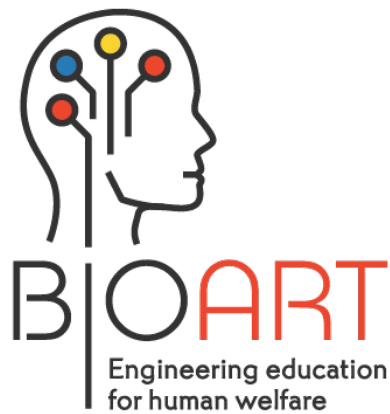


WP3 QUALITY PLAN



586114-EPP-1-2017-1-ES-EPPKA2-CBHE-JP Innovative Multidisciplinary Curriculum in Artificial Implants for Bio-Engineering BSc/MSc Degrees

This document has been accepted and approved by the Steering Committee of the BIOART Project, on 04.10.2018, at the Project Management Meeting, Zaporizhih, Ukraine



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

1. INTRODUCTION

1.1 DOCUMENT DETAILS

The intention of this Project Quality Plan is to provide that all activities necessary for achievement of set goals are realised at high quality level, taking in consideration operational, administrative and accounting aspects of their realisation. Accordingly, the document is structured in such a way to cover and analyse all relevant aspects of quality control process. It is consisted of seven sections, as following:

1. Introduction – gives a preview of the BIOART project with its main and specific objectives and steps towards their achievement. It explains the main idea behind this document and objectives it should meet.
2. Quality standards – defines the policy that is to be followed by Project Partners in order to ensure the quality of achieved outputs and results, as well as standards to apply to deliverables and processes.
3. Project management – defines the project's organisational structures and their roles and responsibilities, decision-making procedures and communication tools and resources to be used for promoting the collaboration among Project Partners. It also gives a detailed preview of reporting procedures for realised activities and incurred expenditure, necessary for preparation and validation of project's deliverables.
4. Project document management – offers the set of document templates to be used for project reporting and monitoring, such as meeting minutes, staff timesheets; documents for financial reporting, organisation of events, travel reports etc.
5. Quality Assurance – introduces the measures and steps that provide that project quality is met and quality expectations are achieved. It also sets the procedure to be applied in case of unsatisfactory project performance.

1.2 PURPOSE OF THE PROJECT QUALITY PLAN

1.2.1 PURPOSE

As an integral part of management planning, the Project Quality Plan should provide the solid ground for successful, timely and quality implementation of the project activities. It forms a common standard to be applied and followed throughout the entire project life. For that purpose, it defines the set of procedures to be followed in order to secure that:

- The Partnership and Grant Agreement requirements and conditions have been fully applied and followed by all partners,
- Rules and procedures of the Erasmus+ regulations are taken into account in operational, administrative and financial management;
- All rights and obligations defined in the Partnership Agreements are fulfilled;
- All project activities are realised in accordance with the plan outlined in the **Project Application Form (AF)**.

1.2.2 PROCEDURE DESCRIPTION

Ensuring compliance with all relevant rules and provisions is very complex and comprehensive task. It requires identification of all quality requirements as well as detailed and concise definition of adequate measures necessary to meet these requirements. Having this in mind, the Project Quality Plan will:

- Define the quality expectations and goals;
- Assign roles and responsibilities to management structures and define their participation in the quality control process;
- Define project policy and standards, and define compliance criteria;
- Identify a set of procedures and metrics to be used to determine performance quality levels.

Once approved by the projects Consortium, all Project Partners, responsible for preparing and producing deliverables, will use the Quality Assurance Plan in daily and overall project management and quality control.

1.3 . QUALITY EXPECTATIONS FOR THIS PROJECT

One of the main tasks of this Plan is to clearly define the quality expectations that are to be met within the scope of the project. These expectations are defined **at all levels** and in such a way to serve as orientation points that will channel the activities towards the successful realisation of planned outcomes and results.

1.3.1 QUALITY OF PROJECT IMPLEMENTATION

The beginning of the implementation of project activities is considered to be the starting date as defined in the approved Application Form (AF). The responsibilities of partners for the realisation of these activities, is divided among them in accordance with their roles in the project. All activities are clearly planned and organised, so that management structure can be effective from the early beginning. As soon as the project starts, a project's decision-making body (Steering Committee) is established. Such Steering Committee is responsible for monitoring the implementation of the project overseeing the strategic planning, coordination, monitoring, evaluation and achievement of outputs/results.

1.3.1.1 Partnership responsibilities and decision-making structure

The Coordinator has the following responsibilities:

- Defining its relations with the Project Partners in an agreement (Partnership Agreement) which includes, inter alia, provisions guaranteeing the sound financial management of the funds allocated to the project, arrangements for recovering amounts unduly paid;
- Ensuring that the project activities and entire project is implemented according to the programme documents and the pertinent EU regulations;
- Ensuring that the expenditure presented by the Beneficiaries participating in the project has been paid for the purpose of implementing the project and corresponds to the activities agreed between the Beneficiaries participating in the project;

In particular, in order to ensure the implementation of the entire project, the Coordinator also has responsibility to:

- Set up an efficient and reliable system for the project administrative and financial management and co-ordination
- Continuously monitor project progress;

- Produce an Interim Report on the entire project and a Final Report at the end of the project;
- Inform the EACEA in right time if any change occurs and submit all necessary requests for modifications;

On the other hand, every **Project Partner (Beneficiary)**, including the **Coordinator (Lead Beneficiary)** as well, has to:

- Collaborate with all Project Partners which will guarantee the successful implementation of the project and its activities;
- Carry out its own share of the work as described and defined in the Application Form, to monitor the progress of the part of the project which it is directly responsible for and to make sure that the local project implementation is carried out in accordance with the programme documents and the pertinent EU regulations;
- Agree on and to apply the requirements and obligations as defined in the Partnership Agreement;
- Maintain either a separate accounting system or an adequate accounting code for all transactions relating to the project according to national legislation;
- Participate in Internal Project Evaluations
- Keep available all its documents related to the project for at least a period of 5 years (see Grant Agreement)

1.3.1.2 Project Goal

The main goal of the BIOART project is to create collaborative platform to support capacity building in Israel and Ukraine and knowledge transfer, through:

- Developing bioengineering curricula for the involved partner countries
- Developing recommendation guidelines for the installation of BIONIC labs in the partner countries
- Implementing an interactive online platform to facilitate e-learning and multiply the exchanges among consortium members;
- Giving visibility to excellence in the field of bio-engineering;
- Capitalising the experience and the results gained to give continuity to the collaborative platform.

For efficient achievement of planned goals, the BIOART project has defined a detailed plan of implementation and project management. This plan is presented in the **Application Form (AF)** and is one of the main tools to monitor and evaluate the project activities' progress:

WP1 Preparation

WP2 Development

WP3 Quality Plan

WP4 Dissemination & Exploitation

WP5 Management

Both - the work packages and tasks within each of them - have to be completed as planned and before the deadline provided in this plan.

1.3.2 QUALITY OF PROJECT DELIVERABLES

The goals set by BIOART project leads to a variety of the project deliverables. They can be generally categorised as documents and reports (Quality Plan, Evaluations, Communication Plan etc.), events (coordination/management meetings, local/national/international events, trainings, workshops, final conference, visibility actions), produced trainings materials, developed curricula and established BIONIC -labs.

1.3.2.1 Quality of documents and reports

All documents and reports produced within the BIOART project are expected to satisfy the following quality criteria:

- To respond qualitatively to objectives set in the Application Form;
- To be delivered within the time frame set in the Work Plan;
- To be approved by the relevant management structure as defined in this Project Quality Plan
- To satisfy the visual identity requirements, i.e. to be presented in corresponding templates provided in this Project Quality Plan.

1.3.2.2 Quality of meetings, conferences and other events

All events planned within the project need to be professionally organised. The organiser/host institution will be responsible for providing the smooth realisation of the event, which includes all necessary arrangements and coordination, preparation of invitation packages (invitation letters, agendas, etc), details on location, available accommodation and travel arrangements, etc.

The deadline for completing necessary preparation activities depends on the event itself, but it must provide enough time for participants' registration and travel preparations.

Additionally, the Coordinator – in collaboration with the host /hosting institution – will be responsible for provision of all materials required for the event (supporting documents, agendas etc.), as well as for the elaboration of reports/minutes on the held event upon its completion.

Every event planned within the BIOART project must also meet the requirements regarding the structure and the number of target audience.

1.3.2.3 Quality of promotion and dissemination tools

As an excellent promotion tool, the project planned to set up a website in order to attract large number of target groups and the broad general public. The project platform will provide regularly updated information about the project, its progress, contact information, project achievements and results.

Apart from the website, a series of events – such as trainings, workshops, and field visits, will be realised throughout the project lifetime.

1.3.2.4 Quality of developed curricula and implemented BIONIC-labs

Envisaged curricula/syllabi, training materials as well as BIONIC-labs should be adequately

developed and designed to respond to the target end-users in accordance with the set action plan. They need to follow clearly defined methodology, address the foreseen target groups, and meet verifiable indicators within the planned time frame.

1.3.2.5 Quality of Project Management

The project management structure was planned during the preparation of the project proposal and was adopted at the kick-off meeting. The structure is composed in such a manner to ensure efficient and quality project realisation. BIOART management is structured at three levels:

- **Project Steering Committee (SC)** responsible for the achievement of the project objectives,
- **Task Force Committee (TFC)** responsible for the Work Plan management and project daily operations; work package coordination and work package supervision
- **Work Package Leader (WPL)** responsible for the coordination of the task assignees and the activities and tasks delivered within a work package.
- **National Coordinator (NC)** responsible for the proper implementation of project tasks at regional/partner country level.
- **Local Project Management Team (LPMT)** responsible for the proper implementation of project tasks at local level.

The project management structures are expected to be well organised, professionally coordinated and fully committed to the efficient realisation of assigned activities, financial management and reporting.

2. QUALITY STANDARDS

2.1 QUALITY STANDARDS

They define the policy that is to be followed by Project Partners in order to ensure the quality of achieved outputs and results, as well as standards to apply to deliverables and processes.

Policy for quality assurance of project's outputs and results

The assurance of quality is fundamental for all work undertaken by BIOART project and should be implemented by all partners in their work. To that effect, BIOART shall:

- Maintain consistency in work method throughout in accordance with set policies, procedures, regulations and codes of practice and without significant deviation.
- Ensure that all policies, procedures, relevant regulations and codes of practice are implemented and systematically reviewed to reflect BIOART's values.
- Regularly monitor and measure the quality of its work methods, outputs and outcomes with a view to ensuring high quality standards, best value and continuous improvement.

2.1.1 QUALITY ASSURANCE

The focus of quality assurance is on the processes used in the project. Quality assurance ensures that project processes are used effectively to produce quality project outputs and results. It involves following and meeting standards, continuously improving project work, and correcting project defects.

Some of the issues to be in consideration are as follows:

- The project processes subject to quality assurance.
- The quality standards and stakeholder expectations for that process.
- The quality assurance activity – e.g., quality audit or reviews – that will be executed to monitor that project processes are properly followed.
- How often or when the quality assurance activity will be performed.
- The name of the person responsible for carrying out and reporting on the quality assurance activity.

2.1.2 EXPECTED RESULTS AND OUTPUTS

In line with the description provided in the project background and with the general and specific objectives, the following main results and outputs of the BIOART project have been elaborated.

Detailed results and outputs are indicated for each WP, the following are the most significant ones at project level.

Results:

- Development of a collaborative platform characterised by virtual learning and teaching materials, encouraging the knowledge transfer between programme countries and partner countries
- Improvement of existing study programmes and the development of new curricula in the field of bioengineering in the partner countries
- Establishment of BIONIC-labs in partner countries HEIs
- Capacity building and enhancement of the cooperation culture of partners and dissemination of the BIOART contents in the Partner Countries and Europe

Main outputs (see also AF):

- BIOART study programme analysis: national reports on local contexts
- BIOART curricula: syllabi for artificial implants in bioengineering
- BIOART teaching/learning/training material
- BIOART BIONIC labs
- BIOART platform: online platform to support the relationships between the consortium partners
- BIOART trainings and workshops: field visits to support knowledge transfer in the area of bioengineering in HE

The **expected results** are direct and immediate advantages resulting from the BIOART's activities and from the production of the outputs, they are the effects to which the outputs lead to and tell us about the benefit of funding the outputs. Compared to outputs, results imply a qualitative value, even if they should also be measured in concrete units (see Indicators).

The BIOART defines also outputs, which, practically, tell us what has actually been produced with the money given to the project. The project **outputs** are tangible deliverables and visible products of the project directly resulting from the tasks carried out in the project (curriculum development, training material development, BIONIC-labs established, workshops etc.). They are typically measured in concrete units.

The realisation of the defined indicators will be taken into consideration to monitor the project performance.

2.1.3 INDICATORS

The indicator targets set by BIOART in the Application Form under the Logical Framework Matrix (LFM) define its level of ambition, help to monitor progress throughout implementation and allow evaluation whether the objectives have been achieved.

All indicators under BIOART will be expressed in quantity (such as 'the number of') in order to be able to measure results and outputs objectively, but they need to be completed by qualitative aspects.

The definition of the BIOART project indicator system is very important and will be cleared and estimated by the partners, which shall agree in what exactly needs to be achieved by the project since the beginning.

2.1.4 STANDARDS THAT APPLY TO DELIVERABLES AND PROCESSES

During the BIOART project execution, there are a number of project activities and tasks to be delivered. All these deliverables should adhere to certain quality standards as well as specific client requirements.

Therefore, each of these deliverables should be validated and verified before implemented. For that, there should be a quality assurance function which runs from start to the end of the project. As a principle, if the processes and activities that produce the deliverables do not adhere to their own quality standards (process quality standards), then there is a high probability that deliverables not meeting the delivery quality standards.

To address all the quality requirements, standards, and quality assurance mechanisms in our project, this QM-document is developed by the project team. This plan acts as the quality reference framework for the project and all the stakeholders of the project should adhere to the project quality plan.

2.2 APPROACH

As the procedures are put in place and implemented, improvements will be identified and introduced under the control of the Quality Assurance Manager.

The standards and procedures are based on the following principles.

1. Standards and procedures will be agreed-upon in advance for all project activities.
2. The team will be involved in their development or adoption to make sure that the standards are owned by the team.
3. Every effort will be made to ensure that the quality of the standards and procedures is evident and to not impose unnecessary standards or overly elaborate procedures.
4. Once adopted, the standards will be formally documented, easily accessible and easily understandable.
5. We will be flexible in evolving the standard if someone has an improvement.

Based on the objectives, challenges and goals set by BIOART project leads to many project deliverables. They can be summarised as:

- **Documents and reports** (including Work Plan, quality plan, modules and syllabi, national reports, study programme reports, curricula)
- **Events** (kick off meeting, local/national/international events, workshops, trainings etc.)
- **Product/Service** (BIOART collaborative working space, BIONIC-labs)

- **Teaching/Training/Learning Material** (supporting documents for bio (medical) engineering study programmes/courses)

All of the deliverables will be developed based on the standards and procedures defined in the beginning of the Project.

All documents and reports produced within the BIOART project are expected to fulfil standards and quality criteria as follow:

- To be produced based on visual identity requirements, (to be presented in corresponding templates provided in this Project Quality Plan).
- To respond qualitatively to objectives set in the Application Form;
- To be delivered within the time frame set in the Reports
- To be approved by the relevant management structure as defined in this Project Quality Plan

The work package and deliverable evaluation forms should have a uniformed appearance, structure and referencing scheme. It is therefore necessary to use document referencing and template provided in the Annex of this Project Quality Plan.

All events planned within the project need to be organised on the in compliance with their standards and procedures including all necessary arrangements and coordination, preparation of invitation packages (invitation letters, agendas, etc.), details on location, available accommodation and travel arrangements, etc.

Products and services (BIOART collaborative platform) should be adequately developed and designed to respond to the target end-users in accordance with the set action plan. They need to follow clearly defined methodology, address the foreseen target groups, and meet verifiable indicators within the planned time frame.

In additional, the BIOART Project has a website <https://bioart.iucc.ac.il/home-2/> in order to attract large number of target groups and the broad general public. This quality and standard tool, will serve to inform and promote BIOART project deliverables and at the same time the beneficiaries will be able to find regularly updated information about the project, its progress, contact information, project achievements and results.

3. PROJECT MANAGEMENT AND RELATED QUALITY PROCEDURES

The BIOART Quality Plan (QP) documents the necessary information required to effectively manage project quality from project start to end. It clearly articulates the quality strategy and processes for both quality assurance and quality control. Moreover, it defines a project's quality philosophy, strategy, relevant methodologies and standards to be applied to the management of the project processes, monitoring and reporting procedures, quality policies, procedures, criteria for and areas of application, and roles, responsibilities and authorities.

In a nutshell, the purpose of this QP is to describe the project management quality objectives of the BIOART project, which are to enable realisation of the project expected outputs in line with the partners' given quality standards, as well as to set guidelines for analysing, assessing, reporting and improving the project management quality.

The QP is created during the Preparation Phase of the project. Its intended audience is the project management organisational structure, including the Coordinator, Project Steering Committee, Project Task Force Committee and potentially Work Package Leaders and

Project Staff (Task Assignees), if necessary. Namely, this document is intended to any leader or a leading team whose support is needed to carry out the Plan.

This Plan is in line with the following main **quality objectives**:

- To meet the quality standards of the funding agency - the EACEA;
- To establish the operative project schedule and the Work Plan that will assure effective collaboration among the partners, in accordance with the quality standards;
- To implement effective and efficient monitoring and evaluation system;
- To achieve smooth management and organisation transition to long-term final beneficiaries;
- To deliver the project in line with the agreed budget;
- To deliver the project in line with scheduled commitments;
- To identify issues and defects as early as possible in the project lifecycle and to apply appropriate, efficient and cost-effective remediation measures;
- To assure information flow and harmonised implementation of project tasks among Project Partners

3.1 QUALITY MANAGEMENT ORGANISATION, ROLES AND RESPONSIBILITIES

Taking into consideration the project's international character, the project management process will be carried out by three organisational structures:

Project Coordinator (PCO) and the **Steering Committee (SC)**, composed of one representative designed for each Project Partner and responsible for:

- Approval of acts and key project documents, such as the Work Plan, Quality Plan, Communication and Dissemination Strategy;
- Monitoring the overall progress of the project
- Final and binding conflict resolution
- Contribution to ensure motivation and team spirit in the project;
- Observance of formal procedures;
- Ensuring efficiency in relation to the internal communication and decision making process;
- Ensuring uniformity of external messages and communication;
- Ensuring efficacy of the dissemination and mainstreaming actions;
- Ensuring coherence of the planned actions in the Project Work Plan.

Task Force Committee (TFC) is composed of the group of WPLs, the SC President (CO) and a Secretary. The TFC is responsible for:

- Tracking the implementation of the different work packages, solving problems at intermediate level and reporting conflicts to the PSC.

Work Package Leader (WPL) responsible for:

- Conflict resolution on technical level
- Tracking the progress of the work packages, reporting conflicts and delays, and implementing the decisions of the SC.

The **Local Project Management Team (LPMT)** represented by the team of professional staff set in by each Project Partner, and responsible for:

- Work Plan management and project daily operations;
- Monitoring all required tasks
- Resolving occurred issues or problems
- Setting out the team operating rules and procedures
- Performing monitoring and evaluation procedures.

Project Staff/Task Assignees composed by professional staff provided by each partner organisation, responsible for:

- Proper implementation of project activities in the local context, in accordance with the LFM and Work Plan authorised by the Steering Committee and the procedures established by the Task Force Committee.

Role	Quality Responsibility
Coordinator / President of SC	Overseeing quality management and assurance activities in a general coordinative manner, checking and approving project outputs against AF together with SC. Communicating results of quality report to the EACEA
Project Steering Committee (= Quality Assurance Group)	Checking and approving the project outputs; assessing internal evaluation and validation against Work Plan and LFM.
Task Force Committee	Monitoring the implementation of quality management throughout the project and supporting all levels of project management; reviewing formal project deliverables and monitoring day-to-day project activities; coordinating on-going activities and reporting on the performance of each stakeholder; resource scheduling (by the financial managers)
Local Project Management Team	Monitoring and reporting on the proper management and implementation and completion of project assigned activities and tasks within the local contexts
National Coordinator	Monitoring and reporting on the proper management and implementation of project activities within the (partner-) regional contexts
Work Package Leaders	Monitoring the implementation of the QAP within their respective packages. Identifying issues in the implementation of the QAP. If issues cannot be solved at a local level or if they affect several WPs, WP leaders will raise them to the TFC.
Project Staff/Task Assignees	Ensuring the implementation of quality standards to their assigned project activities.
External Evaluator	Providing external evaluation (on the basis of documents, services and products produced throughout project lifetimes, as well as on the

basis of internal evaluation/validation forms received.)

In order to assure quality systematic project management performance, the following set of rules will be followed:



3.2 QUALITY MANAGEMENT AND DECISION – MAKING

Firstly, the entire project management unit understands that decision making and problem solving are continuous processes of evaluating situations or problems, considering alternatives, making choices, and following them up with the necessary actions.

Therefore, the decision-making shall be performed according to the following steps:



Throughout the project the goals and interests of all partners need to be respected and therefore a consensus in decision making between all parties is desirable. Normal decisions are taken at following levels:

- Operational decisions are dealt with by **WP Leaders**
- Everyday management is handled by **Project Staff/Task Assignees**, who report to the relevant WP Leader
- Administrative issues are taken care by the **Project Coordinator**

In case decisions transcend single tasks or single work packages, and in case unanimous decisions cannot be made at a task or work package level, decision procedures move towards a higher level and the SC becomes responsible for organising the decision-making process. Then, decisions will be made by voting, where each member of the SC can cast one vote. A decision will apply when 75% majority is found in favour of it. In case one partner cannot agree with the decisions made by voting in a normal SC voting procedure, a conflict resolution procedure will be started.

3.3 QUALITY MANAGEMENT AND CONFLICT RESOLUTION

Conflict resolution will be addressed hierarchically. Initially, **WPLs** will try to solve internal conflicts in their WPs, meeting with the partners involved. If the conflict cannot be solved, the **WPL** will raise the issue to the **TFC**, which will act as a forum for conflict resolution. If the conflict persists, the **TFC** will raise the issue to the **SC**, which will celebrate an extraordinary meeting to analyse the conflict, take a decision and enforce it.

In case of conflict between partners, the Project Coordinator can raise a conflict action flag.

In this case, the **SC** will evaluate the dispute and will a decision by 75% majority. In case a strong division exists in the consortium and 75% majority cannot be reached, the majority after three votings is set to 50% with 1 vote per member in the SC. Each voting will be separated b a maximum of 5 business days.

If necessary, the **SC** will propose remedial actions to the EACEA. The EACEA will be enabled to monitor the project management through regular reports. The **CO** may seek independent advice as to the content or quality of a deliverable, if he/she considers such action necessary or desirable for the purpose of resolving any disputes among the Project Partners.

3.4 QUALITY MANAGEMENT AND COMMUNICATION BETWEEN THE PROJECT PARTNERS

Having in mind the complexity of the organisational structure, and the necessity to keep communication between partners efficient and productive, which in turn will contribute to the quality of the deliverables, managing partners have worked out a periodic internal meeting and reporting procedure. Also, internal communication was organised in a way to optimise information flow between Project Partners. That will ensure that all project activities are handled in an efficient and time-effective manner. An e-mailing list for internal communication has been established for communication purposes during the project lifetime.

Hence, as highlighted in the Project's AF (Work Plan), the following communication methods and instruments will be used in order to ensure information flow and in accordance adequate and efficient decision making:

- Communications and information flow shall be exercised through regular management meetings and mailing lists;
- Every 6 months project monitoring through Project Progress Evaluations shall be performed by each Beneficiary, so the entire management could have an insight into the process of project implementation;
- Continuous financial monitoring shall be implemented in order to keep track of and control the declared expenditures and relevant related documents.

3.4.1 INTERNAL COMMUNICATION

As stated in the AF, the management has put up a mailing list solely accessible to Project Partners for efficient communication between the geographically dispersed team members. Most of communication will happen through electronic means (e-mail, Skype meetings and on-line collaborative tools (such as Dropbox or Google Drive), and will thereby be recorded and accessible to all Project Partners. The file storage provides all the templates that support standardisation of communication and data to be reported. In this section, Project Partners can find all the mandatory templates required in specific case and also the suggested templates that can be used.

Besides the on-line collaborative tools, a project platform will established that serves as a multi-user system, and is developed specially for the needs of the project. It is a web-based tool allowing its users to access to it from wherever they are, with an Internet connection and a browser.

The first meeting of all beneficiaries on the project has been known as **kick-off meeting**. The kick-off meeting is organised and arranged within the first starting months to ensure that all the partners share the same project vision and are ready to start the implementation of the project without delay.

In addition to the kick-off meeting, the management partners shall meet, within the Steering

Committee, at least once in every six months to discuss the progress of the project and work out any difficulties that may arise in the course of the project.

3.4.2 REPORTING

In order to successfully implement a project and to allow for correct reporting:

- A separate archive filled in by each Project Partner with all original documents related to project's (financial and administrative) implementation;
- All partners shall keep the documents linked to the project until 5 years after the project ended; (see Partnership and Grant Agreement)
- Project specific cost-accounting analytical code/s in order to clearly trace project costs, activity and payment date/reporting period in the Beneficiary's accounting system;
- Copy of relevant documents sent to the Coordinator/Lead Beneficiary.

An Interim Project report will be prepared by the Coordinator 18 months after project start, preferably to be discussed at the management meetings. Otherwise, reports may be submitted and discussed via mailing lists by writing procedure.

Project completion will be summed up by the final project report, which will serve as the official document against which project results will be assessed in comparison to the project objectives and expected deliverables.

3.5 VALIDATION OF PROJECT DELIVERABLES

In the BIOART project, two types of deliverables can be distinguished:

- Documents
- Technological output
- Services and products

Document deliverable refers to any type of original textual report that is produced in the context of the BIOART project and that related to deliverables defined in the project description. For example, "Dissemination Plan" constitutes a document deliverable.

Technological output refers to virtual platform/services developed and provided to target beneficiaries in the context of the BIOART project. For example, all integral virtual resources of the BIOART collaborative platform.

Since they are quite different in nature, a different validation procedure will be implemented for each of these deliverable types.

Each **document deliverable produced** by the **project staff (task assignee)**, i.e. the person or a group assigned to produce the deliverable will be submitted to the **person responsible for supervising the work package (WPL)**; the **WPL will self validate** the document deliverable **based on the quality indicator as defined in the Quality Evaluation Plan (QEP) and AF**; the **WPL will then** communicate the validation results to **SC** and the involved **LPMT**; **SC** and **CO** approve the evaluation documents produced and define the publication level.

Product/service as well as technological deliverables will be validated based on the document drafted to describe the features of the technological output. Based on that document, acceptance criteria will be defined and will serve as a point of reference for evaluating the technological output deliverables. Technology developer will be the first to

assess whether the deliverable meets the acceptance criteria. Consequently, other Project Partners will get access to the technology checking it against the acceptance criteria again. After the testing phase and remediation of all issues, the supervisor will notify the **CO and SC** that the technology is ready to be delivered. (See **ANNEX Communication Tool Evaluation form**)

If applicable (e.g. in case of the BIONIC-labs) photos/screenshots shall be made in order to proof the implementation of the product/service. Written documentation of the implementation is evaluated and approved in the same way as document deliverables with the addition that (external) evaluators get access to the deliverable.

In the context of the BIOART project, quality management is fairly dependent on the efficient methods and tools of internal communication, allowing feedbacks among geographically dispersed Project Partners, timely effective and quality decision making, internal process of checks and balances, as well as quality validation of project deliverables. Consequently, minimal corrective measures will be necessary, implementation will follow the initial working program, and most importantly, project general and specific objectives will be realised.

4. PROJECT DOCUMENT MANAGEMENT

Project document management – offers the set of document templates to be used for project reporting and monitoring, such as working meetings proceedings and registration forms, personnel timesheet; check lists for financial reporting, organisation of public events, etc.

All documents and reports produced within the BIOART project are expected to satisfy the visual identity requirements, i.e. to be presented in corresponding templates provided in this Project Quality Plan.

4.1 DOCUMENT TEMPLATES

Deliverable documents to the EACEA, as well as all other reports, minutes, or presentations will be based on the document templates applicable for all documents to be created within the scope of this Project. The templates for format are mandatory. Several different types of documents are in use with the following respective purposes (e.g. time sheet, travel report).

BIOART Project Partners (including the Coordinator) will use all the mandatory templates (provided by the EACEA) required in specific case and the suggested templates that can be used.

For the reporting process at project level, BIOART Project Partners will use the templates provided by the Coordinator, where compulsory templates are provided by the EACEA.

BIOART Project Partners will use different templates for reporting, monitoring as well as for organising and respecting the procedures for events (conferences, workshops, trainings, etc.) which will be at their disposal in the project common repository.

The following evaluation forms will be made available:

- Project Progress Evaluation Form
- Meeting Evaluation Form
- Training Evaluation Form
- Communication Tools Evaluation Form

The templates of the Project Progress Evaluation form relates to the work performed and results achieved by the Project Partners in the considered period of reporting, highlighting the state of project implementation, the description of activities carried out, and the outputs and results achieved according to the project Work Plan.

Project Partners will also use the Meeting and Training Evaluation Forms as well as Communication Tools Evaluation Forms for internal evaluation purposes, as well as students taking the particular bioengineering courses will be asked to use the Student Evaluation Forms.

4.2 STORAGE OF PROJECT DOCUMENTS AND ACCOUNTING RECORDS

All accounting and supporting documents (e.g. Project Application Form, public procurement documentation, important communication between the Project Partners and with the Programme bodies as well as documents required to ensure an adequate audit trail, documents related to expenditures as e.g. original invoices and controls and audits) must be available and accessible until 5 years after the Programme closure, unless stricter national rules/state aid regulation do not state a later date.

Official documents related directly to the communication with the EACEA shall be archived by the Coordinator, whilst the reporting and supporting documents related to the Beneficiaries must be kept at the Beneficiaries' premises for an equal period of time. The documents can be kept either in the form of original copies or in a version in conformity with the original, as commonly accepted data carriers.

The procedure for the certification of the conformity of these documents held on data carriers with the original documents must be in line with the provisions set by the national authorities and shall ensure that the versions held comply with the national legal requirements and can be relied on for audit and control purposes. In case of retaining the documents electronically, internationally accepted security standards must be met.

5. QUALITY ASSURANCE

Quality assurance identifies the specific measures to be carried out in order to ensure that the project and its deliverables conform to the project quality requirements. Those responsible for quality of realised activities are identified and their role has been described in the corresponding sections of this document. The quality assurance plan presented here includes explanation showing how quality requirements for activities are to be met.

5.1 INTERNAL PROJECT EVALUATION

The **Coordinator** is responsible to ensure the successful implementation of the project and its activities by monitoring and reporting on the project's progress. In order to ensure efficient administrative and financial management, the CO will establish a procedure for monitoring the achievements of milestones and outputs as well as the project spending (see evaluation forms for internal evaluation process in ANNEX as well as forms and checklists provided in the Erasmus Beneficiaries' Space).

The **Coordinator** and Lead Beneficiary are supported by the **Steering Committee**. It is responsible for monitoring the project in order to achieve the targets/objectives set in the project application. If necessary, the Steering Committee handles with the changes of the

project implementation (see Grant Agreement / The ERASMUS+ Programme Guide and the Guidelines for the Use of the Grant).

The Steering Committee is composed of representatives of all Project Partners.

The main instruments for the project monitoring are the **Project Progress Evaluations**. Based on these evaluations the Coordinator and the Steering Committee monitor the project implementation in order to help the project to achieve the best possible output. At the same time, they are a tool for the Coordinator to follow the activities occurred among the Project Partners.

The project monitoring also includes the tracking of the project's expenditures.

5.1.1. REVIEW PROCEDURE AND SELF ASSESSMENT

The quality of the work will be reviewed at the Project **Steering Committee** (SC) meetings. All deliverables will be discussed during the project meetings and will be screened by the **Work Package Leader** (WPL) **Project Coordinator** (CO) prior to their releases to the EACEA to ensure they meet the objectives of the project as a whole. The quality of the deliverables will be internally assessed by the following internal approval procedure after revision within the consortium.

Quality review of deliverables within the BIOART project will therefore be realised at different levels:

Deliverable author level: The first level of quality control for the development of deliverable will be responsibility of its author. (The **Local Partner Management Teams** will ensure that the relevant deliverable is produced in accordance with the set goals and defined in the AF.)

Work Package Leader level: The deliverable draft is to be distributed to the Work Package Leader and consequently to the **CO** and the **SC**.

After revision of the deliverable during self-assessment or during the project meeting, the **SC** and **CO** can call for improvements or changes in case of the work, reported in the deliverables, does not achieve the technical objectives stated for a given task in the Work Plan. In this case, the **WPL** and the author (task assignee) will discuss the technical work in order to identify the unsatisfactory parts and to take corrective action. The author (task assignee) will propose the corrective action to the **SC** if a significant Work Plan modification is required. The changes will be approved by the **SC** and then implemented by the original author (task assignee).

The final rating of the deliverable draft can be marked as:

- **Fully accepted** - In case the deliverable is fully accepted by all reviewers, it can be considered the final version, and/or sent to the respective level of revision (if necessary).
- **Revisions required** - The deliverable author includes or disregard those comments and finalises the deliverable.
- **Rejected** –In case the quality of the deliverable is not satisfactory and / or it fails to conform to the quality criteria the reviewer reports to the **SC**.

In case profound disagreements between reviewer and author, the deliverable will have to go through the BIOART level of control.

The **Steering Committee level** is the third level of deliverables quality control. The **SC** is responsible for approval of products, services and key documents of the project, such as Project Reports, Monitoring and Evaluations, Communication and Dissemination strategy,

etc. Besides, it will be responsible to resolve any disagreement that may appear at the lower control levels. The approval of all deliverables must respect the time schedule defined in the Project Work Plan (see AF)

5.2 EXTERNAL PROJECT EVALUATION

- **External Project Evaluator** The EP will be appointed after the QAP has been established and its task will be to certify that the internal QAP is correctly implemented. The EP will participate in two coordination meetings, and will produce one interim report and one final report, regarding the overall process and the internal self-evaluation that may include recommending changes in the QAP.
- **NEO Monitoring:** NEOs in the partner countries (Israel and Ukraine) will monitor the progress of the project, holding regular visits to certify its satisfactory implementation.
- **External Approved Auditor (EAU):** The SC will appoint an EAU. The EAU will produce one external audit work, verifying that all costs are properly declared in the Final Financial Report.

5.3 PROJECT CHANGES

The project should correspond as much as it is possible to the Application Form (AF). However, the planned project activities are based on assumptions made at the time of the AF submission and conditions may be change during the time. During implementation, sometimes it is allowed to make some project changes in order to adapt to real situation that the Project Partners have to deal with. Those changes can be:

- **Changes**, which DO NOT have a relevant impact on the main results, outputs and objectives of the project; they require a detailed written request to the Project Coordinator justifying the changes, and the CO may approve it or not.
- **Substantial changes**, which HAVE a relevant impact on the main results, outputs and objectives of the project; they require a detailed written request produced by the Project Coordinator, sent to the EACEA - justifying the changes as well.

Specific obligations about project changes are established in the Grant Agreement and shall be respected as well.

For the submission of any project change, the **CO**, after having collected the requirements of changes by each Project Partner, files a written request (“amendment”) signed by the legal representative to the EACEA.

6. PROJECT EVALUATION PLAN

Element	Quality indicators	Evaluation level	Items to be evaluated
Comparative analysis of relevant curricula in programme and partner countries	Identification of existing (current) bio engineering curricula Interpretation of the current and future needs	Internal	Number of national reports produced by European partners Comparative reports compiled for UA and IL
Regional labour market requirements analysis in UA/IL	Identification of labour market needs	Internal	Labour market reviews for UA and IL

Definition of cross-regional knowledge triangle network	Setting priorities in cross-regional collaboration and defining knowledge transfer approach	Internal	Strategic plan for cross-regional knowledge transfer
Modules/Labs/Curriculum development	Prepared modules and syllabi according to EU partner expertise Organisation of teacher trainings at EU partner institutions Organisation of local teacher training Organisation of intern. student contest? Developed multidisciplinary courses in artificial implants Prepared teaching material Established novel BIONIC laboratories	Internal	Published teaching/learning/training material Training Evaluation Form Minutes of coordination meetings Student Evaluation Form Contest report? Pilot teaching report
Quality control	Setting the QAG (=SC) and defining the QAP Quality monitoring and assessment Satisfaction survey (=evaluations) Developed and approved quality plan Evaluation by Quality Assurance Group External project evaluation (performed by independent expert)	Internal/External	Evaluation forms Quality plan Quality control and management reports Internal evaluation/quality assurance reports External evaluation/quality assurance reports and recommendations
Dissemination and exploitation	Development & dissemination of project materials, including a Springer Book Development of Project Website Dissemination events organised, including the final conference	Internal / External	Project Progress Form Project Communication Tools Form Published Springer Book Project marketing package published Number of publications in the press and social media Number of visitors to the project events Number of visitors on the project website
Project management	Project management plan developed Work Plan with clear division of tasks and responsibilities produced Approved decision-making procedures Approved methods and tools of communication between partners Financial management Project events Project management reports	Internal / External	Project Progress Evaluation Form Meeting Evaluation Form Information collected from Project Partners SC mission & working principles produced Updated Work Plan
Coordination and	Quality of information and	Internal / External	Meeting Evaluation Form

<p>project meetings</p>	<p>communication prior to and at the event</p> <p>Participation and contribution at the event</p> <p>Respecting the agenda & meeting the goals of the meeting</p> <p>Working environment</p> <p>Participants have a clear plan of upcoming activities</p>		<p>Minutes of coordinating meetings</p>
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