



## **Deliverable 1.2** **Detailed risk management plan**

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PU	Public	X
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	



## **Abstract**

The purpose of this document is to provide a risk management framework for the EMBRIC project, to ensure that adverse situations are properly managed along the evolution of the project.

This plan documents the processes, tools and procedures that will be used to manage and control those events that could have a negative impact. It exposes the proposed risk management approach of the project for managing and controlling all project risks. Moreover, this plan will address the roles and responsibilities of the organization, the risk identification, as well as risk assessment and mitigation plans. A table summarizing the risk management plan is presented at the end of this Deliverable.



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# 1 Introduction

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Risk management is an continuous process throughout the lifetime of a project and addresses the planning of risk management, identification, analysis, monitoring and control. This document outlines policies and procedures for identifying and handling uncommon causes of project deviations that may compromise objectives, i.e. risks. Risk assessment will be updated throughout the project lifecycle as unexpected sources of risk can be identified at any time. It is the objective of the risk management plan to decrease the probability and impact of events adverse to the project. In contrast, any event that could have a positive impact should be exploited.

The EMBRIC (European Marine Biological Resource Infrastructure Cluster) is a cluster of six Research Infrastructures (RI) with the objective of promoting innovation and technology transfer in marine biotechnology in Europe. The EMBRIC project is characterized by its large and diverse consortium involving 27 beneficiaries and more than 70 Associated Partners coming from research institutes, academia, SMEs and non-governmental organizations in 9 European and Associated Countries.

Transparency and a good communication between the Management Team (MT), Work Package (WP) leaders and the project members are key to avoid problems and conflicts before they arise. A good communication strategy will favor the cohesion among the participants, while giving a positive image of the project to the outside.

Some of the major perceived risks related to the project work plan are listed in table 1, including a classification of their probability and a description of contingency measures envisaged by the consortium.

The goal of this document is to allow the Management Team to accurately and timely try to avoid unwanted risks and, as necessary, take action in mitigating or applying corrective measures to control potential negative effects to the project.



## 2 Roles and Responsibilities

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This section explains that is the roles of people within the project regarding risks management.

### 2.1 Management team (MT)

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The MT is responsible for handling the organizational, legal and financial management of the project and to ensure that obligations and responsibilities towards the European Commission are met by the consortium.

The MT is composed of:

- The Scientific Coordinator, Bernard KLOAREG (UPMC)
- The European Project Manager (PM): Fanny SCHULTZ (UPMC)
- The Scientific and Technical Manager: Mery PIÑA (UPMC)
- The legal and financial departments of UPMC headquarters

The MT will endorse the risks management of the project and is responsible of the risks management process, assuring the monitoring and control of risks of all project activities. The project risk management plan is the responsibility of the MT, but the all the partners should be involved in it, and in particular, the WP leaders regarding the risks within the tasks of their WP.

### 2.2 Work Package Leaders

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The WP Leaders are responsible of the implementation of the work within their own WP, so they have to bear the specific risks for the deliverables and milestones within the WP they are leading. They assure the identification and management of the risks and they should inform the Management Team. If new risks are identified, they should be reported to the MT who will update table 1.

### 2.3 The Executive board

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The Executive Board (EB) of the project consists of the Scientific Coordinator and nine WP Leaders. In collaboration with the MT, they will monitor the project and prepare the decisions to be taken by the General Assembly. Concerning the risk management plan, the EB should advice the MT and the partners if problems cannot be easily resolved.



## 2.4 Advisory Board

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The Advisory Board (AB) is responsible for providing advices and strategic inputs. The AB members should follow the assessment of risks by the Consortium and the resolution actions.



## 3 EMBRIC risk management action plan

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### 3.1 Risk identification and assessment

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Risk identification is analysed throughout the life-cycle of the EMBRIC project. The following issues shall be considered as tools and techniques for risk identification:

- Analysis of deliverable status
- Analysis of WP schedules and scopes
- Regular communication of the Management team with the WP leaders

In Figure 1 a schematic representation of the EMBRIC risk management process is shown.

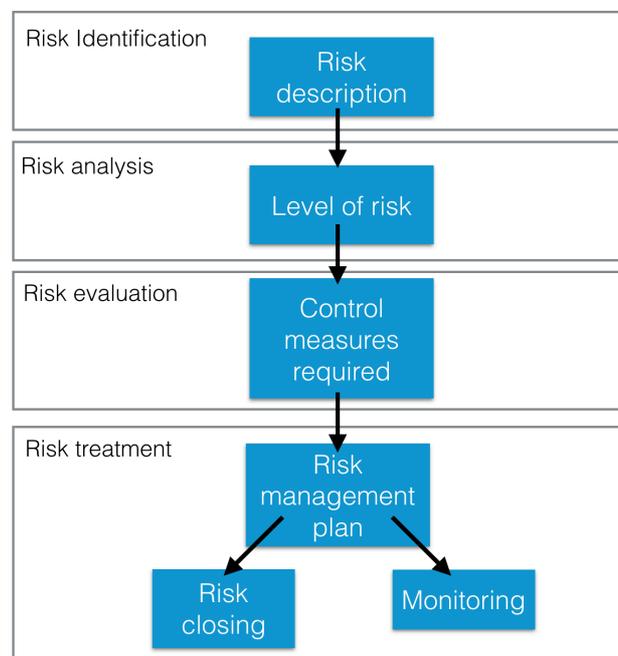


Figure 1 – EMBRIC risk management process

The risks will be written down in a [risk management register](#) by the Project Manager. This register will be accessible to all members through the Basecamp of each WP. The risk management register contains the following information: Risk Number, Description, concerned WP and Proposed risk-mitigation measures.

The exposure to a given risk is estimated using the risk matrix in figure 2. Concerning each of the risks, the Project Manager, in collaboration with the WP leaders, will estimate the probability they could become problems (Low/Medium/High).

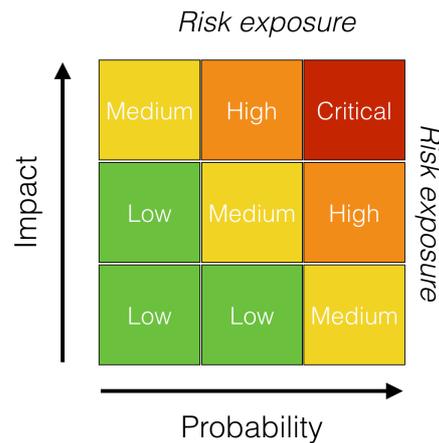


Figure 2 – Risk matrix

### 3.2 Risk monitoring

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It is the responsibility of all EMBRIC partners to communicate the Project Manager about the status and effectiveness of each risk and mitigation plan in order to update the risk management register and assess the relevance of the tools. Risk exposure will be continuously reevaluated and modified accordingly.

If any new risks are identified by a partner, they will be analyzed as those on the original risk list and then added in the register.

### 3.3 Risk-mitigation measures

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Each partner is responsible for executing the risk mitigation activities which relate to the WP they lead. If a mitigation action cannot be effectively carried out or does not solve the risk, the risk exposure is likely become more important. In this case, visibility of the risk has to be highlighted by the Project Manager and the mitigation measure modified in an efficient way.

An item can be considered closed when the following criteria are brought together: the risk-mitigation measures have been implemented and a new exposure risk is estimated as low using the risk Matrix.



## 4 The Risk Management table

EMBRIC risks are registered within the risk management table register presented below, which will be available in the EMBRIC internal platform and updated at least at the end of each reporting period by all partners. The table contains three different sections. Section 4.1 is dedicated to the foreseen risks i.e., those risks, which have been identified at the proposal stage. Section 4.2 lists the unforeseen risks, which have been identified since the beginning of the project. Section 4.3 presents the risk mitigating measures that have been taken during the project.

### 4.1 Foreseen risks

The following table lists the Risk identified in the Annex 1, which has been forecast by the Consortium before the beginning of the project.

Risk Number	Description of Risk	Work Package Concerned	Proposed risk-mitigation measures
R1	Lack of overall coordination	WP1	Effective coordination is ensured by the managerial structure and through the project work plan. The coordinator has extensive experience in coordinating large EU and national projects. In case of unforeseen events, other experienced persons at the coordinating institute or at other partners can take over coordination tasks.
R2	Ineffective overall management	All the WPs	Effective management is ensured through timely recruitment of a capable, expert and socially adept Project Manager (PM) with proven skills at managing large, complex projects. The PM will be given the resources and support needed to perform tasks effectively. Tasks of the PM and the coordinator will be delineated to ensure harmonious collaboration. In case of problems, the coordinator is a resolute problem solver.
R3	Consortium disruption	WP1	All partners have experience and proven track records in large collaborative R&D and infrastructure projects. All are motivated to reach the project objectives, which have been



			defined in the common interest of all partners. Any partner not adhering to this common interest will be excluded from the project.
R4	Lack of support from MSs for signing the MoU among the collaborating RIs at M48	WP1	Most partners are part of Ris with confirmed national support in their member states (MS). Although the majority of Ris have no legal status yet, MSs have committed to making this happen. Many blue biotech companies have already expressed strong support for the EMBRIC collaboration and its objectives, which should motivate policy makers to support the cluster of existing Ris.
R5	Conflicts in the Consortium	WP1	A comprehensive Consortium Agreement will be formulated by all partners. The PM will follow strict administrative guidelines and implement actions against partners failing to comply with procedures agreed upon in the CA. The PM will maintain an easily searchable record of all relevant correspondence among partners to aid the coordinator in resolving conflicts. The coordinator has experience in conflict management in European Projects. All partners have a track record of solving emergent problems in a collegial spirit.
R6	Some participating Ris fail in their construction phase and do not become ERICs	All the WPs	This should not compromise the overall implementation of the project proposed here, in view of the different timelines. However, this would reshape the longer term configuration of the EMBRIC cluster.
R7	Delays in deliverables	All the WPs	The PM will install the tools necessary for effective monitoring of project progress. A system will be implemented to spot delays of critical deliverables (those that link to milestones) early; mitigating actions will be discussed with WP-partners involved to keep the project on time. Partners in WPs will appoint project personnel in time. When they possess spare capacity, failure of one will be mitigated quickly at others. Moreover, the whole framework of the project with WPs 2-5 collaborating with JDA WPs 6-8 and TA WP10 is focused on solving emergent problems collectively and harmoniously.
R8	Coordination problems within individual WPs	All the WPs	Most WPs involve multiple partners, which collaborate to achieve their tasks in a timely manner. To achieve this, the work has been partitioned into internally coherent tasks with internal or EU-deliverables (only the latter are indicated, the internal ones serve to track progress). Task-leaders and WP-coordinators will monitor progress and flag problems in a timely manner to enable harmonious mitigation.
R9	Ineffective collaboration among WPs	All the WPs	The essence of this project is that WPs collaborate. WPs 2-5 will provide the designs for interconnecting different sections of the workflows and for servicing the smooth operation of these workflows. The JDAs and the TA will prototype test these emergent workflows. The required collaboration will be ensured through a strong internal communication structure fostered and aided by WP1, ensuring effective information flow.



R10	Ineffective harmonization among the involved Ris	All the WPs	It is essential that workflows established between different Ris run smoothly. This implies harmonization of procedures and protocols among Ris so that the output of one RI forms an ideal input for the next. Workshops and meetings will be organized throughout the lifetime of the project. These activities will establish or enhance professional links and contacts across the consortium in order to harmonize services through exchange of best practices.
R11	Delays due to gaps and bottlenecks in the service provision of EMBRIC	WP2, WP3, WP4, WP5	The consortium partners have been selected to minimize gaps and bottlenecks in service provision. The purpose of exposing the workflows to testing (WPs 6-8, 10) is to reveal remaining gaps and bottlenecks (WPs 2-4). These will be dealt with during the project's lifetime through: (i) recruiting back-up capacity from within the partner network, (ii) providing accurate information on the TA web-portal (MS at M18) on available pilot services, (iii) on-site screening of TA proposals for feasibility, (iv) outsourcing critical and time-consuming batch tasks (e.g., genome sequencing) that can be done faster, better and cheaper by specialized companies. In the long run, EMBRIC will deal with exposed gaps and bottlenecks through strategic decisions about addition of new partners or of new service elements at its extant partners.
R12	Bottlenecks in the work	WP6, WP7, WP8	WPs 6-8 have been designed based on the existing and potential capacity in the consortium. Joint development activities are considered low-risk because the partners possess the knowledge and networks of colleagues inside the RI-consortium to deal with any emergent problems. Scientific problems will be resolved by the collaborators within WPs, by collaborations between cognate WPs (e.g., WP6 and 7) and with the backup of WPs 2-5 and 9.
R13	Problems with TA provision	WP10	To ensure timely and seamless provision of TA, a capable Access Officer will be appointed to oversee the TA programme. A web portal will be implemented on the project website advertising services of EMBRIC. Only partners that are members of ESFRI Ris are partners in WP10, most of which have extensive experience with previous projects involving TA such as ASSEMBLE and EMBRC.
R14	Failure to obtain TA requests in line with EMBRIC objectives	WP1, WP10	The TA programme in EMBRIC will start at M24 allowing for timely promotion. Information on project objectives and requirements of proposals will be targeted to diverse potential user communities via the TA web portal and other channels (WP1). TA will be free of cost for the users and application procedures will be simple and straightforward.



## 4.2 Unforeseen risks

The following table lists new risks arisen after the project start.

Risk Number	Description of Risk	Work Package Concerned	Proposed risk-mitigation measures
R16	Delayed start of the WP3 and the delayed recruitment of personnel by some participants of WP3. Deliverable 3.1 is delayed.	WP3	Recent recruitment of WP3 Project Manager will mitigate risk.
R17	Heterogeneous nature of WP3 members is needed but might slow down development of harmonized pipelines	WP3	Five teleconferences have been performed to harmonize. Face-to-face meetings (e.g., at conferences and workshops) will help to agree on common tasks and approaches.
R18	Timely communication of key findings and project process issues within and across work packages	All the WPs	The smooth running and progress of EMBRIC relies on good communication and use of appropriate communication tools. Regular Executive Board meetings bring the WP Leaders together to discuss such issues and the Basecamp platform tool has been established to facilitate this. Partners are encouraged to use this tool and all other means at their disposal to communicate and ensure timely delivery of activities, milestones, deliverables and reports.
R19	Unexpected leave of the Project Coordinator	All the WPs	Mitigation will be ensure as follows: the MT will be supplemented from UPMC forces taken from within partner 1.
R20	The website is not evolving at the same speed as the project	All the WPs	The possibility of subcontracting an external service will be explored



R21	The TA portal cannot be handled by the website provider	WP10	The possibility of subcontracting an external service will be explored
R22	EMBRIC develops into a perennial organization beyond the lifetime of the cluster project, independent from, out of control of, and in possible competition with the partnering RIs	All the WPs, Directors of participating RIs	The partner RIs will follow from close the development of the EMBRIC cluster project through their participation in the EMBRIC Advisory Board. The directors of the participating RIs will assess <i>via</i> an MoU how to conduct and further develop shared TA programs and incorporate the EMBRIC deliverables into their functionalities.



### 4.3 State of the Play for Risk Mitigation

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Risk Number	Period	Did you apply risk-mitigation measures?	Did your risk materialise?	Comments
R7	1	[YES]	[YES]	[Insert comment if needed; <b>mandatory</b> if the risk mitigation have <b>NOT</b> been applied.]
R16	1	[YES]	[YES]	
R19	1	[YES]	[YES]	This did actually happen as the Project Coordinator was away from work for 2-3 months, due to sickness leave. Should this happen again, mitigation will be ensure as follows: the MT will be supplemented from UPMC forces taken from within partner 1.
R21	1	[YES]	[YES]	

