# MISTRAL

Meteo Italian SupercompuTing poRtAL

## Deliverable 1.4

### Quality Control, Risk Management and IPR

<table>
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<th>Deliverable Lead</th>
<th>CINECA</th>
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<tr>
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## Document Control Page

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<th><strong>Title</strong></th>
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<tr>
<td><strong>Creator</strong></td>
<td>Cineca</td>
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<td>Mistral Consortium</td>
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Executive Summary

The Quality Control, Risk Management and IPR plan is a reference manual containing the project management strategy and procedures, integrating the results of the proposal’s evaluation and decisions taken by the consortium in the Consortium Agreement. The Risk management, which was already mentioned in the proposal, are here elaborated on in full detail, a plan for managing IPR-related issues is developed and components, activities and interactions of management bodies are outlined.

The present document summarizes the management principles and methods to be followed in the project and will be used as a reference document by the project partners, in addition to the Consortium Agreement that is in progress to be signed by each project’s partner. It sets out a general approach to quality assurance by highlighting methods and procedures for the monitoring of the work performed on the Mistral activities. The document also defines the roles and responsibilities of the partners involved in the deliverable production, describes the review methodology to be followed and makes reference to the relevant templates which will have to be used as part of the quality management.

Risk management procedures are highlighted in order to identify possible risks or deviations from the Work Plan at an early stage and to take any necessary remedial actions as soon as possible.

Finally, the IPR Management plan sets out the rules, regulations and procedures involved with the management of all IPR-related issues.

The Quality Control, Risk Management and IPR Plan provides a common framework for:

- Effective internal communication
- High quality production and validation of deliverables
- Efficient project management, project planning and control processes
- Pro-active deviation reduction and problem management
1. GENERAL ORGANIZATION OF THE PROJECT

1.1. Tasks and Activities

The Mistral project involves activities addressing different areas, which need to be implemented in parallel, but with significant interactions and feedback among them.

Every activity is under the responsibility of a Activity Leader who is in charge of managing it as a self-contained entity. The scope of this responsibility includes the technical coordination and supervision of the activity, planning and control of the necessary activities, preparation of all relevant deliverables, collection of contributions from the other partners participating in the task, and participation in all meetings planned within the activity. Coordination is secured through the setting of regular conference calls or meetings with the Coordinator, other Activity Leaders and specific Task Leaders.

The tasks included in every work package are not just a sub-division of the work, but they constitute key elements of the project with a significant degree of autonomy, jointly contributing however to the goals of the activity.

In this context, a Task Leader has been appointed to each task. The role of the Task Leaders is essential for the project since they are responsible for the coordination and management of their task(s) and the timely production of the associated deliverables with contributions by task team members. They regularly report task status and performance to the pertinent Activity Leader and the Coordinator (when necessary) in order to enable the latter to identify variances against the task objectives/timetable/resource plan, evaluate the overall activity performance, and decide on the ensuing time schedule and allocation of activities and resources.

Finally, task teams, formed with sub-groups and individuals from the partner organizations, are responsible for 1) carrying out the technical work as described in the work plan; and 2) applying the risk management method of the project, identifying any alterations or additions needed in the work plan. They are responsible for the timely delivery of any input necessary for the deliverables.

As specified in the Project Plan, the project is planned for a duration of 24 months and the activities are structured into 5 Activities. In Annex 1 there is the list of deliverables foreseen for each activity.
1.4 Quality Control, Risk Management and IPR

<table>
<thead>
<tr>
<th>Activity No</th>
<th>Activity Title</th>
<th>Lead P. No</th>
<th>Lead P. Short Name</th>
<th>Start Month</th>
<th>End month</th>
</tr>
</thead>
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<td>24</td>
</tr>
<tr>
<td>2</td>
<td>Dissemination, Outreach and Sustainability</td>
<td>2</td>
<td>ARPAP</td>
<td>1</td>
<td>24</td>
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<tr>
<td>3</td>
<td>Mistral Use Cases</td>
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<td>Open Data Policy</td>
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<td>CINECA</td>
<td>1</td>
<td>24</td>
</tr>
</tbody>
</table>

Table 1: Overview activities of Mistral

1.2. Project Deliverables

The deliverables foreseen throughout the Mistral activities will be produced throughout the entire project lifecycle under the responsibility of different partners. Each partner should keep track of what deliverables are under its responsibility and ensure that they are developed and submitted for revision within the provided timing. The list of deliverables is in Annex I.

All deliverables must be reported upon using the provided template for deliverables (Annex II) and must be drafted in a professional manner and in English, making sure to avoid spelling mistakes and typos. Certain tasks, which are not report-based, e.g. project website, communication material, etc, will be part of relevant deliverables. A useful instrument can be found in Annex III, which provides the checklist for submission of report-based deliverables.

The list of deliverables (Annex I) provides indication about the deadlines for the submission of all the deliverables as well as the partner in charge. When, for any reason, a deadline is modified and when this modification has been agreed upon by the responsible authorities (i.e. the Project Coordinator, the Project Management board and the Project Officer), the partner(s) in charge will be informed and an updated list of deliverables will be provided.

The indicated date of delivery is given as a month number with respect to the work plan. Deliverables are due to be submitted to the European Commission (EC) at the end of the indicated month. The Partner in charge of the deliverable must consider that the full development of a deliverable also includes the preparation and consolidation of contributions from partners and its review and revision by other partners, generally the Activity Leader and/or the Coordinator. The ultimate acceptance of a deliverable is in the hands of the Coordinator. No deliverable can be considered final until the Coordinator has approved it.
2. QUALITY CONTROL PLAN

2.1. Peer-review procedures
A high quality standard is maintained throughout the project with intermediate verifications and via an intra-consortium peer review system of all deliverables.

Mistral aims to maintain a structured internal review system by which intermediate results and deliverables will have to be validated by at least one competent project partner other than the one delivering. Failure to comply with the extended quality standards will translate into a management alert, which can eventually lead to corrective actions (as described in paragraph 4. Risk Management).

2.2. Procedure and Timing
The general procedure for validation and submission of a deliverable follows the following structure:

- Draft deliverables, based on the continuous monitoring of task activities done by Task leaders, is sent by Task Leader to the Activity Leader and Project Coordinator (CRB) at the latest 15 days prior to the deadline for any comments and revisions.

- Within 7 days, the Activity Leader and the Project Coordinator assess the draft of the deliverable and send feedback in the form of comments, amendments, recommendations and requests for improvements to the respective Task Leader in charge of the deliverable.

- The Author of the deliverable carries out the required improvements with the highest priority, and sends it back to the Activity Leader and Project Coordinator within a further 2 days max.

- Activity Leader firstly, and Project Coordinator secondly, verify the satisfactory implementation of all recommendations and subsequently confirm the final approval of the deliverable.

- The Project Coordinator submits the deliverable to the EU Commission.
3. PROJECT GOVERNANCE STRUCTURE

The efficiency of the project management will be ensured using a sound organizational structure, clearly assigning obligations and rights to the different participants of the project.

All the partners of the consortium will be involved in the management of the project at some level, with different responsibilities according to the position covered and the tasks performed.

This organizational structure will be supported by project management methods relying on the latest communication and collaboration technologies.

The general responsibility of the management will be assigned to Cineca, who will use its experienced staff plus the possible consultancy of external experts when necessary. The main managerial matters will be covered by the coordinator’s Project Management Team (PMT), with advanced skills in project management, contractual, legal, financial, and administrative issues. A specific team covering all the above mentioned skills is already active at the coordinator’s site and will also represent the internal link between the project partners and the external link towards the European Commission.

The project management activities, described in the Activity 1 section, will be submitted to precise Quality procedures. All the public reports and deliverables will be published on the website and the internal private reports on the intranet of the project, reachable also by the EC with a private login.

**Project Coordinator (PC).** The PC is the partner in charge of leading the consortium, organizing its day to day management and monitoring the overall execution of the project. It acts as the link between the consortium and the European Union and organizes the financial and administrative reporting according to the reporting periods foreseen by the work-plan.

The Coordinator partner, Cineca, is an ISO-ITIL certified company (the certificate includes the management of projects activity), and will undergo a procedural approach to the project in order to ensure a continuous and thorough monitoring of the activities. As a result, the partners will become aware of the potential problems faced and be able to implement quick and effective corrective actions, before the potential problems affect the overall performance and achievement of objectives.

3.1. Description of Bodies and Boards

**Project Management Team (PMT).** The leader of the PMT will be the Project Coordinator (PC), who will be responsible for the implementation of the project and the fulfillment of the
contractual obligations with the EC. The Coordinator will be assisted by a structured team of co-workers, who act as skilled referent points for the aspects of EC project management and coordination, legal, financial and administrative matters, dissemination, marketing and public relations, as well as partnership management and contacts with the EC. All those persons are already present in the Cineca staff and will be formally allocated according to the specific needs of the project. Assistant persons, with specific skills, will be recruited if necessary. The project management group operating at Cineca has been in charge of the management of several projects funded by the EC under the FP6 and FP7. The partners and the project officers in charge consider most of them success stories. In FP6 and in FP7 Cineca coordinated HPC-Europa, then HPC-Europa++ and HPC-Europa2, while in H2020 CINECA is also coordinating HPC-Europa3.

The Project Coordinator will also generally control the overall performance of the project partners and activities through the reports received every six months by the Activity Leaders and approve those reports or undertake corrective actions.

In addition to this dedicated project management team, each partner will identify a person, or a group of persons, who will act as administrative contact points between the PMT and the partners, in order to realize an efficient and reliable management structure.

The Project Management Board (PMB) is the top-level decisional body of the project. It includes the Project Coordinator and one representative per partner. The PMB will meet twice a year in person and of one annual Reporting Meeting and twice a year remotely. More frequent meetings via video and or phone conference will be organized if and when necessary. The main aim of the PMB is to assist the PMT in the overall management, when requested, and to give the project directions and guidelines. The following decisions shall be taken by the PMB:

- Content, finances and intellectual property rights
- Proposals for changes to Annex I of the Grant Agreement with the European Commission to be agreed by the European Commission
- Changes to the Consortium Plan (including the Consortium Budget)
- Withdrawals from the Background included by partners
- Additions to Background excluded
- Additions to Listed Affiliated Entities
The Supervisory Board (SB) will be led by the Project Coordinator and will be formed by the Technical Responsible – CINECA, DEDAGROUP, ARPAE and ARPAP. The SB will be the higher advisory body, providing recommendations on scientific or particular matters and areas of conflict. The SB meetings will be requested by the Project Coordinator or by the PMB in case of emergencies, i.e. unplanned decisions to be taken very quickly when facing unexpected problems, or strategic decisions to be taken on the Project Consortium or activities.

The Activity Leaders (AL) will be responsible for discussing/addressing specific technical matters. A formal communication channel will be used to address functional issues with a quick response time. The ALs will not take executive decisions on strategic issues before contacting the PC-PMT, who will inform the PMB in order to solve the situation.

Responsibilities of AL leaders include:

- Technical co-ordination and supervision of the work related to their assigned work package,
- including the organization of work by some or all of the participants in the work package;
- Reviewing the results of the work carried out in each activity, confirming the suitability of the next stages in the project plan and identifying possible problems;
1.4 Quality Control, Risk Management and IPR

- Ensuring the timely delivery of agreed activities deliverables to high standards.

Tables detailing all members of the different project Boards can be found in Annex IV Project Board Members’ Lists.

3.2. Management Principles and Procedures

The project bodies makes use of a series of instruments to guide and monitor the project activities. This includes an effective internal communication, the organization of meetings and the regular delivery of activity and financial reports (leading to the official progress reports requested according to the CIP regulations).

3.2.1. Project Communication and outputs

The PC is responsible for ensuring the management of communication within the Consortium.

The following rules shall be used:

- **Mistral document repository**: to reduce the volume of e-mails and ensure the ready availability of electronic documentation, the project has created a secure repository, that will propose all project documents and deliverables on a shared secure location. Rather than circulate project deliverables to the Partners by e-mail, the PC will lodge them in this location and inform the partners of their availability. The wiki repository will be used for all dynamic contents being maintained or developed within each project activity: [https://wiki.u-gov.it/confluence/display/MISTRAL/](https://wiki.u-gov.it/confluence/display/MISTRAL/).

- **Meetings**: All presentations and materials provided for the meeting, including minutes, shall be stored in the appropriate agenda page in the Project repository.

- **Presentations, Posters, and publications**: Presentations and/or papers presented at other meetings attended by Mistral participants shall be recorded in the Mistral repository and follow project templates.

- **Mailing Lists**: As the majority of the communication within the project will be electronic, having a coherent record of this is essential. The PC created a list to exchange the emails in the consortium: mistral@list.cineca.it

- **Websites**: [http://www.mistralportal.eu](http://www.mistralportal.eu) is the website for the project.

- **Templates**: All outputs from Mistral, e.g. project deliverable, presentations, and technical reports, should use Mistral templates that are available here: [https://wiki.u-gov.it/confluence/display/MISTRAL](https://wiki.u-gov.it/confluence/display/MISTRAL)
3.2.2. **Project Meetings**
Besides the project meetings, in person and by remote, all the day-by-day communications will be performed by e-mail and/or by phone when necessary. Videoconferences will be organized for the remote meetings and, in addition to the already fixed ones, new ones can be organized in order to solve sudden problems and take rapid decisions that may not wait until the next scheduled meeting.

Updates on the overall evolution and specific actions have already been and will continue to be provided on a regular basis, through phone or online conferences.

Otherwise, two main kinds of meetings will be held, following rules established in the Consortium Agreement:

- **PMB meetings**: at least twice a year, at any time upon written request of the Supervisory Board or 1/3 of the Members of the Project Management Board, scheduled onsite meetings to monitor and review the progress of the project and discuss any and all alterations to the Work Plan. The organization is carried out by the PC, in collaboration with the hosting partner (if relevant). Notice of meetings, location, agenda and working documents will be send to each partner no later than 20 of days (15 calendar days for extraordinary meeting) precised in Consortium Agreement.

- **SB meetings**: The SB will meet at least twice a year, or at any time upon written request of any member of the SB, in meetings organized and chaired by the PC. The PC will notify in a timely fashion to all authorized participants the date, time, agenda and, if these meetings are online meetings, means.

Minutes of every meeting, except the meetings in preparation of the Technical Board, will be circulated to Partners and the PMB via e-mail no later than three weeks after the meeting. The minutes of the meetings will also be added to the secure location of the project website.

3.2.3. **Reporting**

1. Internal interim progress reports must be written by each individual partner on a 6-month basis (two per year). These documents shall be a summary of activities of the previous 6 months as well as a financial interim report. Such reports are required to monitor whether the partner's budget consumption is in line with activities of the covered period and to alert the Coordinator to possible deviations. Instructions, templates and tables to monitor consumed resources and costs have already been
provided by the PC at the start of the project. Partners must complete and return their individual reports within 3 weeks after the end of the interim period. These reports are internal and will not be published. See Annexes V and VI for templates for interim reporting.

Both reports have to be as thorough as possible. Communication from the Project Coordinator on this matter will start approximately one month before the end of the reporting period. Templates for financial statements will be provided earlier.

2. Based on the Grant Agreement one single reporting period from the starting date to the completion date of the action is foreseen and must be submitted by the PC.

As indicated in Article II.23.2 of the GA, within 60 days following the end of the reporting period (i.e. it will be within 60 days from the end of your action), the coordinator of the action will have to submit a request for the payment of the balance. This request shall be accompanied by the following documents:

- a final report on implementation of the action ("final technical report"). This report should be drawn up according to Annex V (technical part) and Annex VI (financial part) of the GA. This report needs to include a confirmation of compliance with the mandatory validation milestones;
- a final financial statement;
- a summary financial statement;
- a certificate on the Financial Statement (CFS), if applicable (see GA Annex VII).

The failure of submission by one of the partners would translate in non-payment by the EC, due to the collective responsibility clause in the contract, and may present a major cash flow problem to the other Mistral partners. Therefore, if any partner fails to submit the Financial Statement in time and this results in non-payment or significant financial penalty to other partners, the PC will invoke the procedures set out in the Consortium Agreement to declare the partner in default and require remedy, which may result in exclusion of the defaulting party and payment of compensation by him.
4. RISK MANAGEMENT

Risk Management is an essential component in the project management of Mistral, whose Work Plan and project governance structure is designed in view of minimizing risks and major bottlenecks in the workflow. A risk management process is used to identify and document the main project risks, and continuously review them against the Work Plan objectives and deliverables, at all stages in the project lifecycle.

Risk is seen as the possibility of exposure to unfavorable circumstances affecting the successful completion of Mistral. To alleviate the possible negative effects of these unforeseen circumstances, Mistral provides process and techniques alternatives for the evaluation and control of potential project risks, with particular focus on diagnosis and pre-emptive action. In the chosen methodology, the risk management process involves two activities:

- Risk Analysis involves identification of specific risks and assessment of their potential importance and estimation of the level of probable failure for the project. In case a risk level may result to tolerance levels above those acceptable, risk analysis defines required actions to address the risk and reduce its potential effects to within acceptable levels.
- Risk Management involves planning of required activities to manage the effects of risk, through re- distribution of resources, the evaluation of the results and making sure that the new action plan is stable and compatible with the project objectives.

4.1. Risk Definition

The project will use the risk definitions detailed as follow:

<table>
<thead>
<tr>
<th>Likelihood</th>
<th>Impact (on quality)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minor</td>
</tr>
<tr>
<td>Unlikely: slight possibility</td>
<td>Low</td>
</tr>
<tr>
<td>Possible: may occur</td>
<td>Low</td>
</tr>
<tr>
<td>Likely: strong possibility</td>
<td>Medium</td>
</tr>
<tr>
<td>Almost Certain: expected</td>
<td>Medium</td>
</tr>
</tbody>
</table>

During the project, the risk management activity will conduct planning, identification, analysis, response planning and control. The objective will be to detect threats and decrease their impact.
likelihood and impact by proper treatment as well as to collect lessons learned from risks occurrence to facilitate continuous learning of project management team.

The project will create a risk registry in partnership with the activity leaders and the PMB. A risk management plan will be created at the start of the project and integrated within D1.4.

### 4.2 Risk Management and Responsibility

<table>
<thead>
<tr>
<th>The Project Coordinator</th>
<th>The Coordinator is the overall Risk Manager and responsible for tracking efforts to monitor eventual risks, combine risk briefings, reports, and documents as delivered by the Activity Leaders and required for project reviews by the EC.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity Leaders</td>
<td>The Activity Leaders of the respective phase are responsible for the Risk Assessment within their Activity, which includes identification, analysis, handling, information (in case of moderate to high risks), monitoring, and tracking efforts to reduce low and moderate risks.</td>
</tr>
<tr>
<td>Task Leaders</td>
<td>The Task Leaders of the respective phase are responsible for the Risk Assessment within their Tasks, which includes identification, analysis, handling, information (in case of moderate to high risks), monitoring, and tracking efforts to reduce low and moderate risks.</td>
</tr>
</tbody>
</table>

### 4.3. Risk Management Process

The risk management process is used to identify and document the main project risks, and continuously review them against the Work Plan objectives, at all stages in the project lifecycle.

Each Activity Leader will identify, on a continuing basis, any risks or problems associated with his Activity and communicate these to the PC. It is the final responsibility of the PC to consider all the options, including those suggested by the Activity Leader, and to make decisions and authorize corrective actions appropriate to the situation, so as to eliminate or at least minimize these identified hazards. In addition, the PC
will take steps where necessary to ensure that the consortium collectively, and all affected members individually, have fully prepared themselves for any contingencies that may arise. Even though the project does not include elements with high risk and at the same time high probability, risk management is considered important for successful completion of the project. The PC will continuously monitor and re-assess project risks. Risk Management focuses on the process of risk monitoring and mitigation through proactive management, which involves the identification of remedial actions for the risks that require active management, segregates those that only require monitoring, and records secondary risks that might arise from implementing the risk mitigation plans.

A list of possible risks that may arise in the course of the project and how the consortium intends to tackle them, when possible with measures already adopted at Month 3, has been created and is illustrated in the table below.

<table>
<thead>
<tr>
<th>Description of possible risk</th>
<th>Impact</th>
<th>Probability of occurrence</th>
<th>Remedial actions</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation of project activities are delayed</td>
<td>Major</td>
<td>Possible</td>
<td>At the beginning of the project a timetable for activity implementation and outputs delivery will be further developed (based on the proposal). This will be used to assess the proceeding of the action, allowing coordinator and partners to monitor the action progress, manage the changes and take on-time corrective measures in case of delays</td>
<td>All</td>
</tr>
<tr>
<td>Performance of one or more partners is poor</td>
<td>Major</td>
<td>Possible</td>
<td>All partners involved in the project have a long a strong collaboration among them and a consolidated experience in EU projects. Risks related to their performance are therefore limited. However, should any problems of this kind arise, corrective measures will be taken, in accordance with the Management Procedures outlined in the proposal</td>
<td>All</td>
</tr>
<tr>
<td>Key person leaves consortium</td>
<td>Major</td>
<td>Possible</td>
<td>If the partner cannot provide a replacement, a re-allocation of responsibilities between partners will be implemented. Hence the Project Coordinator will distribute responsibilities and associated budget among the consortium.</td>
<td>All</td>
</tr>
</tbody>
</table>
### Partner leaves consortium

**Risk:** Major  
**Likelihood:** Unlikely  

Thanks to the combined network of the Mistral consortium, a quick replacement of a participant is possible. A specific section of the consortium agreement deals with these matters and the related procedures. The delay of the project will be kept to a minimum by contributing additional resources to remaining partners.

**Control:** All

### Partners disagree on Intellectual Property Issues

**Risk:** Moderate  
**Likelihood:** Possible  

Risks on disagreements on IPR issues will be controlled by elaborating an IPR plan at the very beginning of the project. Evidence proves that IPR-related disputes are easier to be managed when arisen before the start of commercial exploitation. However, the long-term professional relationship among all the partners in the consortium and their collaboration in other projects (where IPR issues have been treated in-depth) minimize the chance of risk's occurrence.

**Control:** All

### Efforts needed to complete activities have been underestimated

**Risk:** Moderate  
**Likelihood:** Possible  

Project Management has been structured so as to closely monitor resource/budget consumption/take corrective actions wherever necessary, thanks to the attribution of monitoring tasks to a specific person (the Quality Assurance Coordinator).

**Control:** A1

### The scalability of the platform is not adequate to the real number of users (low)

**Risk:** Major  
**Likelihood:** Possible  

This risk can be mitigated estimating during the use cases analysis (A3) the number of users and in general the non-technical requirements; this information will be essential during the design phase.

**Control:** A3, A5

### Limited effectiveness of dissemination actions in fostering the data re-use

**Risk:** Moderate  
**Likelihood:** Possible  

Because of the partnership duties, the Mistral Open Data Portal will represent a solid core for the public data distribution so the dissemination activities will be carried on beyond the project life.

**Control:** A2

### Partners disagree on Open Data Policies

**Risk:** Moderate  
**Likelihood:** Possible  

Risks on disagreements on Open data Policies is low with respect to the Observational data, while maybe possible with respect to the Forecast. This will be controlled by elaborating a plan at the very beginning of the project and engaging the main stakeholders (like Italian Air Force) at national and international level since the beginning. The long-term professional relationship among all the partners in the consortium through LAMI agreement and the presence of ECMWF in the project will be taken into consideration in order to reduce the risk. Support in this sense could
<table>
<thead>
<tr>
<th>Risk Area</th>
<th>Probability</th>
<th>Severity</th>
<th>Description</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability of data are delayed</td>
<td>Moderate</td>
<td>Unlikely</td>
<td>The possibility to have delays in the data availability is low as the Italian observed and forecast weather data will be provided by organizations that forms the consortium: two Regional Agencies (ARPAE and ARPAP) and DPC. The MISTRAL Project consortium can therefore rely on the participation of the main stakeholders who can guarantee the procurement and use of the data. An in-depth data scouting and analysis will be performed in the first 6 months and maintained updated along the entire project to identify access and use constraints. Moreover, special attention will be dedicated to establish a partnership with other important stakeholders, such as the Italian Air Force and the nascent “National weather agency” in order to guarantee correct and trusted data flows.</td>
<td>A4, A3</td>
</tr>
<tr>
<td>Compliance with standards</td>
<td>Moderate</td>
<td>Possible</td>
<td>To ensure the correct management of data and related services the design and implementation of technological components will refer to the Inspire Directive (2007/02 / EC) as well as OGC and ISO19100 standards. In case of data not yet compliant with, it will be evaluated case by case how to harmonize them to the Implementing Rules and Technical Guidelines. Furthermore, project partners will be actively involved in working groups at national (e.g. AgID) and European levels (e.g. ISA2 programme) to fully ensure the compliance of Mistral to new or updated versions of standards.</td>
<td>A4</td>
</tr>
<tr>
<td>Complexity of the tasks defined in Activity 5</td>
<td>Moderate</td>
<td>Possible</td>
<td>There are quite important dependences among the different tasks and subtasks defined in activity 5, due to its complexity. The major risks here are: delays that can affect other tasks and a not proper coordination of the communication among the different players responsible of the single tasks. This activity is under the coordination of CINECA that has already defined three parallel sub-activities. The risk will be controlled establishing after M3 regular meetings every two weeks between the technical provider partners (mainly CINECA, DEDAGROUP), that will assure a proper communication and identification of possible delays and remedial actions.</td>
<td>A5, A3, A4</td>
</tr>
</tbody>
</table>
5. IPR MANAGEMENT

As a general principle, the project will openly make available the content and metadata produced within the project through a “gold” model. This is due to the fact that the consortium strongly encourages other stakeholders in using the material generated by the project, enhancing the replicability of the proposed approach and wider fruition of the technology.

But adopting an open data model means also dealing with potential IPR issues that might arise.

In the scope of the Grant Agreement, particularly its chapter 6, this section outlines the Intellectual Property (IP) in Mistral and defines the Intellectual Property Rights (IPR) Management Plan and strategy with regards to the exploitation and dissemination of the data used and produced within the project.

5.1. Definitions

- **Background**: means information, in hard copy or in electronic form, including, without limitation, documents, drawings, models, designs, data memoranda, tapes, records, and databases developed before or independent of performance under the project that is necessary for the performance of Project Work and exploitation of its results.

- **Foreground**: means the results, including information, materials and knowledge, generated in a given project, whether or not they can be protected. It includes intellectual property rights, similar forms of protection and unprotected know-how. Thus, foreground includes the tangible and intangible results of the project. Results generated outside a project do not constitute foreground.

- **Intellectual Property**: means technical information, Inventions, developments, discoveries, know-how, methods, techniques, formulae, algorithms, data, processes and other proprietary ideas (whether or not patentable or copyrightable). Intellectual Property also includes patent applications, patents, copyrights, trademarks, mask works, trade secrets, and any other legally protectable information, including computer software. It is the rights of the background and the rights of the foreground.

- **Owner**: means a party, public or private, holding legal title to Intellectual Property, consistent with Federal laws and regulations.

- **Beneficiary**: means a Recipient who contributes to the execution of Award Work as part of a Project Team.

- **Project Intellectual Property**: means and includes all Intellectual Property first conceived, discovered, developed, reduced to practice and/or generated in the performance of the project.
5.2. General Strategy for the Management of Intellectual Property Rights

Globally, the rules regarding protection and dissemination of knowledge have been set out in the Consortium Agreement, and is a responsibility of the Management Committee. Whenever possible without compromising IPR of the Consortium members, dissemination of project results will be encouraged through usual means including publication of scientific papers, presentations in conferences, advertising on the project Web site.

Each party shall implement its tasks in accordance with the rules on Intellectual Property Rights defined in the Grant Agreement and in the Consortium Plan and shall bear sole responsibility for ensuring that its acts within the Project do not knowingly infringe third party property rights.

The following chapters summarize the main topics covered by the Consortium Agreement on IPR management strategy and introduces the IPR monitoring strategy.

5.3. Rights and Obligations related to Background

The beneficiaries have identified and agreed in writing to the Background for the action. In the same document, the beneficiaries have also informed each other whether or not Access to specific Background is subject to legal restrictions or limits.

This written agreement on the Background has been attached to the Consortium Agreement and is therefore considered binding for all beneficiaries connected to the project.

5.4. Rights and Obligations related to Results

‘Foreground’ or ‘Results’ means any (tangible or intangible) output of the action such as data, knowledge or information – whatever its form or nature, whether it can be protected or not – that is generated in the action, as well as any rights attached to it, including intellectual property rights.

5.4.1. Ownership of results

All rules, regulations and provisions regarding the ownership of results can be found in Article 8 of the Consortium Agreement.
5.4.2. Protection of Results
Each beneficiary must examine the possibility of protecting its results and must adequately protect them – for an appropriate period and with appropriate territorial coverage – if the results can reasonably be expected to be commercially or industrially exploited and protecting them is possible, reasonable and justified.

When deciding on protection, the beneficiary must consider its own legitimate interests and the legitimate interests of the other beneficiaries.

5.4.3. Dissemination of Results
- Unless it goes against their or any other beneficiary’s legitimate interests, each beneficiary must disseminate its results by disclosing them to the public by appropriate means.
- A beneficiary that intends to disseminate its results must give advance notice to all other beneficiaries of at least 45 days, together with sufficient information on the results it will disseminate.
- Any other beneficiary may object within 30 days of receiving notification, if it can show that its legitimate interests in relation to the results or Background would be significantly harmed. In such cases, the dissemination may not take place unless appropriate steps are taken to safeguard these legitimate interests.
- Each beneficiary must ensure open access to all peer-reviewed scientific publications relating to its results.

5.5. Access Rights
Access rights means rights to use Foreground or Background under the terms and conditions laid down in the Grant Agreement and Consortium Agreement.

All rules, regulations and provisions regarding access rights for Mistral can be found in Article 9 of the Consortium Agreement.

5.6. Transfer and Licensing of Results
All rules, regulations and provisions regarding the transfer of results can be found in Article 8 of the Consortium Agreement.
5.7. Bilateral and Third Party Agreements
Beyond the Consortium Agreement, specific agreements might be necessary, either between project partners or with external third parties. This is due to the considerable variety of intellectual property issues. For this reason, every necessity related to IPR issues that may arise during the Project will be handled by means of bilateral or third party agreements between the interested parties. Each of these bilateral or third party agreements will require the authorisation of the Project management Board and the Project coordinator.

5.8. IPR Monitoring
IPR will be monitored on the Project Management Board level. The Project Management Board will advise on Consortium level decisions about patenting or other protection, and publication. It will also advise the partners on transparent arrangements between owners and would-be exploiters.
Annexes List

ANNEX I: Deliverables Lists
ANNEX II: Template for Deliverables
ANNEX III: Checklist for Deliverables
ANNEX IV: Mistral Boards Members
ANNEX V: Activity Interim Report Template
ANNEX VI: Interim Financial Reporting template