**3.2. Management Structure**

**3.2.2.**

The following table summarizes the milestones, including the work packages to which they are related, due date and means of verification.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Milestone No.** | **Milestone Name** | **Related WP** | **Due Date** | **Means of Verification** |
| 1 | Kick-Off Meeting | 0 | 10/09/18 | Agenda and Meeting Minutes |
| 2 | Project Management Plan | 1 | 5/10/18 | Archived soft copy and management team evaluation meeting |
| 3 | Business Plan | 6 | 5/10/18 | Archived soft copy and business team evaluation meeting |
| 4 | Communication Plan | 7 | 5/10/18 | Archived soft copy and marketing and communication team evaluation meeting |
| 5 | State of the art completion | 3 | 28/12/18 | Archived soft copy and management and technical team evaluation meeting |
| 6 | Payload preliminary design | 4 | 14/06/19 | Technical documents  review and technical team evaluation meeting |
| 7 | Modular System preliminary design | 4 | 6/09/19 | Technical documents review and technical team evaluation meeting |
| 8 | Interaction platform preliminary design | 4 | 29/11/19 | Technical documents review and technical team evaluation meeting |
| 9 | Payload final design | 4 | 12/06/20 | Technical documents review and technical team evaluation meeting |
| 10 | Modular system final design | 4 | 4/09/20 | Technical documents review and technical team evaluation meeting |
| 11 | Interaction platform final design | 4 | 27/11/20 | Technical documents review and technical team evaluation meeting |
| 12 | Prototype manufacturing | 5 | 16/04/21 | Prototype Testing |
| 13 | Individual systems testing | 5 | 9/07/21 | Systems Testing |
| 14 | Full system testing | 5 | 29/10/21 | Full system testing |
| 15 | Project completion | 5 | 21/01/22 | Evaluation of all Technical and non-technical documentation as well as prototype testing reports |

**3.2.3. Quality Management Plan**

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**3.2.4. Risk Management Plan**

A description of the critical risks, related to the successful completion of the project implementation, as well as the mitigation measures are described below.

|  |  |  |  |
| --- | --- | --- | --- |
| **Description of Risk** | **Work package(s) involved** | **Proposed Measure** | **Risk Mitigation** |
| Deliverable delays | 1, 2, 3, 4, 5, 6, 7 | Increase the number of control meetings.  Allocate more human  resources in delayed  tasks. | Dedicate more resources than planned |
| Inaccurate cost forecast | 1, 2 | Highly periodical cost and expense controls. | Consider new  funding sources and  revise the financial  management plan. |
| Lack of communication | 1, 2, 3, 4, 5, 6, 7 | Impart communicative skills courses to team  members. Enhance use of collaborative software. | Periodical meetings and use of collaborative software. |
| Lack of technology  improvement | 4 | Use all resources  needed to guarantee  the expected innovation.  Propose redesigns and alternatives if needed. | Guarantee the development with  thorough search of the actual technology. |
| Lack of access to project needed information | 1, 2, 3, 4, 5, 6, 7 | Maintain contact with scientific and  technological centres to be updated with the last technological  improvements. | A previous accurate research is  needed before the  development of the  project. |
| Low team motivation | 1, 2, 3, 4, 5, 6, 7 | Interview team members to know their level of satisfaction with their work and request for their suggestions to improve their motivation. | Personal control and team building projects. |
| Unsuccessful quality control | 1, 2, 3, 4, 5, 6, 7 | Use higher qualified  personnel, and purchase better quality control resources. | Improve or increase the quality controls. |
| Conflicts between members | 1, 2, 3, 4, 5, 6, 7 | Encourage communication among team members. Look for  possible causes of  conflicts. Establish  teambuilding activities. | Personal conflict resolution meetings. |
| Infeasible design | 4 | Follow the specified  design standards. Stick to the available  technology. | Periodical reviews with experts and  managers. |
| Technology  components with  security vulnerabilities | 3, 4, 5 | Establish regular contact with outsourced companies responsible for technological safety. | Check for possible security problems during development through specialized companies. |
| Organization issues | 1, 2, 3, 4, 5, 6, 7 | Establish weekly  meetings between the  department responsibles.  Enhance the use of  organization software. | Ask for help from an external company specialized in project management. |
| Stakeholder desertion | 1, 2, 3, 4, 5, 6 | An in-depth research of alternatives to the  current members would allow faster solutions. | Transfer the  responsibilities to  another stakeholder or contract a new one. |
| Competitors appearance | 6, 7 | Improve the image that HIRO gives to the European Union. More efficient use of resources. | Improvement of the  quality/price ratio of the service. |
| Delay in external deliverables | 1, 2, 3, 4, 5, 6, 7 | Buy the resources in  advance and keep them in stock. | Control the delivery schedules and change provider if necessary. |
| Economical market  issues | 1, 2, 3, 4, 5, 6, 7 | Reconsider budget  estimations with market variations. | Control cost progress due to external changes throughout the project. |
| Components or raw  material quality | 4, 5 | Establish quality  inspections of the  acquired materials. | Have exhaustive and regular quality controls to avoid  problems in components in the final test. |