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Annex 13 Scenarios for Lot 2

Procurement Procedure EMA/2012/13/ICT External Service Providers for
Software Applications: on-line analytical processing systems

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1. About this document

This document describes the pricing scenarios for Lot 2 of open invitation to tender no. EMA/2012/13/ICT for external service providers for software applications: on-line analytical processing systems.

Although the scenarios below are based on genuine EMA situations, they have, to all intents and purposes, to be considered fictional.

The replies by the Tenderer on the scenarios will be used solely for evaluation purposes. The Tenderer will not be expected to actually provide the systems or services that are the subject of these scenarios.

Additional information on projects referred to in the documents referenced in this document and ICT systems hosted at the EMA can be found in section 3.2 of **EMA/2012/13/ICT Draft Technical Specifications**.

1.1. Glossary

Please refer to the glossary included in the technical specifications document.

2. Scenario 1: Inception and elaboration phase of on-line analytical processing information systems

2.1. Background

The EudraCT OLTP system has undergone changes in order to replace the storage mechanism from the current XML-based storage system to an Oracle relational database storage system. In order to incorporate new data structures and new changes in the transactional system, the current data warehouse needs to be modified or rebuilt.

The EudraCT on line analytical processing system project is about to start. The project is currently in the pre-inception phase. Please refer to the data model of the OLTP system *in Annex12a Scenario for lot 2 – scenario 1*. The Project Board has mandated the Project Manager to contract an external service provider to perform the inception and elaboration phases in a fixed price or quoted time-and-materials regime.

2.2. Objective

The objective of the project is to build a complete DWH solution which will be capable of interacting with the new version of the EudraCT source system (EudraCT version 8.0);

The scope of this scenario is limited to the inception and elaboration phases of this project. The expected deliverables for the two phases that are the subject of this scenario (i.e. inception and elaboration) are, compliance with RUP@EMA v2.0:

- Vision document
- System architecture document
- High-level system use cases describing the complete system to be built.
- Business view of data via:
 - UML class data models or,

- Entity relationship diagrams (ERDs)
- Descriptions of the reports to be built in the construction phase.
- Detailed plan to perform the construction and transition phases
- Risk register

The quality of the artefacts needs to be such that they can be used as supporting documents for an invitation to tender to perform the construction and transition phases. Tenderers should note that they are not required to provide copies of the artefacts themselves, but to provide total price for the scenario.

The following parameters apply:

- The existing DWH system is dependent on a source system which is undergoing drastic changes (XML to relational Oracle) in the next few months. This will render the existing DWH obsolete.
- Preliminary estimates indicate that the complexity of the system is such that there will be a need of a minimum of 50 reports.
- A preliminary stakeholder analysis indicates that there can be up to 150 users using the system at the same time.
- The specification of each report will contain and is not limited to:
 - Report summary information
 - Report filters
 - Report display
 - Report criteria, sorting and sub-totals

- The inception and elaboration phases need to be completed in three months and a half

The pricing for this scenario needs to be provided by completing the questionnaire in EMA/2012/13/ICT **Technical Specifications - Annex 3.**

3. Scenario 2: Construction phase of on-line analytical processing information systems

3.1. Background

The Data Warehouse project has completed the inception and elaboration phases. All RUP@EMA artefacts have been produced and signed off by the Project Board. The Project Board has mandated the Project Manager to contract an external service provider to develop the system in a fixed price or quoted time-and-materials regime.

Part of the documentation from the elaboration phase is the referenced document *Annex 12b Scenario for Lot 2 – Scenario 2*. This is an Excel document containing the following information:

Worksheet	Description
Reporting model	Entities and Attributes of the required target data model for SIAMED Data Mart
BI presentation layer	Source to target Data Mapping - ETL transformations rules
Enumeration	Dictionaries for static data
SII data Model	Data model of the source system - High Level ERD

3.2. Objective

The objective of this scenario is the construction of a data mart for medicines authorisation

The quality of the system needs to be such that it can be presented for user acceptance testing and will successfully pass user acceptance testing.

The scope of this construction is:

- To implement the data model of the data mart as specified in the *Reporting Model* worksheet.
- To develop an ETL process to populate the data structures using the source to target data mapping as specified in the *Bi presentation Layer* worksheet; there is only one source system.
- To develop 30 reports of different complexity as predefined reports
 - 10 simple reports. The complexity of these reports is of the level of, for example, line listing reports.
 - 10 medium complexity reports. The complexity of these reports is of the level of, for example, statistical reports as summary of the line listing reports with graphical representation.
 - 5 complex reports: management dashboards with statistical reports and KPIs.
 - 5 documents with a specific format containing static text and data fields from the data mart.
- BI Layer ready for ad-hoc reporting.

Out of scope for this construction is:

- No data quality activity should be included in the cost estimate.
- Software products to be used in the implementation should not be included in the cost estimate. Implementation will be done with the products that already are in use in the Agency.
- All activities to prepare the system for user acceptance testing, including installation at EMA premises, and all activities during and after user acceptance testing are out of the scope of the scenario and hence should not be included in the cost estimate.

The expected deliverables are:

- Technical analysis and design documentation as support of the delivered solution such as:
 - Architecture document;
 - Physical data model;

- ETL design documents;
- Reporting design documents;
- Testing strategy;
- Administration procedures and scripts.
- Deployment guide and scripts for the deployment of the solution.
- Code and scripts for all objects developed during the projects.
- Required predefined reports and ad-hoc reporting access for the business.
- Training for end-users and IT using train-the-trainer approach.

The pricing for this scenario needs to be provided by completing the questionnaire in EMA/2012/13/ICT
Technical Specifications - Annex 3.

4. Scenario 3: Study

4.1. Background

The EMA BI functionalities allow end users to create their own reports, which provide the end user independence and versatility to cope with their own necessities.

Up to now, and during the learning curve in the use of EMA BI tools, end-users have been advised to create simple reports and handover the complex ones to IT developers who have the technical knowledge, background, expertise and experience to devise the best solution and/or approach to the problem.

Currently, some users are more advanced and have more expertise than others and those are aware of the range of easy-to-use and intuitive end-user tools such as Interactive Dashboards, advanced reporting and publishing, full ad-hoc analysis over the Web, proactive detection and alerts, mobile analytics, Microsoft Office integration, Web Services and business process integration, etc. These advanced users would like to make use of these features.

On the other hand, a considerable amount of the defects raised on reports created by users are due to a lack of expertise on BI. This provokes a considerable cost on support.

4.2. Objective

The purpose of this study is to investigate the appropriateness of creation and publication of BI reports by end users.

The current landscape at the EMA is:

- EudraVigilance Veterinary data warehouse
 - BI tool: MicroStrategy v9.2.1.m
 - Number of users: In the region of 200 users
 - Number of reports: 34
 - Status: in production and in evolving maintenance mode
- EudraVigilance Human data warehouse

- BI tool: MicroStrategy v9.2.1.m
- Number of users: In the region of 500 users
- Number of reports: 189
- Status: in production and in evolving maintenance mode
- EudraCT data warehouse
 - BI tool: OBIEE version 11.1.1.6.0
 - Number of users: In the region of 150 users
 - Number of reports: 80

The user Community for most BI functionalities is based mainly at the EMA but also at the National Competent Authorities in the Member States.

The expected deliverables are:

- Report of the analysis carried out: Interviews carried out, system and project studies, factors taken into consideration, conclusions in the different areas, savings to be expected, non-quantifiable advantages, etc.
- A conclusive recommendation on which users should create their own reports.
- A support model of BI development for power users
- An impact analysis on system performance
- A thorough end-user procedure on how to create and share reports
- A clear end-user security model on how to create access and manage reports.
- A strategy on how to promote self-support within the user community.

The timeline by which this study is to be delivered is set to three months

The pricing for this scenario needs to be provided by completing the questionnaire in EMA/2012/13/ICT
Technical Specifications - Annex 3.

Referenced Documents

Document	Description
Annex 12a Scenario for lot 2 – Scenario 1	High level description of the EudraCT system data model
Annex 12b Scenario for lot 2 – Scenario 2	Excel document containing information about the reporting model, BI presentation layer, Enumeration and SII data Model