**Name of the project: BASKET+**

**Table 3.1c: List of Deliverables[[1]](#footnote-2)**

Only include deliverables that you consider essential for effective project monitoring.

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| **Number** | **Deliverable name** | **Short description** | **Work package number** | **Short name of lead participant** | **Type** | **Dissemination level** | **Delivery date**  **(in months)** |
| 1.1 | Development & Feasibility | Design and tests of the programmable logic on the AMD board.  Training and tests of artificial neural networks using simulated data.  Evaluation of expected performance. | WP1 | IM | OTHER | PU | 6 |
| 1.2 | Data management | Estimation of the expected data volumes and rates.  Purchase of corresponding CPU and storage systems.  Data publication strategy. | WP1 | IM | DMP | PU | 6 |
| 1.3 | Dissemination | Publication of feasibility studies.  Conference presentations discussing the application the present methodology to the P2 experiment *per se* and to the field of hadron physics at large. | WP1 | IM | DEC | PU | 6 |
| 2.1 | Prototype | Construction of a test bench with electronics pulses injected to the front end boards, according to expected physics distributions.  Transmission to and processing by the AMD back-end.  Evaluation of performance in realistic conditions. Determination of the limits of the system (data flow and processing time) and validation for the experiment. | WP2 | IM | DEM | PU | 12 |
| 3.1 | Scientific exploitation | Implementation of BASKET+ within the P2/BASKET experiment.  Scientific data acquisition and processing. | WP3 | MB | DATA | PU | 24 |
| 3.2 | Report and publication | Data analysis and scientific results.  Presentation of results at internation conferences. Final publication. | WP3 | MB | R | PU | 36 |

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| **KEY**  Deliverable numbers in order of delivery dates. Please use the numbering convention <WP number>.<number of deliverable within that WP>.  For example, deliverable 4.2 would be the second deliverable from work package 4.  **Type:**  Use one of the following codes:  R: Document, report (excluding the periodic and final reports)  DEM: Demonstrator, pilot, prototype, plan designs  DEC: Websites, patents filing, press & media actions, videos, etc.  DATA: Data sets, microdata, etc.  DMP: Data management plan  ETHICS: Deliverables related to ethics issues.  SECURITY: Deliverables related to security issues  OTHER: Software, technical diagram, algorithms, models, etc.  **Dissemination level:**  Use one of the following codes:  PU – Public, fully open, e.g. web (Deliverables flagged as public will be automatically published in CORDIS project’s page)  SEN – Sensitive, limited under the conditions of the Grant Agreement  Classified R-UE/EU-R – EU RESTRICTED under the Commission Decision No2015/444  Classified C-UE/EU-C – EU CONFIDENTIAL under the Commission Decision No2015/444  Classified S-UE/EU-S – EU SECRET under the Commission Decision No2015/444  **Delivery date**  Measured in months from the project start date (month 1) |

**Table 3.1d: List of milestones**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Milestone number** | **Milestone name** | **Related work package(s)** | **Due date (in month)** | **Means of verification** |
| 1 | Preparation | WP1 | 6 | Documentation |
| 2 | Prototyping | WP2 | 12 | Documentation |
| 3 | Exploitation | WP3 | 24 | Data availability |
| 4 | Conclusions | WP3 | 36 | Publication |

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| **KEY**  **Due date**  Measured in months from the project start date (month 1)  **Means of verification**  Show how you will confirm that the milestone has been attained. Refer to indicators if appropriate. For example: a laboratory prototype that is ‘up and running’; software released and validated by a user group; field survey complete and data quality validated. |

**Table 3.1e: Critical risks for implementation** #@RSK-MGT-RM@#

|  |  |  |
| --- | --- | --- |
| **Description of risk (indicate level of (i) likelihood, and (ii) severity: Low/Medium/High)** | **Work package(s) involved** | **Proposed risk-mitigation measures** |
| Insufficient performance of AMD board (low data throughput, slow processing time, ...)  Likelihood: Low (board is well documented and understood)  Severity: Medium | 2.1 | Alternative boards exist with similar design performance, and can be considered in case of failure. |
| Backgrounds higher than expected, reducing the algorithmic performance of the AMD board. The uncertainty in the expected background rates in P2 is within a factor of two.  Likelihood: Medium  Severity: Low | 3.1 | Mitigation through runs at reduced beam intensity. This restores the nominal performance, but costs a factor of two in data acquisition time, |

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| **Definition critical risk:**  A critical risk is a plausible event or issue that could have a high adverse impact on the ability of the project to achieve its objectives.  **Level of likelihood to occur: Low/medium/high**  The likelihood is the estimated probability that the risk will materialise even after taking account of the mitigating measures put in place.  **Level of severity: Low/medium/high**  The relative seriousness of the risk and the significance of its effect. |

1. You must include a data management plan (DMP) and a plan for dissemination and exploitation including communication activities as distinct deliverables within the first 6 months of the project. The DMP will evolve during the lifetime of the project in order to present the status of the project's reflections on data management. A template for such a plan is available in the [Online Manual](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/guidance/om_en.pdf) on the Funding & Tenders Portal. [↑](#footnote-ref-2)