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BASQUE RESEARCH
& TECHNOLOGY ALLIANCE

Call for tenders

Sukarrieta, 3 of june, 2020

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1. AIM

The AZTI Foundation announces the opening of a public tendering procedure for **“the development of an R Shiny APP for data and models output visualization to inform and support marine spatial management”**

2. DURATION OF THE SERVICE

The project shall be carried out within a maximum period of 4 months as from the date the contract is signed.

3. FINANCIAL OFFER

The maximum financial offer that shall be accepted for this tender is **six thousand three hundred and fifty euros (€6,350)**, exclusive of taxes.

The service shall be billed on conclusion, and the invoice shall be paid 30 days after its date of issue.

4. CRITERIA FOR EVALUATING PROPOSALS

The evaluation of the proposals received will be based on the following criteria:

Offer price	50%
Technical adjustment	35%
Improvements	10%
CSR policies	5%





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5. SUBMISSION OF PROPOSALS

Bidders can submit their proposals for the attention of Irati Velez to the e-mail address ivelez@azti.es, and at any of the AZTI centres, from the time this notice is published on the AZTI Foundation website **until 12 noon of this coming 22 June 2020**.

Bidders may contact the following address for any further technical information:

AZTI

Att. Ibon Galparsoro

Tel. 34 667 174 450

E-mail: igalparsoro@azti.es

6. AWARDING

Following receipt of the bids by the indicated submission date, the result of the tender shall be posted on the AZTI Foundation website within 15 business days.

7. PROCUREMENT CONDITIONS

- Throughout the duration of the service relationship with AZTI, the entity selected must comply with current regulations governing labour, social security, and occupational health and safety matters. The entity shall also, if fitting, have to carry out the coordination of business activities in accordance with (Spanish) RD 171/2004, per established procedure and specifications (available at <http://www.azti.es/es/coordinacion-de-actividades-empresariales/>).
- Before formalising the contract, the entity selected must, in any case and irrespective of any other documentation, submit a certificate proving that it is up-to-date with respect to its tax and social security obligations.
- The selected entity must submit the documentation needed to formalise the contract no more than 20 days after the date it is awarded. Any further questions can be consulted in the Internal Procurement Rules posted on www.azti.es



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- Companies submitting bids must present a bank title certificate issued by the respective institution, indicating the number of the bank account we shall use to pay for the services rendered or materials acquired.
- Beyond the technical and administrative conditions, AZTI shall favourably evaluate those suppliers who demonstrate that they maintain Quality, Health and Safety, Environmental, and Sustainable Mobility policies, as well as Corporate Social Responsibility policies.

The supplier shall include in the respective proposal any documents or records that enable those policies to be verified (quality or environmental certificates; documentation on actions relating to social responsibility issues, etc).

8. GENERAL DATA PROTECTION REGULATION

Responsible entity – Identity: FUNDACION AZTI - AZTI FUNDAZIOA – Tax No: G48939508. Postal Address: TXATXARRAMENDI UGARTEA Z/G SUKARRIETA (BIZKAIA). Telephone: 946574000. E-mail: lopd@azti.es.

“At the AZTI FOUNDATION, we process the information you provide in order to respond to your request and invoice the services, and also to maintain business relations. The legal basis for processing your personal data is our legitimate interest in maintaining business relations and to carry out the provision of services. Such data are those strictly necessary for that purpose. The data supplied are kept for as long as the business relationship is maintained, or for the years needed to fulfil the legal obligations and, after the conclusion of relationship, to the extent to which responsibilities might arise. The data are only ceded to third parties in those cases where there is a legal obligation, or to suppliers of technical and IT services, and auditing. Under no circumstances shall international transfers of your personal data be carried out. You have the right to obtain confirmation about whether we, at the AZTI Foundation (FUNDACION AZTI – AZTI FUNDAZIOA), are processing your personal data. You, therefore, are entitled to access your personal data, rectify imprecise data, or request their elimination, when the data are no longer necessary, as well as to exercise your right of opposition, limitation or portability of your data, per the terms envisaged in applicable regulations relating to data protection, by means of written communication to the address indicated above. You may also present a claim before the competent control authority.”

9. TECHNICAL REQUISITES

Goals of the service

To provide a web interface to support and inform managers and decision-makers in the adoption best management measures. The web tool should give them the capacity of visualization of relevant information of marine environmental and maritime activities, and the interaction with Bayesian Belief models for the assessment of different management alternatives (scenarios) consequences. In order to promote its use by the managers and decision-makers, the web interface should be easy to use and simple.

Specific functionalities:

- Home page
- User sign-up and login; and the possibility of user management by AZTI
- Data uploading and visualization. GIS (raster and vectorial) as well as tabular data. AZTI shall provide the background data layers
- Interaction with Bayesian Belief Network (BBN) models.
- Exploration of spatial models elaborated from BBNs.
- Visualization of outcomes of the interaction with BBNs. Map and graph visualization

Purpose of collaboration

- Contribution to the development of a Shiny web application (VAPEM tool). VAPEM tool should show many functionalities for data visualization and exploration, as well as for BBN exploration and output visualization.
- The present collaboration should be focused on the development of the interface and the design to be used by end-users with limited technical skills. Thus, the tool should be designed for the exploration and visualization of different scenarios derived from the implementation of BBNs.
- Data processing, modelling and related visualization, by providing a working set of R functions activated by a set of widgets inside a user web interface.
- To provide technical support and development ideas on such application. This includes the proposal of external development of certain functionalities that could be proposed in the framework of this collaboration, but that should be developed by another programmer.



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Description

The **user interface** is in the form of a dashboard, i.e., a single full screen view with several layers, but no or minimal scrolling required.

Broadly, the modelling section of the app shall contain the following features:

DATA PROCESSING:

1. To help the user understand the app, only if not provided elsewhere, an **opening page** with instructions, info, etc., to be compiled mainly by AZTI.
2. To allow the user focus on the conceptual model and its features, a page for selection of pre-existing **models** and interactive exploration without spatial components.
3. Optionally, a **preview** page to browse input spatial data linking to the BBN (optional as they might be available in the main output viewer already, and assuming links to the BBN nodes are hardcoded).

MODELLING:

4. **Pre-made scenarios to select** and tweak (e.g., development first, conservation first, etc.), rather than the current blank setting on startup, each with a bit of key info.
5. Enough **guidance to enable users to build their own scenario**. So basically, a more friendly and interesting way to set evidence, than the present version of the tool.
6. A set of **questions** of interest to select from, followed by a questionnaire with multiple selections (i.e., decisions) **that ends with a given model setting** -> output (again, engage the user and help to set evidence).
7. A page to allow users to **set model parameters** as inputs and desired outputs, followed by the **spatially explicit query** of the network. Download options are provided here if not elsewhere. Also, output maps may be interesting here rather than in a separate view, as users may test different model parameterizations and want to see results immediately, without switching views.
8. An interactive section able to communicate uncertainty and sensitivity from input variables; this is something that competent policy makers and managers value a lot.

VISUALIZATION:

9. A page dedicated to **output maps**, with options to download data if not provided elsewhere.



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10. A page dedicated to basic **output analysis**, containing summary statistics of output and further analysis.

DATA MANAGEMENT:

11. A system to record user selections and preferences. If there are enough unique users, this may be a precious source of data for both practical and academic work.

CODE

12. All R codes shall be stored in a GitHub project.