**Name of the project:**

**Precision Research on Origins of Drell-Yan: understanding the fundamental particle interaction process ranging from pQCD to non-perturbative regime, from LHC-to-SPS-to-SIS**

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

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

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Number** | **Deliverable name** | **Short description** | **Work package number** | **Short name of lead participant** | **Type** | **Dissemination level** | **Delivery date**  **(in months)** |
| 1 | THEO I | Theoretical limits of perturbative regime |  | Klasen | R, OTHER, DEC | PU | 24 |
| 2 | THEO II | Differential Drell-Yan production from LHC down to SPS |  | Bozzi | R, DEC, DATA | PU | 18 |
| 3 | EXP I | Methods for separation of thermal and non-equilibrium dilepton production at low collision energy |  | Galatyuk | R, DEC, DATA | PU | 36 |
| 4 | EXP II | Methods for separation of thermal and non-equilibrium dilepton production at high collision energy |  | Winn | R, DEC, DATA | 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 | Workshop I | ALL | 12 | Presentation of all concerned projects |
| 2 | Workshop II | ALL | 24 | Presentation of all concerned projects |
| 3 | Publication | Theory | 36 | Submission to journal |
| 4 | Publication | Methodology | 36 | Submission to journal |

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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** |
| Ansatz dependence of limit of perturbative theory and of non-perturbative theory used instead:  Likelihood: high  Severity: Low | Theo I | Precise specification of Ansatz  Variation of assumptions and provide extreme cases |
| Incapacity to provide tooling applicable to full phase space over collision energy and over mass of multi-differential calculations of Drell-Yan at higher order due to numerical or other technical problems:  Likelihood: low  Severity: High | Theo II | Involvement of world experts on perturbative QCD calculations over broad range of kinematics and with experience on numerical implementations |
| Incapacity to develop analysis techniques due to missing adapted simulation on physics process side:  Likelihood: low  Severity: High |  | Main inputs of experimental studies are the outcomes of the theoretical work packages |
| Incapacity to develop analysis techniques due to missing adapted simulation on detector side or sufficient statistics in a given already existing experiment:  Likelihood: medium  Severity: medium |  | An important fraction of the studies can be pursued already based on simplified simulation, in particular with respect to the discrimination between thermal and non-equilibrium radiation. |

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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-1)