked by the University of Mostar. The University of Banja Luka will monitor the process of harmonization with the EU practice and policies (requirements defined in the EU Directive on recognition of professional qualifications). Finally, the University of Novi Sad and Trinity College of Dublin will lead the establishment of a monitoring system for the university-pharmacy site's collaboration.

The members of Quality Assurance Team were assigned at the project's kick-off meeting. The QAT consists of 8 members representing: University of Sarajevo (UNSA), University of Banja Luka (UBL), University of Mostar (SUM), University of Tuzla (UNTZ), University of Novi Sad(UNS), University of Split(UNIST), University of Chieti-Pescara (Ud'A) and Trinity College Dublin (TCD) and Secretary (UNSA).

It is defined in the Application and agreed at the kick-off meeting that QAT will be meeting face-to-face regularly and bi-annually. Extra meetings may be collocated with other events. Online meetings will be organised regularly bi-monthly.

Quality Pan (QP) will be performed continuously during the project realization. QP will be implemented at three levels.

- QAT will be established and it will comprise representatives of the partner universities participating in the project.
- QAT will review each project activity in consultation to the Steering committee (see WP5).
- External expert will be appointed by M18, to perform independent evaluation of project activities and outcomes and prepare relevant reports.

The external assessment members will be asked to verify the content of the QAT reports, to give recommendations on areas that could be further developed and improved, and to provide an opportunity for dialogue among evaluators and strengthen the self-assessment process.

4.3.1 QAT Activities

QAT activities will include:

1. Monitoring and evaluation of deliverables and suggest improvement strategies, including evaluation of:

- Institutional framework for knowledge retention evaluation in pharmacy, including the guideline document on KREF application as an instrument for curriculum delivery improvement and quality assurance of study of pharmacy
- Modernisation of experiential education of pharmacists in BiH by development and implementation OSCE
- Devolopment of EE/E-platform
- Proposition of recommendations on transforming pharmacy license testing
- Initiation of improving of qualification of pharmacy graduates by proposing free modules

2. Achievement of objectives:

- Improved professional competencies
- University-pharmacy sites collaboration
- Harmonization with the EU practice and policies (requirements defined in the EU Directive on recognition of professional qualifications;
- Strengthening intra-state and international education

The QAT will also report to the SC the outcome of the evaluations, the identification of deficiencies, and delays so that the appropriate countermeasures can be taken.

Reports summarizing the results of questionnaires will be sent to all project members. The effectiveness and quality of the developed project plan and outputs of the development WPs and dissemination and exploitation WP will be visible in reports.

4.3.2 Indicators

Indicators will be measured through

- Deliverables analyses,
- Surveys,
- Questionnaires.

Tabel 2 shows indicators of progress.

Table 2 Indicators of progress

Wider Objective	Indicators of progress	How indicators will be measured		
IQPharm project general aims are raising the quality and modernization of pharmacy studies on public universities in BiH including reinforcement of semi-structured experiential education in compliance with EU standards and regulations of higher education, especially for regulated professions, amongst which is pharmacy, as well as bringing better employability of pharmacy graduates.	Improved competencies of students of pharmacy and pharmacists leading to improved healthcare outcomes	1. Reports from national institutes of Public Health 2. EU Directorate General (DG) Health assessment reports 3. Euro Health Consumer Index (or equivalent) 4. Institutional self-assessment and benchmarking reports		
	Compliance with EU regulation and practice on recognition of professional qualifications			

Specific Project Objectivs	Indicators of progress	How indicators will be measured	Assumptions and Risks	How the risks will be mitigated
Development of academic staff professional and pedagogicaln competencies for more interactive and practical approach to delivery/teaching and assessment of the existing pharmacy curricula through the exchange of best practices between partner and programme institutions and active involvement of major stakeholders in real sector.	Indicators related to almost all other Specific Project Objectives such are KREF, OSCE, EE, E-platform;			
Improvement of courses delivery through the introduction of assessment tests – Knowledge Retention Tests (KREF) and Objective Structured Clinical Examination (OSCE) for pharmacy students	1. Knowledge retention test blueprint defined and adopted 2. KREF implementation performed at all universities in BiH 3. KREF Implementation Guidelines published 4. OSCE blueprint defined and adopted 5. OSCE implementation performed at all universities in BiH 6. OSCE implementation Guidelines published	1. Virtual library access, Contents, Number of items 2. KREF and OSCE rules and regulations adopted at BiH 3. HEIs; relevant decisions; new/updated documents posted on HEIs website 4. Report on compulsory KREF and OSCE implementation at all BiH HEIs, students attendance records, test sheets, feedback received from students, teachers and technical staff 5. Equipment listed in institutional inventory records 6. Number of documents published	1. Contribution and support from higher education regulatory authorities and health professionals organizations 2. Motivation of students and health care practitioners to participate and provide feedback 3. Motivation and resistance of academic staff to use novel teaching methods and resources 4. Motivation of students and health care practitioners to participate and provide feedback 5. Changes in management at faculty level in partner HEIs	1. Emphasizing the importance and role of regulatory authorities and pharmaceutical chambers in improving higher education capacities in the field of pharmacy and the need for joint cooperation 2. Emphasizing the importance of their participation in the project itself and the benefits that their colleagues and they will have as an output 3. Emphasizing the importance of the incorporation of new knowledge transfer techniques; the results

				of KREF and OSCE might be motivating factor for improvement. 4. Emphasizing the importance of their participation in the project itself and the benefits that their colleagues and they will have as an output 5. Defining an obligation in a Partnership Agreement that a changes in faculty management will not have any consequences on the implementation of the project activities
Improvements in experiential education educators' (pharmaceutical professionals) training and development of E-platform for experiential education management and administration.	Recommendations and transforming licensure based on KREF and OSCE published	1. Improvement of satisfaction of graduates based on the results of current situation vs. at the end of the project 2. Improvement of satisfaction of employers based on the results of survey at the beginning vs. at the end of the project	1. Willingness to change the regulations of the governmental institutions to which these recommendations are addressed	1. Consolidated recommendation at national level; ministries of Health at entity level included as associate partners

Outputs (tangible) and outcomes (intangible)	**Indicators of progress**	**How indicators will be measured**	**Assumptions and Risks**	**How the risks will be mitigated**
1. Organization of the IQPharm Kick-Off meeting				
1.2 Design of the relevant survey questionnaires				
1.3 Organization of the IQPharm Introductory Symposium	Introductory symposium organized in the M4			
1.4 Publication of the Report (To publish the Quality of pharmacy studies: Required Changes and Improvements Report)	QPharm Quality of pharmacy studies: Required Changes and Improvements Report published in M4	Required Changes and Improvements Report posted on the project website		
1.5 Preparation of tendering documentation, procurement of equipment and installation of the equipment	Equipment purchased and installed (M12)		Adequate and timely public procurement of required equipment and services	Adequate and timely planned public procurement of required equipment and services
2.1 Structured study visit for the knowledge transfer of QA			1. Attendance and input of all relevant stakeholders (policy makers, chambers, professional	1. Emphasizing the importance and role of regulatory authorities

systems in pharmacy education in EU			organizations, and students representatives) 2. Teacher training workshops attendance 3. Realization of financial transactions from EACEA, within deadline specified in the contract 4. Adequate and timely staff training by equipment providers 5. Fulfillment of project timeframe requirements by third party service providers 6. Student motivation for participation and providing feedback 7. Management changes that might affect the timeframe 8. Stakeholders motivation, participation and adequate feedback	and pharmaceutical chambers in improving higher education capacities in the field of pharmacy and the need for joint cooperation 2. Emphasizing the importance of their participation in the project itself and the benefits that their colleagues and they will have as an output 3. Emphasizing the importance of the incorporation of new knowledge transfer techniques; the results of KREF and OSCE might be motivating factor for improvement 4. Defining an obligation in a Partnership Agreement that a changes in faculty management will not have any consequences on the implementation of the project activities 5. Consolidated recommendation at national level; ministries of Health at entity level included as associate partners
2.2 E-platform development (outlining system architecture and user requirements specification)	1. 100 teachers trained (M4-12) 2. 20 technical staff trained (M16) 3. KREF and OSCE assessment tool blueprint adopted (M12) 4. Report on pilots KREF and OSCE implementation publicised (M26) 5. Institutional rules & regulations adopted (M28) 6. 400 students took compulsory knowledge retention test and OSCE (M34) 7. KREF and OSCE Evaluation Report adopted and publicised (M35) 8. KREF and implementation Guidelines adopted and publicised (M36 9. Case studies virtual library developed (M16)	1. Workshops program, and training materials available on the project website 2. Attendance records; Evaluation forms received 3. Blueprints (KREF and OSCE) posted on the project website 4. Virtual library access; Index; No of items 5. Institutional inventory books; equipment photos 6. Attendance lists 7. Report posted on the project website 8. New/updated documents posted on HEIs websites 9. Attendance records; Test sheets scans 10. Report posted on the project website 11. Guidelines posted on the project website and distributed to stakeholders 12. Online platform enrollment and usage data 13. Report poted on the project website 14. Publication posted on the project website		
2.3. KREF development				
2.4 OSCE development				
2.5 Proposal of free modules				
2.6 Developing of the Recommendation for change of legal regulation(s) in accordance with EU Regulations 2005/36 and 2013/55.	KREF and OSCE -based recommenations transforming pharmacist professional examination publicised (M36)			
3.1 Quality Plan, standards and procedures	Project Quality Plan prepared and adopted (M6)	Quality plan posted on the project website		
3.2 Periodical quality reports	6 bi-annual Quality Reports prepared and submitted	Quality reports posted on the project website		
3.3 External Expert appointment	External expert appointed (M24) & External expert report submitted (M36)	Decision on the External expert appointment, and External Expert Report posted on the project website		
4.1 Dissemination & Exploitation Plan development, implementation and evaluation	Project D&E Plan adopted (M6)	D&E Plan posted on the project website		

4.2 Project logo design and website design and maintenance	Project website launched and social networks profiles created (M4), and regularly updated	Website address; Social network profiles; No of website and social media posts; No of visits, no of contacts; feedback received		
4.3 Organization of Project Open Days	1. Project promotional materials, newsletters, pesentations and publications prepared, presented and/or printed 2. Project Introductory and Final Symposium, as well as 12 Project Open-days organized	1. Dissemination materials posted on the project website, and distributed by e-mail 2. Symposium agenda, presentations and reports posted on the project website; Attendance records; Photo gallery; Participants evaluation forms	Adequate mass media interest in project coverage	Carefully planned marketing and promotion of the project
4.4 Presentation and publications of project activities and outcomes				
4.5 IQPharm Final Symposium planning and organization				
WP5				
5.1 Project Management Structure, Project Management Manual and Consolidated Work Plan	Steering Committee (SC), Project Support Team (PST) and Work Package Coordinators (WPC) appointed; Project Manul and consolidated workplan adopted (M4)	1. Decision on SC, PST and WPCs appointment 2. Project management manual, and consolidated workplan posted on the project website		
5.2. Project Coordination and Administration	Day-to-day coordination, communication, and reporting	e-mails, timesheets, staff conventions, travel reports, orders, invoices and other relevant supporting documents available		
5.3. Project Management Meetings	SC meetings held regularly	SC meetings minutes; Attendance lists signed		
5.4. Project Management Reports	1. Periodical project progress reports prepared and approved 2. Project interim and final reports prepared and submitted to EACEA in time	Project reports submitted to SC and/or EACEA		

Table 3 shows short term impact indicators during the project EU funding period.

Table 3 Short term impact indicators

Short term impact	Target groups/potential beneficiaries	Quantitative indicators (in numbers please)	Qualitative indicators
Improved pharmacy student competencies	BiH pharmacy students	KREF test results; GPA improvements and exams pass/fail ratio improvement	KREF evaluation reports; better acquisition of new knowledge due to better foreknowledge
E-platform introduction	BiH pharmacy students; teacher practitioners	Number of registered students and number of registered pharmacies; number of successful outcomes monitored by the E-platform	E-platform reports; results of satisfaction surveys of students and practitioners
Experiential education modernisation	BiH pharmacy students	Number of students successfully completing the OSCE	OSCE evaluation reports; shorter time for adaptation in new workplace environment
Proposal of free modules	Students of pharmacy	Number of free modules proposed	Feedback from students and stakeholders

Table 4 shows long term impact indicators after the project EU funding period.

Table 4 Long term impact indicators

Long term impact	Target groups/potential beneficiaries	Quantitative indicators (in numbers please)	Qualitative indicators
Improved professional competencies	Pharmacy graduates; pharmaceutical professionals	Smaller number of pharmaceutical mistakes	Improved pharmaceutical healthcare; greater patient satisfaction
University-pharmacy sites collaboration	Pharmacy students/academic staff and teacher practitioners	Number of teacher practitioners engaged; Number of approved practice sites; Number of cooperation agreements	Level of professional competencies of pharmacy students and health practitioners Students' employability Patient health care
Harmonization with the EU practice and policies (requirements defined in the EU Directive on recognition of professional qualifications;	Higher Education Institutions/graduate students/wider society	Number of documents issued	Proposal form of regulation acts, amendments and update of the institutional and national regulation
Strengthening inter-state and international education	International and domestic pharmacy students/teaching staff	Number of international/domestic stakeholders engaged in proposing a free modules	Increased workforce mobility
		Number of international/ domestic staff engaged in proposing of free modules	Improved teaching, learning and assessment

4.4 IQPharm quality procedures

Quality Assurance Team activities are performed continuously during the project duration.

The WP leader is Ud'A.

The QAT is to be established at the Kick-Off meeting by assembling a team of representatives from each project partner institution and secretary.

One External Expert is to be appointed.

Project Monitoring and Quality assurance will cover two main areas.

- Quality control and contingency planning of the project activities and results,
- Monitoring the level of achievements the targeted goals.

The main activities comprise of:

- Consolidation of areas to be monitored with selected indicators and correction strategies (both internal and external).
- Internal control of project progress and outcomes.
- Monitoring of graduates profile, improvements in skills, and correspondence to pharmacy needs.
- Monitoring of the improvements of universities-pharmacy sites collaboration
- Monitoring of the degree of harmonization with the EU practice and policies (requirements defined in the EU Directive on recognition of professional qualifications
- Monitoring of the strengthening intra-state and international education
- Collect questionnaires and surveys, taking advantage also of social networks.
- Establish a monitoring system for employment statistics of graduates in pharmacy for monitoring of employability/employment improvements

The project activities and deliverables will be constantly monitored in consultation with the SC. Deviations and difficulties will be examined and actions for quick solution will be determined. The External Expert activities will be: to overview and verify the internal QAT report, to give recommendations on areas that could be further developed and improved, and to provide an opportunity for dialogue among evaluators and strengthen the self-assessment process.

Indicators will be measured through deliverables analyses, surveys and questionnaires. QAT activities will also include evaluation of student, academic staff, experiential professional and stakeholders reactions, achievement of objectives and impact of the project on the institutions as a whole, as well as the project results in terms of increased cooperation with the socio/economic environment, the correspondence between the graduates skills and pharmaceutical market needs, the time-to-employment of graduates and statistics of employment, student awareness of their skills and their entrepreneurial attitude, and job opportunities. In particular, the QAT will assess and monitor the correspondence between objectives and graduate profile, alignment of professional and academic requirements.

Quality indicators will follow: the development of quality control guidelines adopted and distributed to all partners, reports on project implementation made by WP leaders and evaluated by QAT.

Apart from establishment of quality indicators and monitoring, quality-related measures also include design of various templates to further facilitate procedures related to activities leading to staff costs and travel costs (exp. justifying travelling by personal car, etc.); the use of templates will be mandatory.

4.5 Effort and Cost Management Plan

The Project Coordinator is responsible for managing and reporting on the project's budget and effort consumption at the project level to the European Commission throughout the duration of the project. During the internal bi-annualy, interim and annual progress reports, the Project Coordinator collects, presents and reviews the project's effort and cost performance for the preceding period. Performance is measured comparing actual consumption against planned. The Project Coordinator is responsible for accounting for cost and effort deviations and presenting the consortium with options for getting the project back on budget.

4.5.1 Effort and costs management approach

Effort and costs for this project will be managed at the Work Package Structure. The financial performance of the project will be measured and managed through comparisons between the actual comparison and the effort calendar and cost baselines. Activity effort is detailed at the task level and costs at the WP level. To avoid confusion and complications due to conflicts between National and European Union reporting rules, all efforts are to be reported in whole hours. Euro amounts are to be reported in two decimals. Effort and cost variances of +/- 10% in the cost and effort performance indexes will change the status of the cost to cautionary. Cost variances of +/- 20% in the cost and effort performance indexes will change the status of the cost to an alert stage. These will serve as input to Risk Assessment and may require corrective action by the Project Coordinator in order to bring the cost and/or effort performance variations below the alert level. Corrective actions will require a project change request and be must approved by the EACEA before it can become within the scope of the project.

4.5.2 Reporting Effort and Budget Consumption

The following reports are established:

- Interim Progress Reports
- Final Progress Reports

In addition, the PC on a bi-annually basis is updated internally on the project progress status via the bi-annually management reports i.e. effort resource consumption .xls files received by all partners, and the activity bulleted reports provided by the WPLs.

4.5.3 Guidelines for Unplanned Expenses

The Article 5 in the Partnership Agreement details a payment arrangement for each partner in IQPharm. Any effort or cost allocation which deviates from this plan presents an unplanned expense. In general terms, unplanned expenses are not allowed. However, due to the realities of implementing a project, there is the possibility that reasonable and justifiable expenses contributing to the project and not contradicting the rules of the project may be eligible. If a partner has a cost which they believe fall under this category, they must obtain permission from the SC before incurring the cost. To do so, they need to discuss the issue with the leader of exact WP. If they concur, they should e-mail the PC with a justification to the cost requesting from the PC to obtain approval from the SC. Follow due diligence, the SC may reject the justification and inform the partner or accept it and inform the partner.

4.5.4 Measuring project effort and costs

Following each internal bi-annually management report, the PC will use a comparison between actual against planned to measure variance. If the effort and cost has a variance of between 10% and 20% of planned the reporting HEI must report the reason for the exception. If the variance is greater than 20% the reporting HEI must report the reason for the exception and provide the SC with a detailed corrective plan to bring the project's performance back to acceptable levels.

4.5.5 Effort and cost variance response process

Once the variation exceed the 20% threshold the reporting HEI must present the SC with options for corrective actions. The HEI will develop corrective action plan to bring the project back on track. Once the SC approves the plan, the change control procedure will be activated and the action plan will become part of the project plan.

4.6 Procurement Management Plan

During the project, partners will be required to acquire from third parties the following services (Table 5):

Table 5 Subcontracting costs

Work Packgage	Partner N⁰	Name of Partner	Country	Nature, type and specification of item	Amount Excluding VAT (EUR)	Total (EUR)
Preparation	P1	University of Sarajevo	Bosnia and Herzegovina	Open event (Introductory Symposium) to reach the community in Sarajevo: organization costs (room renting, catering, publicity material, translation services, support to keynote speaker)	10.000,00	10.000,00
Preparation	P1	University of Sarajevo	Bosnia and Herzegovina	Printed material for project presentation and promotion	5.000,00	5.000,00
Preparation	P1	University of Sarajevo	Bosnia and Herzegovina	Translation costs: Bosnian/Croatian/Serbian - English (documents requiring official translator stamp)	3.000,00	3.000,00
Preparation	P5	University of Novi Sad	Serbia	Translation costs: Bosnian/Croatian/Serbian - English (documents requiring official translator stamp)	2.000,00	2.000,00
Preparation	P6	University of Split	Croatia	Translation costs: Bosnian/Croatian/Serbian - English and Italian (documents requiring official translator stamp)	2.000,00	2.000,00
Development	P1	University of Sarajevo	Bosnia and Herzegovina	Translation costs: Bosnian/Croatian/Serbian -	2.000,00	2.000,00

				English (documents requiring official translator stamp)		
Quality Plan	P1	University of Sarajevo	Bosnia and Herzegovina	Quality control external expert providing advice and assessment of Project activities and deliverables	3.000,00	3.000,00
Dissemination and Exploitation	P3	University of Tuzla	Bosnia and Herzegovina	Printed material for project presentation and promotion	5.000,00	5.000,00
Dissemination and Exploitation	P1	University of Sarajevo	Bosnia and Herzegovina	Open event (Final Symposium) to reach the community in Sarajevo: organization costs (room renting, catering, publicity material, translation services, support to keynote speaker)	10.000,00	10.000,00
Management	P1	University of Sarajevo	Bosnia and Herzegovina	External financial control and audit of the Project	5.000,00	5.000,00

During the project, partners will be required to acquire equipment (Table 6).

Table 6 Equipment procurement

Work Packgage	Partner N⁰	Name of Partner	Country	Nature, type and specification of item	Amount Excluding VAT (EUR)
Preparation	P1	University of Sarajevo	Bosnia and Herzegovina	Smart panel - LED display with LCD illumination (A level). HyPr Touch with IR touch technology, up to 20 touch points simultaneously. 65 "screen with 4K Ultra HD resolution. Connections: 3x HDMI input, 1x HDMI output, VGA, 2x RJ45, USB type Ax2 and Bx3, OPS slot, RS-232, Android IQ with 4 GB of RAM and 32 GB of memory, included wall mount, two pens, remote control and Smart notebook application.	2.765,00
Preparation	P1	University of Sarajevo	Bosnia and Herzegovina	45 x Laptops (Intel, Core 2,30 GHz, Core 2, 8 GB, 15,6", 1920x1080, SSD 256 GB)	21.735,00
Preparation	P1	University of Sarajevo	Bosnia and Herzegovina	Inverted microscope	3.790,00
Preparation	P1	University of Sarajevo	Bosnia and Herzegovina	A biosafety cabinet (BSC) - Main body made from cold rolled steel with antibacterial powder coating. H14 HEPA filter 2pcs 99,9995% efficient. UV lamp with timer. Two water proof sockets. LCD display. Foot switch. External size: 1100x750x2250. Maximum opening mm: 420 Uv lamp: 1*30 W at 253,7 nm. Consumption: 760W	6.000,00
Preparation	P1	University of Sarajevo	Bosnia and Herzegovina	Centrifuge - Refrigerated, temperature range -12 °C to 40 °C. Max. volume ml 400 . Max. number of tubes 4 x100. 34x41x71. Power 960 W. Weight 39 kg	5.000,00

Preparation	P1	University of Sarajevo	Bosnia and Herzegovina	Water purification system - laboratory scale (conductivity 1,5 uS/cm or better)	2.500,00
Preparation	P1	University of Sarajevo	Bosnia and Herzegovina	Atomic absorption spectrophotometer with graphite techniques	32.500,00
Preparation	P1	University of Sarajevo	Bosnia and Herzegovina	Dissolution tester with basket set, enhancer cell set and paddle over disk USP 5	8.100,00
Preparation	P1	University of Sarajevo	Bosnia and Herzegovina	Laboratory mixer - pilot scale with standard mixing assembly (10000 rpm; 50 - 10000mL)	6.400,00
Preparation	P1	University of Sarajevo	Bosnia and Herzegovina	Incubator (Working-temperature range 5 °C above ambient temperature up to +50 °C. Standard sterilisation programme: 60 minutes at 180°C. Setting temperature range +18 to +50 °C. CO₂ control Digital electronic CO2 control with dual beam NDIR system, with auto-diagnostic system and acoustic fault indication, barometric pressure compensation. Adjustment range CO₂ 0 to 20 % CO2. Dimensions 560 x 700 x 400 mm. Interior material 1.4301 (ASTM 304), corrosion resistant. Volume 156 l. Max. loading of chamber 120 kg. Voltage Electrical load 230 V, 50/60 Hz approx. 1500 W) Extractor	6.800,00
Preparation	P1	University of Sarajevo	Bosnia and Herzegovina	Biochemical analyzer (240 analysis per hour, biochemical and turbidimetric tests, metacrylic rotor 120 reaction sites, reusable refrigerator for 30 reagent vials)	10.000,00
Preparation	P2	University of Banja Luka	Bosnia and Herzegovina	6 × Notebook computer – minimal spec. or better (OS: Windows 10 Pro 64bit, Display: 15.6“, Rezolucija: 1920x1080 CPU: Intel Core i5, RAM: 8GB DDR4, SSD: 500GB, VGA, mouse)	4.080,00

Preparation	P2	University of Banja Luka	Bosnia and Herzegovina	1x Ipad Air 4 (Display: 10.9-inch (diagonal),IPS LED, min. 2360x1640, supports pencil,Capacity 64GB,slot for Sim card, 12 MP camera)	980,00
Preparation	P2	University of Banja Luka	Bosnia and Herzegovina	6 x Tablet (Display: 10,4" IPS LCD capacitive, Octa-core, RAM: 3 GB, Memory 32 GB)	1.880,00
Preparation	P2	University of Banja Luka	Bosnia and Herzegovina	10 × Notebook computer – minimal spec. or better (Notebooks wil be used for implementation of KREF and OSCE that are beeing introduced by the project and for training of pharmacy graduates in the field of computational chemistry)	3.700,00
Preparation	P2	University of Banja Luka	Bosnia and Herzegovina	Multifunctional device: copy, print, colour scan with catridge (Output speed: 20ppm, Standard duplex printing and support for USB print and scan)	770,00
Preparation	P2	University of Banja Luka	Bosnia and Herzegovina	LED TV (up to 55" (140 cm), LED, 4K UHD. Smart,WIFI in, LAN)	500,00
Preparation	P2	University of Banja Luka	Bosnia and Herzegovina	ConferenceCam (Full HD 1080p (up to 1920 x 1080 pixels)	470,00
Preparation	P2	University of Banja Luka	Bosnia and Herzegovina	2 × Presenter (Presentation Functions: Next Slide, Previous Slide, Start / End Slide, Black Screen)	95,00
Preparation	P2	University of Banja Luka	Bosnia and Herzegovina	Digital Voice Recorder (Built-in Memory: 4 GB PC Connectivity: Yes Built-in Microphone: Stereo Recording Format: MP3/L-PCM Playback Format: MP3/WMA/AAC-LC/L-PCM Battery Type: Dry Battery Maximum files (total): 5000 Maximum files per folder: 199 Max. Recording time MP3 48 kbps (monaural), 159 Hrs)	68,00
Preparation	P2	University of Banja Luka	Bosnia and Herzegovina	5 × Laser printer (22 pg/min, Res. Up to 600 x 600 dpi, (1200 dpi effective	342,00

				dpi with HP FastRes 1200). Processor: 600 MHz. Memory: 128 MB)	
Preparation	P2	University of Banja Luka	Bosnia and Herzegovina	2 × Video projector (Res up to 1080p. 3200 lum. Contrast 10,000 : 1. Aspect Ratio 4:3. Lamp 210W. Lamp lifetime normal / eco 4000h / 6000h. Watching Size: 122 x 91cm - 366 x 274 cm. projector distance 2,38 - 7,87m)	770,00
Preparation	P2	University of Banja Luka	Bosnia and Herzegovina	2 × Projector screen (up to 180x180, rollo)	120,00
Preparation	P2	University of Banja Luka	Bosnia and Herzegovina	GastroPlus software (selected modules)	10.360,00
Preparation	P2	University of Banja Luka	Bosnia and Herzegovina	GraphPad Prism software (10 seats, 3 year subscription)	3.075,00
Preparation	P2	University of Banja Luka	Bosnia and Herzegovina	8 × Conversion kit for small-volume dissolution (From 1000ml to 400 ml including mini glass 400ml beaker and mini paddle)	4.020,00
Preparation	P2	University of Banja Luka	Bosnia and Herzegovina	Laboratory accessories	930,00
Preparation	P2	University of Banja Luka	Bosnia and Herzegovina	Touch Screen Rotational Viscometer (5-inch full color, touch screen display supports multiple languages; Displayed info includes: viscosity (cP/mP·s), temperature (°C/°F), shear rate/stress, % torque, spindle/speed, step program status; Built-In options: timed tests, data averaging, programmable QC limits/alarms, customizable speed/spindle lists, on screen data comparison Magnetic coupling system, durable ball bearing suspension system, quick action lab stand and RheocalcT software)	4.275,00
Preparation	P2	University of Banja Luka	Bosnia and Herzegovina	"Vitastiq (high accuracy of vitamin readings indicates the general trend of 26 vitamins and minerals in-app video tutorials predefined templates iOS 9.0 or newer (recommended newer)	170,00

				Android 4.3 (recommended 5.0.and newer) made of titanium connects via BT works on devices supporting BT LE 4.0)"	
Preparation	P2	University of Banja Luka	Bosnia and Herzegovina	Bottle top dispenser (Bottle top dispenser (Piston – 99.7% pure Al2O3; Barrel – Duran® borosilicate glass; Valve block and housing – ECTFE; Valves – borosilicate glass ball and seat (HF: ceramic); Hastelloy® discharge valve spring Suction and discharge tubes – FEP; Sterilization – Steam sterilizable at 121°C/2 bar, complete unit without disassembly; Luer-lock connection – for filters and drying tubes)	940,00
Preparation	P2	University of Banja Luka	Bosnia and Herzegovina	Traube Stalagmometer (for smaller amounts of viscous liquids;to determine the surface tension, approach for attaching the needle valve (air regulator) and thus for easier handling)	140,00
Preparation	P2	University of Banja Luka	Bosnia and Herzegovina	Traube Stalagmometer (for larger quantities of thin liquid approx. 6.3 ml; angled; to determine the surface tension)	130,00
Preparation	P2	University of Banja Luka	Bosnia and Herzegovina	Ubbelohde viscometer (calibrated, for manual measurements, with constant, manufacturer certificate)	430,00
Preparation	P2	University of Banja Luka	Bosnia and Herzegovina	2x Pipette controller (Weight: 190 g, Operating- and charging temperature: +10 °C to + 35 °C, Pipetting speed: 50 ml in less than 10 seconds, Application: for glass and plastic	860,00

				pipets from 0.1 to 100 ml, Battery pack: NiMH-battery 2,4 / 700 mAh)	
Preparation	P2	University of Banja Luka	Bosnia and Herzegovina	Pippete set (F1-ClipTip Set, Single Channel 1-10 µL ,10-100 µl; 100-1000 µL)	520,00
Preparation	P2	University of Banja Luka	Bosnia and Herzegovina	Water bath with 8 places (Temperature: Ambient + 5°C to 100°C, Temperature control: digital control with LCD monitoring, 8 x Concentric Ring Cover Sets, Internal vessel from stainless steel, Electrical power supply: 220V/50Hz)	1.025,00
Preparation	P2	University of Banja Luka	Bosnia and Herzegovina	"Cito-Unguator E ili E/S ili 2000 (with push-up jars 15-200 ml; Electrical mixing unit Unguator type	1.800,00
Preparation	P2	University of Banja Luka	Bosnia and Herzegovina	Analytical Balance (Automatic internal adjustment, Single cell weighing system – monoblock, Maximal weighing load: 220g, Readout: 0,1mg, Protective working cover, LCD display Weighing surface: stainless steel round pan Power supply adapter)	2.050,00
Preparation	P3	University of Tuzla	Bosnia and Herzegovina	2 × LCDs (43" (108 cm) 4K UHD Ultra Slim Smart TV)	1.000,00
Preparation	P3	University of Tuzla	Bosnia and Herzegovina	15 × Tablets (10"HD(1280x800) Android 8.0)	2.250,00
Preparation	P3	University of Tuzla	Bosnia and Herzegovina	10 × Laptops (Intel, Core 2,30 GHz, Core 2, 8 GB, 15,6", 1920x1080, SSD 256 GB)	4.750,00
Preparation	P3	University of Tuzla	Bosnia and Herzegovina	Desktop PC + monitor (290 G3 MT / i3-9100 / 4GB / 1TB HDD / W10p64 / DVD-WR / 1yw / kbd / mouseUSB)	600,00
Preparation	P3	University of Tuzla	Bosnia and Herzegovina	4 × Video-Projector (SVGA, 3600lm, 20.000:1, HDMI, speakers)	1.300,00
Preparation	P3	University of Tuzla	Bosnia and Herzegovina	Photocopying machine (Color laser printing technology; Maximum print	3.250,00

				size A3; Purpose business use; Print speed, 25 ppm; Connecting USB printers, networks, WiFi; Automatic double-sided print yes; 1200 x 1200 dpi print resolution)	
Preparation	P3	University of Tuzla	Bosnia and Herzegovina	Printer	100,00
Preparation	P3	University of Tuzla	Bosnia and Herzegovina	2 × Access point wireless router	500,00
Preparation	P3	University of Tuzla	Bosnia and Herzegovina	Cisco Switch 24 port	500,00
Preparation	P3	University of Tuzla	Bosnia and Herzegovina	Fluorescent microscope with imaging software (Observation method: bright field, DIC, fluorescence (ultraviolet, blue/green excitation); filters for fluorescence; trinocular tubus; X-line objectives; Iluminator: transmitted Köhler Illuminator – LED lamp, Fluorescence Illuminator -100 W Mercury Lamp, Light Guide Illumination; Stage manual with Right-Hand Control; Microscope color camera cca 2000 x 1900 pixels. Software for microscope: image acquisition and documentation, providing all the tools needed for simple image acquisition)	30.250,00
Preparation	P4	University of Mostar	Bosnia and Herzegovina	9 × Laptop computer (OS: Windows 10 Home Display: 14'' IPS Touch, Resolution: 1920x1080 CPU: IntelCorei3-10110U (2.1-4.1 GHz, 4MB) RAM 4GB DDR4 SSD:256GB VGA: Intel UHD Connectivity WiFi, Bluetooth, Ports: 2xUSB3.1. typeC, HDMI, AUX, SD card reader, battery 3-cell) OS: Windows 10 Display: 14'' IPS Touch, Resolution: 1920x1080 CPU: IntelCorei3-10110U (2.1-4.1 GHz, 4MB) RAM 4GB DDR4 SSD:256GB VGA: Intel UHD Connectivity WiFi, Bluetooth, Ports: 2xUSB3.1. typeC, HDMI, AUX, SD card reader, battery 3-cell	6.480,00

				or: Screen 14.0" / 1920 x 1080px / IPS Processor AMD Ryzen 5 4500U (2300 - 4000MHz) / 6/6 / 8192KB; Memory 8GB DDR4 (-Mhz); Hard disk 256GB SSD; Grafic: NVIDIA GeForce MX350 2GB GDDR5; OS: Windows 10 ; Ports HDMI, USB 2.0 x1, USB 3.2 x1, USB-C 3.2 x1, Audio-Combo Bluetooth/WiFi; Optics / Audio/Camera No/ Stereo speakers/Yes; Weight 1.15kg Warranty: 1 year	
Preparation	P4	University of Mostar	Bosnia and Herzegovina	9 × All-in-one personal computer (OS: Windows 10 Home Display: 23.8'' Resolution: 1920x1080 CPU: IntelCorei5-9400T (1.8 GHz, 6MB) RAM 8GB DDR4 SSD:256GB Graphics: UHD 360 Ports: 2xUSB3.0, 2xUSB2.0, HDMI, , Network LAN, WiFi)	5.877,00
Preparation	P4	University of Mostar	Bosnia and Herzegovina	3 × Projector, with wall hanger (Technology: LCD. Resolution: 1024x768. (max 1920x1080). Contrast: 4000:1. Light: 3600. Bulb: 6000eko/5000 standard/ 3800 bright light. Sound: 20W. Ports: D-Sub, RJ-45, 2x USB 2.0, mini D-Sub, 2x HDMI, RCA.)	2.916,00
Preparation	P4	University of Mostar	Bosnia and Herzegovina	2x laboratory benchtop pH meter; includes instrument, glass pH electrode with built-in 221 temperature sensor, 1 m cable and articulated stand, three buffers (4,00/7,00/10,00), plastic beaker and instruction manual	1.600,00
Preparation	P4	University of Mostar	Bosnia and Herzegovina	1x Spectrophotometer, Single-beam spectrophotometer, for 1cm cuvettes: Display Graphic LCD, Absorbance range -0,3...+3,0 A: Photometric stability ±0,002 A/h @ 500 nm: Photometric accuracy	2.560,00

				±0,2% T: Photometric range 0 – 200% T: Wavelength range 190 – 1100 nm: 2 quartz cuvettes included 1 cm, 4 optic glass cuvettes included 1 cm	
Preparation	P4	University of Mostar	Bosnia and Herzegovina	Glassware/labware/consumables ((filtration funnels, Erlenmeyer flasks, flask glass round bottom, volumetric glass flask, reagent bottle, lab spatula, plastic bottles, lab funnels, TLC developing chambers…))	3.000,00
Preparation	P4	University of Mostar	Bosnia and Herzegovina	9× Spectrophotometer cuvette (optic glass 10mm width,100-OS, 360-2500NM)	450,00
Preparation	P4	University of Mostar	Bosnia and Herzegovina	9 × Spectrophotometer cuvette (quartz glass,100QS)	810,00
Preparation	P4	University of Mostar	Bosnia and Herzegovina	Spectrophotometer cuvettes (disposable UV, package/100)	30,00
Preparation	P4	University of Mostar	Bosnia and Herzegovina	10 × Condenser (Leibig's) (PP KONEK.40CM, NS29/32)	200,00
Preparation	P4	University of Mostar	Bosnia and Herzegovina	5 × TLC plates (3x SIL G-25/UV254,20X20 CM, P/25; 1 x Alugram Cellulose plates 20X20 CM, P/25 ; 1 x Alugram SIL G-25/UV254 20X20 CM, P/25	720,00
Preparation	P4	University of Mostar	Bosnia and Herzegovina	30 × Lab mortar with pestle (glass 120x90)	1.050,00
Preparation	P4	University of Mostar	Bosnia and Herzegovina	3 × Water Bath, 4 extraction places; Concentric ring cover set at least Ø 110 mm; Stainless steel holding frame included; Drain valve mounted;	3.080,00
Preparation	P4	University of Mostar	Bosnia and Herzegovina	Ultrasonic water bath including internal metal basket and lid.	1.010,00
Preparation	P4	University of Mostar	Bosnia and Herzegovina	1 × Vortex (mixing 0-3000 RPM). Two modes of operation: touch or continuous. Different attachments, e.g.	220,00

				for tubes, centrifuges and microtiter plates	
Preparation	P4	University of Mostar	Bosnia and Herzegovina	1x Lab scale (precise, 1000g/0.01g)	220,00
Preparation	P4	University of Mostar	Bosnia and Herzegovina	2x Lab scale (200g/0,010g)	380,00
Preparation	P4	University of Mostar	Bosnia and Herzegovina	Demineralized water production system (up to 50 L/day with additional set up equipment) and replacement resin for ionic exchange (minimum 60 kg, preferably 120 kg)	790,00
Preparation	P4	University of Mostar	Bosnia and Herzegovina	2 × Suppository Moulds (Hand operated, (24 or 30 x 2g cavities)	2.190,00
Preparation	P4	University of Mostar	Bosnia and Herzegovina	Drying and heating chambers with natural air circulation and mechanical temperature regulation (2 built-in shelves; adjustable exhaust opening; hydromechanical thermostat	950,00
Preparation	P4	University of Mostar	Bosnia and Herzegovina	Capsule filling system, Capacity per cycle: 60-200 capsules; Max output: 2000; Capsules sizes: 00-4 (adapters included)	1.780,00
Preparation	P4	University of Mostar	Bosnia and Herzegovina	Laboratory tablet press (hand operated, for test tablet,	4.190,00
Preparation	P4	University of Mostar	Bosnia and Herzegovina	Centrifuge for micro tubes with angle rottor included,: 24 x 1.5 / 2 ml,max. rcf.: 18,845, max. RPM:14,000 min-1 ; or max capacity: 24 x 1.5 / 2 ml; 6000 rpm / 3.421 RCF; Max weight: approx. 10 kg, Dimensions aprox. (W x D x H): max 260 x 350 x 230 mm.	1.850,00
Preparation	P4	University of Mostar	Bosnia and Herzegovina	Centrifuge, with accesories , minimum 8-place angle steel rotor, accomodating various tube systems as well as 15 ml tubes without adapters; Microprocessor controlled; Max RPM (speed) / RCF: 6000 rpm / 3.421 RCF,	1.650,00

				carriers for smaller volume tubes included: 4 mL, 5 mL, 7 mL	

The PC has oversight of the procurement for the project through the Annual Financial Reports. The actual management for procurement activities falls with the budget holding partner. The partner is responsible for collecting bids, evaluating them, contracting the vendor and contract management. The partners are required to strictly adhere to the Annex I of Partnership Agreement guidelines for purchases. For deviations in purchases partners must obtain approval before proceeding with procurement according to section 4.5.3.

4.7 Scheduling Management Plan

Schedule planning occurred during the proposal stage of the project as referenced and can be found in Project Application.

A working version of the current schedule is maintained within the DMS.

The project schedule will be reviewed by the consortium and individual partners on a continuous three-month basis until the project ends. In case of deviations, project partners must agree to the proposed resources, effort assignments, durations, schedule, and once this is achieved the SC will review and approve the schedule which will become the new baseline.

The Project Coordinator with the support of the SC will be responsible for facilitating the schedule development and adjustments.

4.8 IQPharm reporting

The original project application text assumes that by the end of the project:

- Regular reporting on the progress of all WPs is compulsory
- Regular reporting by each lead partner is compulsory
- Lead partners are to perform a sort of SWOT analysis which gives a clear picture about the progress made and gaps that need to be attended to

These reports will be considered as indicators of project quality, that will help sum up the progress in the given period, and allow QAT to get a clear picture of the realisation of the project. In other words, if there are any discrepancies between the Work Plan and the realised activities, QAT will react timely and prevent further delays.

Based on the results of evaluation, at least every year a public report on quality evaluation will be published, which will cover the quality evaluation at all participating parties.

4.9 IQPharm Report Analysis

The reporting is provided in the application, and confirmed at the kick-off meeting. Periodic reports will be generated by the QAT and will indicate all the problems encountered and suggestions how to overcome them. Reports will include students' feedback and feedback from labour market's obtained during project development and implementation.

The basic tools for quality assessment will be: questionnaires, peer-reviewing by external members, feedback reports and evaluation surveys from training and workshops. Examples of the questionnaire items are: student and academic staff evaluations of KREF and OSCE assessment tools, student and academic staff evaluations of developed KREF and OSCE guidelines, student, academic staff and experiential educators evaluations of developed E-platform, etc.

The evaluations performed by the QAT will be distributed to all participants.

QAT will have 6 meetings: two in Cheti Pescara (M6 and M12), one in Mostar (M18), one in Split (M24), one in Novi Sad (M30) and in Sarajevo (M26). This will lead to six month quality reports evaluating all project activities.

Reports will be presented at project management meetings. Also, an external expert will review the final report. Institutional rules and regulation and guidelines for the KREF, OSCE and E-platform developed in WP2 and which will lead to the modernization of the pharmacy study programme will undergo a deep evaluation and assessment.

QAT will make a report analysis. This analysis is necessary in order to prepare a work plan for the remedy of all problems possibly identified in the reports. The conclusions made by QAT are compulsory for all project partners.

5 IQPharm deliverables

5.1 Document based deliverable

IQPharm takes care that all our deliverables have a common appearance. This step is important for the visual recognition of the project and as an important help in final reporting to both the Project Coordinator and to EACEA.

Therefore, all the partners are supposed to follow these templates for all document-based deliverables: **Word document template, Power point presentation template, Attendance sheet template, Participants feedback form, Event report template, Risk monitoring sheet, News template.**

5.2 Publicity control

The University of Tuzla (UNTZ) is responsible for the design of the promotional material. The draft version will be sent to all partners for comments and suggestions, before printing, publishing and distribution. The materials will be disseminated by all the partners at appropriate events in order to reach the project's target group.

All the publications and events produced by the partners have to have Erasmus+ logo followed by the sentence: "*Funded by Erasmus+ Programme of the European Union.*" This is to be placed on the cover or the first page.

Every product made through this project has to have the following disclaimer on the inner pages:

The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

5.3 IQPharm events

The organizers of all the project events (working meetings, structured study visit, etc.) should provide a full information package to the participants including the draft agenda, letter of invitation and a note on the logistics (informing about travel arrangements, venue, suggested hotels, etc.) in due time.

The organizers will record the minutes of the meetings, which will be distributed to all the project participants and made accessible via project portal. After each meeting the feedback forms will be distributed among participants for quality management purposes.

Posters and other promotional materials will be set-up during the event in order to increase visibility of the events.

Each event should be documented as appropriate using one or more of the proposed media: news, agenda, list of participants with affiliation, list of trainees, report, gallery, presentations (upon the approval of the presenter), and video materials (upon approval of authors).

5.4 IQPharm websites and other electronic tools

The IQPharm project foresees an immediate set up of a dedicated project website for dissemination purposes. This website is to be developed and maintained by SUM, while all the partners are expected to effectively communicate the results of the project keeping the website information up to date.

A dedicated portal based on Google Drive is set up and maintained by project coordinator, UNSA. It can be accessed by all partners depending on their assigned tasks and roles and represents a single point of reference for the project documentation and communication among partners.

All partners are asked to promote IQPharm project on their websites and other electronic tools (such as: Facebook, Twitter and LinkedIn profiles/groups, newsletters, etc.) by providing short description of the project, logo and link to IQPharm website.

5.5 IQPharm logo

This **IQPharm** logo serves to increase the visibility of the project. It has to be used for all the project deliverables and its official project documents.

This logo is designed by the SUM.

5.6 Quality feedback by the target groups

The quality of the project events will be ensured by collecting a variety of information using visits, interviews, questionnaires, consultation, and other forms of activities. These will bring awareness of the satisfaction of beneficiaries and other target groups. A template for feedback is created as a tool of impact assessment of the project activities. This template may be slightly adapted to conform to the specific needs of different events. Its main items shall not be deleted.

Besides, a specific event report template annexed to this document is to be filled in and collected by project partners (organisers) for all IQPharm events (workshops, open days, and trainings). Report will include summary review of statistical data and will help in final reporting.

6 IQPharm Quality Assurance Strategy

6.1 Internal Evaluations

The internal evaluation of the Project comprises two main components:

- Day-to-Day Internal Evaluation of the Project: The partner institutions' teams and the WPs leaders will evaluate the project implementation process on a day-to-day basis and report during the respective meetings.
- Project Quality Board: The QAT will be the main strategic body for quality control and monitoring; it will monitor and approve the quality of the planned project results against established qualitative & quantitative indicators of progress (LFM). A QAT will be set up during the preparation phase comprising contact persons of PCs and EU partners. The QAT will meet six times during the project two times in Cheti Pescara (M6 and M12), ones in Mostar (M18), ones in Split (M24), ones in Novi Sad (M30) and ones in Sarajevo (M26). The work will be mainly undertaken through the online communication tools (via intranet, e-mail, video conference, etc.). The QAT will produce reports and recommendations on the regular basis in correspondence with the SC and WP leaders.
- We plan to carry out the internal monitoring by all the partners, which will include self-evaluation based on the work-plan, budget and cash flow tables, SC meetings, monitoring visits and questionnaires aimed at satisfaction surveys of target groups.

For quality assurance, we will deploy quality control in IQPharm at the following 4 level:

- The work of individual institutions, their teams, the cooperation within the teams, as well as on their cooperation with the WP leader and the partners involved in the activity will reflect in quality of

project deliverables. The partners will be responsible for the quality and timeliness of the deliverable as suggested by the work plan.

- The deliverables will be assessed by a representative of the project consortium and a representative of the QAT, not authoring deliverable. The reviewers will deliver their comments in the document. The authors of the deliverables will adapt their work to be compliant with the reviewer comments or will make their written objectives. Following their response, WP leader will confirm the deliverable.
- Should the reviewers and the authors come in a profound disagreement, the project coordinator should deploy a 3rd level control of the deliverables which will allow taking the necessary corrective actions in order to come up with acceptable deliverables. If necessary the Coordinator may involve the rest of the Consortium.
- The Steering Committee is the highest decision making body of the partnership that takes the final decision for the approval of major deliverables.

6.2 External Quality

The external evaluation of the Project comprises the following components:

- External evaluation of the entire project will be conducted by X independent experts. They will produce mid-term evaluation and final evaluation reports.
- Monitoring of the project will be implemented by National Erasmus+ Offices and EACEA according to their schedule of projects' monitoring process.

6.3 Responsibilities of the Consortium

Within this project, there exist several bodies with different roles and responsibilities regarding the project activities and quality assurance procedures in particular.

Each project activity/task has its leader, being assigned to each IQPharm activity and author and co-authors are reported for each deliverable.

Each project activity/task belongs to a specific work package and each work package has its own leader. In cooperation with the Project Coordinator, QAT controls the quality of activities and deliverables. The Steering Committee is the highest body of the project and is responsible for making final decision. Following these statements:

Task Leader (main author of the deliverable) is responsible for

- Coordination of deliverable(s) development according to the deliverable template
- Distribution of the work assignments among other partners involved in the activity
- Coordination the work assignments of all partners involved in the activity
- Submission of the deliverable to the WP Coordinator, the QAT, and the PC
- Implementation of the suggestions provided by the QAT team
- Regular reporting to WP Coordinator, especially in case of identified issues

- Cooperation with the WP coordinator and other partners in the same WP with the goal to ensure the progress of activity in line with the time schedule.

Other partners involved in the activity/task, the co-authors, are responsible for

- Production of their part in the deliverable according to the instructions
- Provision of their contribution in compliance with the prescribed templates
- Provision of all the complementary information regarding their work (i.e. references, bibliography, methodologies used, contact details of people interviewed etc.) to the activity leader
- Implementation of amendments to their contribution as a result of the amendments requested by the QAT.

WPCoordinator

- Coordinates the Work Package and ensures that all the activities contribute to the WP's objectives and are performed in the time frame as defined by the Work Plan,
- Makes sure that all the partners are smoothly cooperating in order to accomplish the WP's objectives,
- Send timely reminders about submission deadlines and the procedures to be followed and provides input and suggestions to the task leaders,
- Provides comments and suggestions on the deliverables,
- Verifies the satisfactory implementation of the recommendations.

Quality Quality Assurance Team (QAT)

- Is coordinated by the QAT President
- Is responsible for the quality control and monitoring exercise of deliverables
- Receives deliverables from task leaders and provides feedback
- Verifies the satisfactory implementation of the recommendations
- Cooperates with the Project Coordinator on issues related to the level of quality of the project's deliverables.

Project Coordinator

- Cooperates with the QAT and the task leaders on all matters arising relevant to ensuring the quality of the project's deliverables,
- Accepts the deliverables or provides final comments to the task leaders and WP Coordinators,
- Cooperates with the WP Coordinators to ensure that all WPs are progressing in compliance with the Work Plan,
- Informs QAT, WP Coordinators and task leaders of any changes in the implementation of the project that may affect the timing or the content of the relevant deliverables,
- Collect and officially submits all approved deliverables to the Consortium and EACEA.

Steering Committee (SC)

- Is responsible to monitor the project progress, the achievement of milestones and the delivery of planned results as well as monitors the financial aspects and the use of resources.
- Officially approves and finally accepts the deliverables.

6.4 Project Risk Management

It is advised that a regular risk assessment be carried out during the Steering Committee meetings, which shall lead to corrective actions and potential adaptations of the work plan. This assessment will take care of issues that could endanger the project achievements. These include financial risks (overspending and under spending), timing (postponing of activities) and sustainability of the project results. The main aim will be to provide a sound assessment, to anticipate challenges in a systematic way and to minimize the potentially negative overall impact. In case of serious risks, SC should suggest alternatives, workarounds and the proposed corrective actions that will make the risk consequences acceptable for the consortium.

The identification and assessment of new risks is a joint responsibility of all project partners who have to communicate them to the Project Coordinator and the Steering Committee, eventually suggesting also possible interventions and solutions, as soon as they get aware of those risks. In particular, partners may think of preventive actions (avoiding that the risk occurs) and corrective actions (decreasing the severity and impact), specifying also the resources that would be needed.

All the partners should take care of the proper allocation of resources. There are several main risks in this field: the delay of the project implementation; the rushed implementation with low quality; an underspending; and that the relevant expenditures are not timely invoiced or validated.

6.5 Deliverable Preparation and Peer Review Process

All deliverables should be prepared according to the respective Deliverable template of Annex 17; these templates are maintained within the DMS (G-Drive). The template for Word documents provides a deliverable identity sheet and specifies formatting for the reporting elements of a deliverable.

The partners responsible for the deliverable preparation are required to release the first draft of deliverable to other partners using a specified template with specified formats and the identity sheet. The indicative process for preparing deliverables, circulating deliverables among partners and deliverables adoption is shown in table 7.

Table 7 Deliverable Preparation Process

No	Who	Action	To Whom	Recomended Duration
1	Task Leader	1. Prepares Table of Content (ToC) and Circulates	Contributing Partners	Initial activity for deliverable preparation

2	TaskLeader	1. Updates ToC according to comments 2. Proposes Assignments on the ToC and agree with the contributors 3. Circulates the document to those involved	Contributing Partners	Prior to drafting the deliverable content and according to the timeline defined by Task Leader in the step 1
3	Contributing Partners	1. Work on the document 2. Issue intermediate releases	Contributing Partners	According the project timeline
4	Task Leader	Consolidates all input Issues 1st complete draft Circulated for comments	Contributing Partners	Preferable Month Before Submission
5	Task Leader	1. Updates document addressing comments received 2. Circulates final draft for comments	Internal Deliverable Reviewer	3 weeks before submission
6	Internal Deliverable Reviewer	Returns document with comments and MS-Word track changes	Task Leader	2 weeks before submission
7	Task Leader	. Updates document addressing comments received and produces its final release 2. Forwards deliverable to QAT for quality inspection	QAT	10 days before submission
8	QAT	1. Final approval of formal and structural element (if not approved it returns immediately back to the DL for revision)	PC, SC	1 day before submission to SC, PC
9	SC, PC	1. Submits Deliverable to the European Commission . Places the submitted PFD version on the DMS under the respective WP folder	European Commission	1 week before submission

6.6 Partners' technical and financial reporting

The main guidelines for the reporting are laid out in partnership agreement and management deliverable. WP5 is responsible for the procedure to go in a timely manner and that budget is spent according to what planned.

The Steering Committee and Coordinator will check these supporting documents by taking into consideration the following criteria: conformity of the expenditures with the budget; eligibility of the expenditures; correctness and completeness of all supporting documents and certified copies of invoices;

correctness of the calculations and applied exchange rates; financial biannual reports must be signed in original by the appointed contact person of partner institution.

In case that information are not complete or justified, the Steering Committee will help and make recommendations on how this situation can be rectified.

The Report approved in this way is the basis for the transfer of next instalment to the partner institution.

6.7 Partners' staff cost reporting

For the purpose of any financial evaluation and/or audit, beneficiaries will have to retain with the project accounts the following supporting documents:

1. The existence of a formal contractual relationship between the employee and the employer. Furthermore, for non-permanent staff and/or not officially registered under a beneficiary institution, the latter must be able to demonstrate that the conditions defined in the Grant Agreement and Erasmus+ Programme Guide Version 1 (2020): 05-11-2019 have been fulfilled.
2. A duly filled-in Joint Declaration (Annex 13) for each person employed by the project. The declaration must be signed by the person performing the activity then countersigned and stamped by the person responsible (e.g. rector, dean) in the institution that employed this person. **For staff performing different categories of tasks a separate declaration must be signed for each type of activity.**
3. Time-sheets (Annex 14) have to be attached to each Joint Declaration. They must be signed by the person concerned and countersigned by the person responsible in the institution that employed this person. They must indicate the following:

- the project reference
- the name of the person performing the tasks, his/her position and the staff category
- the institution and the country where the person is employed
- the number of days worked for the corresponding month and year
- the description of the tasks performed, the outputs produced and the related work package.

Any material evidence allowing to verify that the declared workloads correspond to actual activities/outputs (e.g. attendance lists for lectures given, tangible outputs/products, salary slips, etc.).

6.8 Partners' travel cost and costs of stay reporting

The following supporting documents must be retained with the project accounts:

1. A duly filled-in Individual Travel Report (Annex 15).
2. Supporting documentation will have to be attached to each travel report in order to demonstrate the fact that the travel and the activity actually took place (e.g. travel tickets, boarding passes with points of departure and destination, dates and name of the person travelling, invoices, receipts, proof of attendance in meetings and/or events, agendas, tangible outputs/products, minutes of meetings). It will not be necessary to prove the actual cost of the travel.

6.9 Partners' subcontracting costs reporting

For the purpose of any financial evaluation and/or audit, beneficiaries will have to retain with the project accounts the following supporting documents:

1. Invoices, subcontracts and bank statements.

6.10 Partners' Equipment costs reporting

For the purpose of any financial evaluation and/or audit, beneficiaries will have to retain with the project accounts the following supporting documents:

1. Invoice(s) and bank statement(s) for all purchased equipment (please note that order forms, pro-forma invoices, quotations or estimates are not considered as proof of expenditure).
2. When the threshold of EUR 25.000 is exceeded and below EUR 134.000, documentation on the tendering procedure and three quotations from different suppliers.
3. When the threshold of EUR 134.000 is exceeded, documentation on the tendering procedure applied according to national legislation.
4. Proof that the equipment is recorded in the inventory of the institution.

In addition, the declared costs must be identifiable and verifiable, in particular being recorded in the accounting system of the beneficiary. Furthermore, the equipment must be properly registered in the inventory of the institution concerned.

6.11 Events organization and reporting

For the purpose of any financial evaluation and/or audit, beneficiaries that organize the event will have to retain with the project accounts the following supporting documents:

1. Agenda (Annex 12)
2. Attendance/Participant list (Annex 3)
3. Event Report (Annex 5)
4. Minutes of meetings (Annex 11)

7 ANNEXES

Different supporting documents have been elaborated for the overall enhancement of the project quality assurance plan:

Annex 1: Word document template

Annex 2: Checklist for review of deliverable

Annex 3: Attendance/Participant list

Annex 4: Meeting evaluation form

Annex 5: Event report

Annex 6: Participant feedback form

Annex 7: Risks monitoring sheet

Annex 8: Checklist of milestones

Annex 9: News template

Annex 10: Self-assessment report

Annex 11: Minutes of meetings

Annex 12: Agenda

Annex 13: Joint Declaration

Annex 14: Time-sheets

Annex 15: Individual Travel Report

Annex 16: PowerPoint presentations template

Annex 17: Deliverable template