



Request for proposal to develop Data Delivery Module for the National Geological Survey (NGS)

Background

The European Bank for Reconstruction and Development (EBRD) is supporting the Ministry of Mining and Heavy Industry (MMHI) and the National Geological Survey (NGS) of Mongolia to establish an integrated National Geoscience Database (NGDB) through the “Mongolia-Transparency in Extractives-National Geoscience Database” (NGDB) project.

The NGDB project aims at contributing to an increased accessibility, volume and spatial coverage of geoscientific data, in order to attract investment in the sector. One of the project’s activities is to support NGS to establish a Data Delivery Module (DDM). This new module, as integrated part of the NGDB, shall allow the web-based dissemination of geological products such as digital documents, data and maps to registered users, partly against the payment of a fee. The documents are stored in a Document Management System (DMS) and can be searched online through MonGeoCat; other products are prepared by NGS officers as zipped data packages and further handled by the DDM.

Adam Smith International, implementor of the NGDB project, is looking to hire the services of an experienced software developer company for developing and implementing the DDM. The company should meet the following requirements:

- Ample record and references of developing comprehensive web systems over the past years, preferably with online sales components and seamless integration with existing systems.
- Experience in working with governmental agencies.
- Proven financial stability.
- Good English language skills of key staffs.
- Willingness to implement the software development following the “Agile approach” principles. Especially: early and iterative delivery, testing, revision and acceptance of prototypes, and close cooperation between developers and the customer.

Key characteristics of the system to be developed:

- The system shall be web-based, easy to use, and with a look-and-feel that integrates with existing NGDB applications.
- A homepage shall be the central access point of the system for all users, and provide a) information on the DDM, b) registration functionality for new customers, and c) links to MonGeoCat and some of the modules of the DDM.
- Six functional modules are planned:
 1. Publisher Component: to be used by NGS staff for loading digital products, storing them in the DDM Product Repository, entering additional information for each product (such as: title, brief description, metadata, usage restrictions, thumbnail, prices for different user types), easy loading of this information to the Offerings Portal, and editing and removing contents already loaded to the Offerings Portal.

2. Offerings Portal: open portal for web users for finding, reviewing and selecting data and map products for subsequent purchase. The portal shall be lucid, have an appealing design, users will be able to configure a product content specific to their needs.
 3. Shopping Component: virtual shopping basket allowing web users to log in, add products from the Offerings Portal and from MonGeoCat, going back and forth between these components, save wish lists, see previous purchases, check out to proceed with online payment or direct download for free products, and provide invoices after successful payment. Users should be able to download purchased products again within 24 hours as a fallback in case the initial download failed.
 4. Online Payment Component: manages the credit card payment in coordination with the respective applications and interfaces provided by a suitable bank or service provider, and authorizes product download after successful payment.
 5. Product Download Handler: makes the purchased products available to the user for downloading either from the Product Repository, or from the DMS (required iView functionality for accessing documents is already available and can be triggered through an encrypted URL).
 6. Management Component: to be used by the system administrator and other NGS staff for the management of both external and internal users, including registration requests. The component shall include a dashboard with information on but not limited to users and their origin, products added to their shopping cart, purchased products, revenue, most demanded products, and most active users over selectable time frames; furthermore, it should produce standard reports on the mentioned issues.
- The system shall work with two data repositories:
 - Product Repository: a structured file system for storing the data and map products.
 - Data Repository: a database for storing user information, sales data, and the above-mentioned complementary product data.
 - The DDM shall interact with the following systems that are already established:
 - MonGeoCat: a web catalogue system for finding geological documents through spatial and metadata searches. Note that smaller adjustments to this system will be necessary to push IDs and titles of documents selected by the user to the Shopping Component; access to the source code will be provided to the developer company.
 - iGuana: a DMS that allows the retrieval of documents from the respective repository through the iView software, which is triggered by encrypted URLs to be generated by the Product Download Handler (required routines are available).
 - The interfaces for all outside-facing portals must be bilingual (changeable, Mongolian and English); bilingual interfaces for the internal components would be an advantage.

Notes:

- The developer company is not required to purchase any hardware or software.
- Required agreements with the bank or credit card service provider will be made by the NGS.

Further services to be provided:

- Delivery of the documented source code to the customer, including all rights for usage and further development.
- Training and guidance of NGS staff and system administrators.
- Delivery of user manuals (Mongolian language) and complete technical system documentation including ERDs in both Mongolian and English languages.
- Bug fixing and maintenance: one year after system implementation and acceptance.
- Presentation and discussion of work progress to the NGS on a regular basis.

- Reporting in Mongolian and English language (inception, mid-term and final reports).

Time frame and milestones:

- A first prototype of the Publisher Component shall be presented within one month after contract signing.
- Fully functional implemented system and training: within four months after contract signing.

Requirements for the proposal:

Interested companies are invited to submit a proposal and cost estimate in which they outline their relevant technical and commercial capability and experience in Mongolian and English. The proposal should include:

- A brief introduction to the company that includes the number of years in operation, and staff size.
- A detailed corporate track record, with relevant experience over the past 5 years. References to flagship projects shall be given, including customer contacts,
- CVs of proposed key technical staff for the services.
- Approach for developing the system, including basic architecture and programming languages.
- Detailed information on programming languages they are intending to use.
- Cost estimate (to be valid at least for one month).

For more clarifications about technical requirements, please contact **Otgonbaatar@ngdb.mn**.

The complete proposal should be submitted to **Oyunbileg@amep.mn** in English and Mongolian. The deadline for submission is **14 February, 2021 at 18:00 PM**, Ulaanbaatar time (GMT + 8).

Quotations received after this date will not be considered and only shortlisted companies will be contacted.