D7.4: Quality assurance – Risk Management Plan
## Document details

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<td>New Educational Model Enabling Social Innovation Skills development</td>
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<td>D7.4</td>
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<td>Friedrich-Alexander-University Erlangen-Nürnberg (FAU)</td>
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Document History

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<td>1st draft</td>
<td>Aristidis Protopsaltis FAU-ILI</td>
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<td>0.4</td>
<td>17/01/18</td>
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<td>Aristidis Protopsaltis FAU-ILI</td>
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## Acronyms, abbreviations and definitions

<table>
<thead>
<tr>
<th>Acronyms</th>
<th>Definition</th>
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<tbody>
<tr>
<td>PMB</td>
<td>Project Management Board</td>
</tr>
<tr>
<td>PC</td>
<td>Project Coordinator</td>
</tr>
<tr>
<td>PSB</td>
<td>Project Steering Board</td>
</tr>
<tr>
<td>WPL</td>
<td>Work Package Leaders</td>
</tr>
<tr>
<td>STM</td>
<td>Scientific and Technical Manager</td>
</tr>
<tr>
<td>RQM</td>
<td>Risk and Quality Manager</td>
</tr>
<tr>
<td>IM</td>
<td>Innovation Manager</td>
</tr>
<tr>
<td>DoA</td>
<td>Description of Action</td>
</tr>
<tr>
<td>PO</td>
<td>Project Officer</td>
</tr>
<tr>
<td>EIPRM</td>
<td>Exploitation and IPR Manager</td>
</tr>
<tr>
<td>AB</td>
<td>Advisory Board</td>
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Table of contents

1. Executive Summary ................................................................................................. 6
2. Introduction .................................................................................................................. 7
3. Document Structure .................................................................................................... 7
4. Project management approach ................................................................................... 7
   4.1. Management structure and procedure ................................................................. 7
   4.1.1. Management structure and decision making .................................................... 7
   4.1.2. Roles and Responsibilities .............................................................................. 8
   4.1.3. Structures for decision making, resolving conflicts & controlling changes ........... 11
   4.1.4. Project quality management ............................................................................ 12
   4.1.5. Management of communication ..................................................................... 12
   4.1.6. Risks management .......................................................................................... 13
5. Quality Management .................................................................................................... 13
   5.1. Quality management roles .................................................................................. 13
   5.2. Performance management ................................................................................... 14
   5.3. Management of Communication ....................................................................... 17
   5.3.1. Communication Roles and Responsibilities ................................................... 17
   5.3.2. Communication tools ..................................................................................... 17
   5.4. Documents /deliverables management ............................................................... 19
   5.4.1. Deliverables development process .................................................................. 19
6. Risk Management ......................................................................................................... 20
   6.1. Risk management approach .............................................................................. 20
   6.2. Risk management Roles and Responsibilities .................................................... 20
   6.3. Risk management process ................................................................................... 21
1. Executive Summary

The purpose of the Quality Assurance and Risk Management Plan is to outline the main aspects related to the Quality Management of the project summarising the organisational structure, the operating procedures and management tools and the risk management process. It provides a single point of reference on the procedures that will be followed during the course of the NEMESIS project in order to ensure the highest quality of the project’s deliverables and outcomes.

It presents how the project will perform its day-to-day activities from a quality perspective and pays particular attention at defining the roles of partners at coordination, implementation and decision making level. Additionally, it provides an overview of all the necessary quality assurance procedures with emphasis on (i) the project’s performance management (indicators to measure the project’s progress; continuous monitoring and reporting) (ii) communication management (coordination and interaction among partners and the EC), (iii) documents and deliverables management (development and review of deliverables). Finally, it defines a plan for identifying and managing potential risks that may influence the project progress and outcomes.
2. Introduction

The aim of this document is to describe how quality assurance and risk management procedures will be structured and performed in the NEMESIS project. This deliverable defines a consistent plan and set of procedures to guarantee that quality aspects of the project are met and regularly monitored. In addition, it outlines the procedures for identifying and handling risks and causes of project deviations.

The quality assurance and risk management procedures presented in this document are applicable to all the activities of the project. Hence, compliance to these procedures is mandatory for all partners.

3. Document Structure

Section 4 begins with a presentation of the project management approach and structure which is the foundation of the quality assurance procedures defined in this document. It is followed by section 5 which provides a description of the three key elements of the quality assurance procedures: (i) performance management, (ii) communication management, (iii) documents management. Section 6 introduces the risk management approach adopted by the project to identify and control all the potential project risks that may influence the project results. In all sections of this document emphasis is given on the role and responsibilities of partners.

4. Project management approach

4.1. Management structure and procedure

The project requires an efficient and effective operation of the consortium to ensure that all activities are achieved within time, and within budget, and any other resource constraints. Therefore, a well-defined management structure has been put into place, according to the guidelines of the Project Management Institute (PMI) and the PMI Body of Knowledge (PMIBOK).

4.1.1. Management structure and decision making

Given the complex nature of this project, where 13 organisations with different cultures and approaches join forces and know-how to achieve common goals, a functional organisational structure that ensures efficient, result-driven management has been put in place and described in the DoA and it can been seen in Figure 1. The project coordinator, FAU, has a long experience and deep knowledge in coordinating educational and ICT projects and can ensure an efficient project management. FAU as the coordinator of the project will have responsibility for the implementation of this project’s consortium organisational structure that includes the following composition:
The organisational structure of the NEMESIS project consists of:

- The Project Coordinator (PC)
- The Project Management Board (PMB)
- Project Steering Board (PSB)
- Scientific and Technical Manager (STM)
- Ethics Manager (EM)
- Risk and Quality Manager (RQM)
- Innovation Manager (IM)
- Exploitation and IPR Manager (EIPRM)
- Communications Manager (CM)
- Advisory Board (AB)

### 4.1.2. Roles and Responsibilities

The Project Management Board (PMB) is the central decision body in the project, in which each partner has one seat, and it is chaired by the Project Coordinator (PC). Its main task is project governance. It will have the overall responsibility of all financial, legal and administrative issues of the project. It will monitor and assess the actual progress and direction of the project and accomplishment of the project objectives. It will also be responsible for the resources used and the costs incurred. Recommendations for amendments to the work plan, major technical, financial and resource allocation decisions along with periodic and final reports will be submitted to the PMB for ratification, including without limitation, decisions regarding:

- (a) wider communication direction of the project,
- (b) amendments to the description of work and effort allocation,
- (c) specific contractual issues with the EC,
- (d) financial planning and control and other administrative
arrangements (e.g.: inclusion of a new Partner, substitution or exclusion of an existing Partner, resolution of conflicts). The main role encompassed in the PMB is:

The PC will chair the PMB and will be responsible for the overall management, communication, and coordination of the entire project. The mandate of the PC is to represent the project and the consortium, report to the EC, monitor overall project planning and performance, administer project resources and promote project visibility. The PC is chairing the PMB and Project Steering Board meetings and is responsible for the project formal communication with the Commission and other stakeholders. This role will be assigned to Dr Aristidis Protopsaltis (FAU). The Project Coordinator team will also include: (a) A Deputy Project Coordinator Manager, from FAU, Ms Sonia Hetzner (b) an experienced Financial Officer from FAU, engaged to the financial and administrative project management and supervision, Dr Roland Klein who is the head of administration and financial issues at FAU-ILI, assisted by Ms Angela Köchel who is managing the financial aspects of all EC projects at ILL and (c) a Secretariat Ms Katrin Christl.

The Project Steering Board (PSB) is a high-level management body, chaired by the PC and composed of all the WP leaders (apart from WP3 and WP7 since it is FAU chairing the PSB). Its mission is to assess overall project progress and to propose corrections to PMB, if needed, according to the project strategy. It shall be responsible for planning, executing and controlling the project, as regards issues of both scientific and technical nature. It shall be in charge of the project progress and will decide upon all relevant technical and administrative issues, such as: redirection of work in a WP, major transfer of resources across WPs or Partners, changes in time plans, resolution of conflict between different WPs. In this respect, Work Package Leaders (WPLs) will oversee the coordination of the individual WPs, with a clear role to ensure that WPs are running successfully. They are responsible for planning and implementing the contents and timely consignment of the deliverables of their WPs, monitoring their performance and guaranteeing the accomplishment of the project objectives. They will provide regularly reports, control the quality and the schedule of the work, and actively participate in meetings. Every WP will be formed by experts/executives from each partner, with complementary expertise, according to the task allocation. They will be the working group that will be leaded by the WP Leader.

The WP leaders are the following:

<table>
<thead>
<tr>
<th>Work Package Leaders</th>
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<tbody>
<tr>
<td>WP1 Pedagogical and methodological framework</td>
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<tr>
<td>WP2 Setting the scene</td>
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<tr>
<td>WP3 SI open learning platform</td>
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<tr>
<td>WP4 Pilot testing</td>
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</tbody>
</table>
Five (5) members of the PSB will be assigned an additional main role. Scientific and technical Manager (STM) who will work closely with the PC, and will be responsible for the overall project scientific implementation. The STM will ensure the scientific cohesion and excellence of the project; oversee the organisation of relevant meetings; supervises the quality of scientific deliverables produced by the WPs; this role will be assigned to Dr Aristidis Protopsaltis (FAU).

Ethics Manager (EM), the role of whom will be to guarantee that the project is proceeding in a responsible and ethically acceptable manner according to the recommended Responsible Research and Innovation aspects. This role will be assigned to Mr Ivan Diego (Valnalon).

Risk and Quality Manager (RQM), the role of whom will be the early identification, assessment, and - along with the support of the PC– the management of administrative and technical risks, as well as the development of the Quality Plan, the implementation of the quality procedures and the verification of the project results. This role will be assigned to Ms Ioanna Garefi (STIMMULI).

Innovation Manager (IM), who will be responsible of the further development of the innovation aspects of the project so as to ensure the successful exploitation of the project results. Innovation management will start from the very beginning of the project and will include a continuous process consisting of closely interrelated and iterative activities taking place in parallel with the other key steps of the project (e.g., research, piloting, evaluation etc.) in order to ensure how innovation aspects will be further developed during the project life. These activities are based on a user-centred approach and include the incorporation of feedback from end users (teachers, students etc.) ensuring that the educational model fits and satisfies existing demand. This role is assigned to Mr Andrew Picken (SEi), who has a relevant knowledge and experience.

Exploitation and IPR Manager (EIPRM), who will be responsible for the exploitation strategy, plan and implementation and ensure that the project dissemination results are appropriate to support exploitation objectives. Also, the EIPRM will be responsible for the assessment and protection of IP, for pre-publication reviews and access and usage rights (foreground, background and 3rd party), during and after the project. This role is assigned to Mr. Cliff Southcombe (SEi) as he is the leader of task 6.4 (Exploitation and sustainability strategy).

Communications Manager (CM), who will be responsible for the project dissemination strategy, plan and implementation and will also support the exploitation communication activities. Also, he will be in charge of the public awareness and community building. This role is assigned to Mr Pedro Jiménez Álvarez (ASOCCE).

An Advisory Board (AB) will be set-up consisting of key experts with deep knowledge and experience in the field of education and social innovation. They will play a key role in the quality assurance-risk management.
management process, ensuring that the deliverables of the project properly consider the current state of art/ prior relevant initiatives in this area. The advisory board contributions will be coordinated by FAU.

Members of the AB include:

- Mrs Emer Beamer, founder of Designathon Works and Ashoka Fellow since 2016 and Lego Re-imagining Learning Fellow.
- Dr Emilio Alvarez Arregui, teacher and counsellor of kindergarten, primary and secondary centres, currently teacher in the Department of Educational Sciences of the University of Oviedo.
- Dr Susana Agudo Prado, worked as a pedagogue for 11 years in a private company designing and managing socio-educational projects. She is currently teacher in the Department of Educational Sciences of the University of Oviedo.
- Dr Alejandro Rodríguez Martín, member of the European Network on Inclusive Education & Disability and currently Head of the Area of Social Responsibility, Support for Inclusion and Equality at the University of Oviedo.
- Mr Gary Durbin, runs the Enterprise Village website and the National Enterprise Education Conference and is involved in entrepreneurial learning and enterprise education for more than 20 years with significant experience and skills in the promotion of programmes and activities in this field.

The Consortium may decide to invite further members taking into account the recommendations of the evaluators, the EC or other AB recommendations.

4.1.3. Structures for decision making, resolving conflicts & controlling changes

Mandatory decision rules and agreements are necessary for the success of the project, to set the decision making and the conflict resolution process. A general guideline to reach agreement as close as possible to the level of execution will be followed, and only if agreement is not reached on a given level, will the decision be escalated to the next appropriate level. Usually, agreement will be reached first by informal contact, followed by official confirmation via electronic mail, letter or agreed written minutes. For important issues, the agreement may take the form of a short report that needs to be signed by those responsible for decision making. In order to deal with the decision making and conflict resolution process, the NEMESIS project has produced a Consortium Agreement Document signed by all partners. This document outlines the way technical, scientific, and commercial disputes will be resolved. As regards the decision making processes, they concern mainly two specific categories: a) decisions regarding issues of technical/scientific nature; and b) decision regarding issues of managerial/administrative nature including financial, IPR issues and the amendment of the contract.

In case the PMB or the PSB members notice any events or circumstances of technical nature that may significantly affect the performance of the work executed in their WP, they are obligated to notify immediately the PC. The PC will try to resolve such issues by consulting the WP Leaders and any partners directly involved in this task or WP. The first step of the PC will aim to reach a compromise between parties, based on consensus, taking into account the conformance to project...
objectives and work plan. In case this mediation does not turn to be successful, then the PC will share the issue with the PMB for reaching a final decision. Therefore, the PMB will try to settle or respond to changes by achieving consensus among the parties involved. If consensus cannot be achieved or/and issues still remain unsolved, the PMB will vote, in order to take the final decision.

In case conflict or dispute arises in the work of one or more project partners, first, the partner or partners involved will try to deal with the contingency. If a resolution is not reached, the conflict resolution process steps listed below will be followed, in their respective order:

- The corresponding WP Leader (if applicable) will be contacted and involved to resolve the issue.
- The WP leader will organise a WP group meeting, the issue will be discussed and the PSB will be informed.
- Involvement of the PSB and, especially, the Project Coordinator.
- Involvement of the PMB that has the authority for the final decision and which must be accepted by all parties.
- If resolution is not achieved, the issue will be brought to the attention of the EC.

For all decision making and conflict resolutions that will not be settled, standard voting procedures will be followed. In these, all members belonging to both the PMB and the PSB will have a single vote, with the exception of the PC who will have two votes. The coordinator has to inform the consortium in written form of his decision to enforce a final solution by majority vote at least one week in advance. In addition, the PC will inform the EC in writing and will discuss the topics with the responsible EC Project Officer before a final decision is made.

### 4.1.4. Project quality management

A quality management process will be implemented to ensure the quality of all outputs of the NEMESIS project in particular deliverables. The Quality Plan described here, will operate as a tool for monitoring activities and measuring progress, assuring both the project’s smooth implementation and the quality of the deliverables. Before submission, the quality of deliverables will be checked at three levels by: (i) the partner responsible for producing the deliverable, (ii) the WP leader and (iii) the PC. Following the initial kick-off meeting in M1, the Consortium meeting and PSB meeting will take place to coincide with critical milestones in project development and the launch of each new phase of the project and to check the coherence of the outputs reached with regard to the Consortium ambitions and the Grant Agreement objectives.

### 4.1.5. Management of communication

Efficient communication and collaboration structures are essential for the success of the project. Since all project partners are distributed across European member states, the centrepiece of the overall project communication will be a protected online collaboration platform, offering to each partner independent access to important documents, code, meeting agendas, supporting materials, individual to-do lists and other miscellaneous project information.
In order to ensure clear and efficient project management, regular WP conference calls, project conference calls, project management meetings and plenary meetings will be organised. PMB meetings, will be held bi-annually (every 6 months), while conference calls may also be held on demand in between. PSB meetings, will be held on a bi-monthly basis (or according to the project’s needs) to monitor the project progress, through conference calls. Meetings at WP level will be held on demand according to the WP progress and needs. The following face-to-face meetings are anticipated:

- **Project kick-off meeting** (M1), to clarify the administrative processes, discuss upon the Consortium Agreement and the time planning towards the milestones.
- **Project meetings** (M4, M9, M12, M13 M20, M25, M27, M28, M33, M37 and M40). Ten two-day partner meetings in locations that rotate across the partners. These meetings will be used for WP-group and cross-WPs meetings.
- **Partner meetings** to discuss project progress and in preparation of EC review at the invitation of the EC Project Officer (M12, M26, M40).

### 4.1.6. Risks management

Given the dynamic nature of any project of this size and complexity, it is quite important, that the consortium have a well-defined risk management process and specific procedures to assure early identification, adequate handling and proper mitigation of potential risks. This process will be presented at a separate section latter on in the document.

### 5. Quality Management

As an integral part of project management, the quality assurance procedures should provide the solid ground for successful, timely and quality implementation of the project activities. The quality management procedures defined in this deliverable form a common standard to be applied and followed throughout the entire project lifetime. Therefore, the main purpose of this document is to define a consistent set of procedures, processes and guidelines in order to ensure high quality standards of the project outcomes. The quality assurance procedures defined in this document focus on:

- Assessing the progress of the work on a regular basis (Performance management - constant monitoring and reporting)
- Managing the interaction between partners during the work execution (Communication Management)
- Defining how and when the documentation and the deliverables have to be exchanged by the partners and submitted to the European Commission (Documents / deliverables management)

### 5.1. Quality management roles

All consortium partners have a key responsibility to produce high quality deliverables and project outcomes. Responsible for ensuring the project’s quality aspect is the Quality and Risk Manager,
Ms Ioanna Garefi (STIMMULI) who is included in the project management structure and particularly in the PSB (section 3). The role and duties of the QRM are to:

- Maintain the quality assurance procedures with the support of a representative from each partner.
- Act as a focal point for quality issues and liaise with partners to ensure that an appropriate level of quality is maintained for each element of the project.
- Ensure that activities and reports are completed to an adequate quality and in a timely manner.
- Review contractual deliverables before submission.
- Monitor and audit the project activities for conformance with the project plans, in particular performing milestone reviews of contractual deliverables.
- Support the project coordinator during the EC audits and initiate actions resulting in complete solutions to them.
- Initiate action to prevent the occurrence of any non-conformity.

All WPL should assist the QRM and shall therefore ensure:

- to adhere to the quality assurance procedures adequately, and
- to immediately inform the QRM of any problems related to quality assurance.

5.2. Performance management

As mentioned before, one of the key elements of the quality assurance procedures is the management of partner’s performance in relation to the project milestones and objectives. To this end, the project’s performance indicators are a key tool to measure the project progress as well as how performance deviates from the plan. Some indicators have already been identified at a proposal level. However, once the project started, the project’s indicators were evaluated and updated in accordance to the projects scope, cost and schedule. The control and review of these indicators is a continuous process which may lead to changes and adaptations, if needed. In overall, the project will be measured against its main indicators at a number of stages: (i) the annual project reviews; and (ii) within additional internal quality reviews coordinated by the QRM. The results of performance measurement and evaluation (indicators and their values) will be part of the progress reporting to the European Commission.

The table below presents the main project’s indicators for ensuring the successful implementation of the project as they have been developed so far. Additional key performance indicators will be developed in order to assess the success of the pilots.

Table 1: NEMESIS Performance Indicators

<table>
<thead>
<tr>
<th>Milestone number</th>
<th>Milestone name</th>
<th>Related WP</th>
<th>Estimated date</th>
<th>Means of verification</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS1</td>
<td>Consultation among all stakeholders to define the</td>
<td>1</td>
<td>M4</td>
<td>Timely completion of D1.1 and D1.2</td>
</tr>
<tr>
<td>MS</td>
<td>SI education framework</td>
<td>M</td>
<td>Timely completion of D1.4 and D1.5</td>
<td>Strong efforts of partners to engage SIPs through existing networks and contacts</td>
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<td>------</td>
<td>------------------------------------------------------------------------------</td>
<td>-----</td>
<td>-----------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>MS2</td>
<td>First organisational change workshop in pilot schools</td>
<td>1</td>
<td>M7</td>
<td></td>
</tr>
<tr>
<td>MS3</td>
<td>Teacher’s Training sessions</td>
<td>2</td>
<td>M10</td>
<td></td>
</tr>
<tr>
<td>MS4</td>
<td>More than 200 members engaged in the SIP community</td>
<td>2</td>
<td>M20</td>
<td></td>
</tr>
<tr>
<td>MS5</td>
<td>User requirements and system architecture</td>
<td>3</td>
<td>M4</td>
<td>Timely completion of D3.1</td>
</tr>
<tr>
<td>MS6</td>
<td>Alfa system Release</td>
<td>3</td>
<td>M10</td>
<td>Timely completion of D3.2</td>
</tr>
<tr>
<td>MS7</td>
<td>System integration</td>
<td>3</td>
<td>M14</td>
<td>Timely completion of D3.3</td>
</tr>
<tr>
<td>MS8</td>
<td>Beta system Release</td>
<td>3</td>
<td>M16</td>
<td>Timely completion of D3.3</td>
</tr>
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<td>MS9</td>
<td>Initiation of the first pilot implementation phase</td>
<td>4</td>
<td>M21</td>
<td>Timely completion of D4.2</td>
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<td>MS10</td>
<td>Initiation of the second pilot implementation phase</td>
<td>4</td>
<td>M33</td>
<td>Timely completion of D4.3</td>
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<tr>
<td>MS11</td>
<td>End of first pilot evaluation period</td>
<td>5</td>
<td>M21</td>
<td>Timely completion of D5.2</td>
</tr>
<tr>
<td>MS12</td>
<td>End of second pilot evaluation period</td>
<td>5</td>
<td>M39</td>
<td>Timely completion of D5.3</td>
</tr>
<tr>
<td>MS13</td>
<td>Establishment of the project website and the project’s visibility in social media</td>
<td>6</td>
<td>M3</td>
<td>Online and fully operational project website and social media accounts</td>
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<tr>
<td>MS14</td>
<td>Launch of the scaling campaign</td>
<td>6</td>
<td>M20</td>
<td>Timely completion of D6.3 and D6.4</td>
</tr>
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<td>MS15</td>
<td>1st Project Periodic Review</td>
<td>7</td>
<td>M12</td>
<td>Timely completion of D7.1</td>
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<td>MS16</td>
<td>2nd Project Periodic Review</td>
<td>7</td>
<td>M26</td>
<td>Timely completion of D7.2</td>
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</table>
A precise reporting and monitoring schedule will be followed to ensure the early identification of deviations from the planned project targets including delays or early finishes and their implications on the overall progress. Results will be communicated to the QRM and to the Work Package Leaders so that corrective actions can be taken in a timely manner in order to achieve optimum performance.

Interim performance reports (every 6 months, between the periodic progress reports) will be prepared for internal purposes and three main Project Periodic Reports (M12, M26 and M40) will be submitted to the Commission, where detailed reporting and the progress achieved during project execution will be presented.

In relation to the **Periodic Progress Reports**, they will be produced within 30 days of the end of each reporting period and will include Technical and Administrative Issues:

- Progress of WP activities;
- Deliverables and milestones;
- Publications (Authors, title, publication, date);
- Conferences and presentations (Date, location, participants, subject, outcome);
- Efforts on each Work package (PMs per WPs and months);
- Meetings (Date, location, subject, attendees);
- Travelling (Date, location, reason to travel, name of the traveller etc.).

Progress reports will also contain the following information:

- a management-level overview of the activities carried out;
- a description of progress toward the scientific and technological objectives;
- a description of progress toward the milestones and deliverables foreseen;
- problems encountered during the project and actions taken to correct them.

The PC will be in charge of preparing these reports and will ask each partner for any additional contributions.

The **interim management reports** will be unofficial and for internal use only. They will be issued every 6 months and they will include brief information about:

- The key results achieved by the project during the considered period (expected contribution by Work Package Leaders);
- The activity performed by partners (expected contribution by all partners);
- Financial figures summarizing the main expenses: travels, equipment, etc.;
- Efforts (a table presenting the used manpower);
- Project risk summary table (table to be updated continuously by each partner and WP Leader).
5.3. Management of Communication

To ensure the successful implementation of the project, a clear communication framework among partners and the EC is essential. This deliverable defines the main communication roles, responsibilities, processes and tools that will ensure an efficient cooperation and communication among partners.

5.3.1. Communication Roles and Responsibilities

The Project Coordinator is the main contact point to the EC. Therefore, Dr Aristidis Protopsaltis will coordinate the preparation of all required official reports, amendments and project reviews for the EC summarizing progress on project tasks, deliverables and budget usage and reporting any deviations and corrective actions put in place. Dr Aristidis Protopsaltis will follow up with all WPL and partners to ensure accurate and timely task reporting in line with the DoA. WPL will respond to the EC via the coordinator on any issues raised in periodic reports or with deliverables relating to particular WPs thus ensuring a satisfactory response is provided.

5.3.2. Communication tools

In order to assure an efficient internal communication between partners, the NEMESIS project adopts the following tools:

Consortium meetings:
All project partners are represented at physical consortium meetings. Consortium meetings are held to ensure all partners are informed of the overall progress against objectives and to ensure all partners are aware of the priorities for the next phase of development of the project. The PC is responsible for ensuring that consortium meetings take place at regular intervals over the duration of the project. Any concerns or suggestions put forward at Consortium meetings will be addressed in detail by the Project Steering Board. The Consortium Meeting is primarily a communication mechanism to ensure all partners are aware of project progress and future priorities.

All the partners involved in the project are expected to participate in the consortium meetings. These meetings are chaired by the Project Coordinator and involve the QRM and all representatives from each partner. In principle, they take place every four months; additional bilateral meetings can be arranged if needed. The PC is responsible for organising the Consortium Meetings, sending an invitation and agenda to all partners and preparing and circulating the minutes to partners within 14 calendar days after the meeting. The minutes can be amended by all members participating the meeting within 7 days after sending the first version. The PC integrates all changes and releases the final version of the minutes notifying all partners accordingly.

Online Meetings:
Meetings will also be held remotely by teleconference. The GoToMeeting Conference Tool and Skype will be used to organize short remote meetings between partners. “All partners” online meetings are planned to take place on a monthly basis to track progress on the project, report on deviations from plan (if applicable), agree corrective actions (if necessary) and agree on
commitments for the coming months. However, additional online meetings, either for the whole consortium or bilateral, can be arranged depending on the particular needs of the project. The information related to connect to the meeting as well as the agenda will be circulated not later than a couple of days before the meeting. The person convening the meeting shall take the minutes, which should be prepared and circulated within 7 days after the teleconference.

**E-Mail:**

Electronic Mail will be one of the major means used in the project to exchange information. Therefore, a special mailing group has been created. This e-mailing group (nemesis@fim.uni-erlangen.de) contains the NEMESIS working groups and it is used for several purposes: advice the availability of new information, circulate agendas of meetings and events relative to the project, etc. The use of the e-mailing group is strongly recommended, whereas the usage of person-to-person private emailing should be limited, so as to privilege visibility within the project to all people working in the project.

**Skype:**

It is recommended that each participant uses Skype for quick day to day communications. This tool allow partners to “see” when a colleague is on-line and a quick check can be made to determine whether he/she is available for discussions, light document exchange etc.

**FAUbox:**

For documents exchange partners should avoid sending documents as attachment but instead saving them in the project’s document repository (FAUbox, FAU’s document repository) and inform (through email) the partners accordingly. The FAUbox has been realized at the FAU by the Regional Computing Center Erlangen (RRZE), uses the software "Powerfolder". The data is stored on the servers of the RRZE, but after an authentication via the cloud service at any time from different devices worldwide via an encrypted connection - regardless of whether office computer, smartphone or notebook.

The project’s folder in FAUbox acts as a primary means of communication for the delivery and interchange of documents, templates, dataset and multimedia contents. All project participants are granted access to the shared folder. Each project partner is responsible to notify the PC of changes of project participants in their organization, in order to allow the PC team to update the lists of users involved in the various work packages.

**NEMESIS- SI open learning platform based on ilias:**

The Open Learning Management System 3 ILIAS is a powerful and flexible tool for learning and collaborating online. It serves as a knowledge and collaboration platform. The platform will be used as base for the NEMESIS SI open learning platform. However, the platform will also be used by the consortium for collaboration, planning and exchange of files. The members of the consortium will be able to communicate between them, either via emails or messages, structure tasks, upload documents etc. Different areas for each WP will be created and all the documents will be categorised accordingly.
5.4. **Documents /deliverables management**

All documents and reports produced by the NEMESIS partners are expected to satisfy a set of specific quality criteria:

- To respond qualitatively to the objectives presented in the DoA;
- To be delivered within the time frame set in the DoA;
- To undergo a three level review as defined in this document;
- To be presented in corresponding templates provided by the PC.

Therefore, this deliverable defines the procedures to facilitate management of documents produced by the project partners. The objective is not to create complex management tasks, but provide to each participant a simple guidance to perform activities properly. In order to keep documentation updated and available to all partners, a special folder in FAUbox was already set up and particular templates have been created to be used for deliverables, reports, minutes and presentations which are also stored in the project’s FAUbox folder.

5.4.1. **Deliverables development process**

All the project deliverables to be produced are listed in the NEMESIS Description of Action (DoA). Each deliverable has to be submitted to the EC, and preliminary approval obtained from the Project Officer. Final acceptance of deliverables can only happen in an official review meeting. Deliverables are essential for the Commission’s assessment on how the project is evolving, since they present and analyse the results produced during the project. Therefore, the high quality of deliverables is a key priority for the NEMESIS project.

To ensure the quality of all deliverables a specific development and review process is defined. For each deliverable there is a Lead Author who coordinates the production of the document, interacting as necessary with the other partners involved. The Lead Author is normally a person working for the consortium partner who is responsible for the deliverable and is already identified in the DoA. As a starting point, the Lead Author defines the document structure and the contributions expected from each partner. When needed, the Lead Author proposes a plan and a calendar for conference calls or meetings he/she may consider necessary for the development of the deliverable.

Then the deliverable will be produced and the Lead Author will merge all contributions into a single document. To ensure the quality of the deliverable three different control levels are established:

- 1st control level: Each deliverable should be circulated to all partners 3 weeks before the submission deadline. Partners should have one week to review it and send their comments. (1st control level: all partners)
- 2nd control level: The Lead Author will then prepare a second draft, which will be sent to the WP leader for review. The formal approval of the deliverable (final content and changes) will take place in this level. (2nd control level: WP leader). In case the Lead Author is the same person with the WP leader then the second control level can be directly with the project coordinator or with a partner having the relevant expertise.
• 3rd control level: The Lead Author will then release a final version and send it to the Quality Manager at least one week before the contractual date for the final check. The Quality Manager will not normally enter into the technical merits of the deliverable, but will essentially ensure that it is of sufficient quality to be sent to the Commission. (3rd control level: Quality Manager).

Finally, the deliverable will be submitted to the EC by the Project Coordinator. This timeline might change depending on the deliverables complexity but this should be agreed in advance with all the partners.

6. Risk Management

Given the dynamic nature of the NEMESIS project, its size and complexity, it is very important that a risk management and contingency planning are in place to ensure the project strategy, operations, outcomes and budget remain on track. The objective of risk management is to provide the process and techniques for the evaluation and control of potential project risks, focusing on their precautionary diagnosis and handling.

6.1. Risk management approach

Risk management will take place through different processes: risk identification, analysis, management, and monitoring. Particularly, this involves the identification of a risk, the assessment of its importance and the evaluation of whether the risk level/impact is higher than the risk that could be accepted for the project. In case that a risk exceeds the acceptable levels, a risk analysis activity will be instantiated that will define the required actions in order to set the risk within acceptable levels. The management of risks in the NEMESIS project involves the planning of contingency actions, the redistribution of resources, the evaluation of the results, as well as ensuring the stability of the new status. In addition, the pre-identification of the several types of risks that may potentially appear during project implementation, as well as the means to proactively handle and successfully address them so as to minimise potential uncertainties as much as possible is very important.

6.2. Risk management Roles and Responsibilities

Regarding the monitoring of risks identified, as well as updates, this will take place on an ad-hoc basis (when a new risk is identified) or once every six months. The QRM, Ms Ioanna Garefi will be in charge of risk management, in particular for illustrating any recurring and potential risks, and highlighting any opportunity emerging from a risk through a Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis. The QRM will inform the PC, Dr Aristidis Protopsaltis, regarding the identified risks by providing a description of the risk and relevant documentation demonstrating the connection of the risk to the project activities and work plan. The PC may decide to undertake the necessary actions to address the risk by:

• Defining new project activities to ensure the mitigation of risks.
• Assigning a priority level of activity for mitigating the risks.
Allocating human resources required to perform the necessary activities of risk mitigation or request the opinion of the Project Steering Board.

WP leaders will also play a key role in risk identification. WPL are expected on the monthly “all partners” conference calls to present an assessment of progress in their WPs where any potential risks can be identify at an early stage and the appropriate actions can be planned. Additionally, risk assessment will be part of the internal reports (every 6 months). In the reports, WPL will also present an assessment of risks that may hinder progress regarding their WP and propose contingency plans where necessary to address any specific identified risks.

In particular, the types of risks that may emerge in a project like NEMESIS include:

- **Operational risks**: WPLs together with the PC should identify as early as possible any barriers to be overcome in order to meet WP objectives, the activities required to overcome these barriers, the personnel allocations which will provide the right competencies to perform the tasks and the time / budget allocation rules which allow to reach the intermediate objectives;

- **Time risks**: WPLs together with the PC should identify any schedule change or delay in producing the expected tasks and the impact of such a delay on the overall progress of the project; the organisational and budget changes which may be necessary to catch up on delays.

- **Competence risks**: Partners should identify as early as possible the required personnel to perform the tasks as well as the possible conflicting demands for the required personnel within each organization.

- **Budget risks**: in the event that a contingency plan is implemented to overcome any identified risks, the PC should assess the impact on the WP budget and overall project budget and a solution among partners should be agreed;

- **Deliverable risks**: Any risk to deliverable production, including risks relating to content, deadlines or quality levels, should be identified by the WP leaders the QRM and the PC. In case of delays the PC is responsible to communicate with the PO and find a solution.

### 6.3. Risk management process

All identified risks will be incorporated into a Risk Log File and duly characterized by:

- Risk number
- Responsible partner (the partner responsible for its resolution and follow-up)
- Description (textual)
- Impact/risk level (high, medium, low)
- Likelihood (unlikely, likely, very likely)
- Situation (pending, solved)
- Proactive measures
- Action (adopted countermeasures or remedial actions).
All risks, when incorporated into the Risk Log file, will be maintained as permanent registers (never deleted) in order to provide a complete, accurate and updated view of all the incurred risks of the project (irrespective on whether or not they have already been solved).

For every new major risk identified, the PSB will prepare a contingency plan to assure the quality of project results and deliverables and the on-time execution of the project activities. All contingency plans will be incorporated into the overall organisational work plan of the project and will be further accompanied with partners’ responsibilities to handle them. The table below summarises an indicative list of the risks identified by the project consortium at proposal-stage level and their related contingency plans.

Table 2: Critical risks for implementation

<table>
<thead>
<tr>
<th>Description of risk</th>
<th>WP involved</th>
<th>Proposed risk-mitigation measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>The multidisciplinary approach of the pedagogical framework’s definition, introduces higher than planned level of complexity.</td>
<td>WP1</td>
<td>The consortium includes partners that have multiple perspectives on education. This strength of the project allows for quick resolution of multidisciplinary challenges.</td>
</tr>
<tr>
<td>Difficulties in engaging SIPs</td>
<td>WP2</td>
<td>Already existing networks (SEI) will ensure that such difficulties will be easily addressed.</td>
</tr>
<tr>
<td>Lack of the necessary communication and coordination during pilot phases</td>
<td>WP4</td>
<td>In the case of communication problems, WP4 leader is responsible to ensure the transfer of all necessary information to project pilot partners. In the case of misunderstanding personal meetings will be implemented.</td>
</tr>
<tr>
<td>Difficulties phased by external schools to implement and test the educational model during Pilot Period2</td>
<td>WP4</td>
<td>Online courses targeted to teachers and available through the project platform will support external schools to implement the educational model. Support through emails and webinars will be also provided by the partners if needed.</td>
</tr>
<tr>
<td>Not enough Pilot running and evaluation takes up more than half of the</td>
<td>WP5</td>
<td></td>
</tr>
</tbody>
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<tr>
<th>Evaluation data are gathered. The proposed educational model is not sufficiently validated</th>
<th>project’s timeline. Consortium consists of partners that have extensive and proven experience in designing and implementing pilots. These project provisions demonstrate that insufficient validation risks are minimal.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ongoing dissemination may take more effort and resources than planned</td>
<td>(a) Continuous on-line liaison between the Partners on their use of resources, (b) shared dissemination opportunities with other related projects, and (c) previous relevant experience of the Partners, will ensure that this does not occur.</td>
</tr>
<tr>
<td>Limited scaling of the educational model during pilot period 2</td>
<td>The involvement of ESHA that represents 66000 school leaders in Europe and the organisation of a European wide scaling campaign will ensure maximum results during the large-scale pilot period.</td>
</tr>
<tr>
<td>Financial risk</td>
<td>Technical/implementation challenges and any uncertainty associated with the project’s evolution can pose a significant impact on project costs. For this reason, administrative/financial management will not be limited to reporting but it will also include a close financial monitoring process so as to constantly assess financial progress and be able to identify early signs of concern.</td>
</tr>
<tr>
<td>Changes in the project team</td>
<td>Identify these changes the soonest possible. Require from partners to include substitutes with equivalent (or higher) qualifications and experience. Inform the substitutes in detail about the project, their role and responsibilities.</td>
</tr>
</tbody>
</table>