

**Pau Costa Foundation is subcontracting the conversion of CLASS model into a web browser, in the framework of the EWED project.  
Call ref. EWED S3.2**

In the framework of the project EWED (Extreme Wildfire Events Data Hub for Improved Decision Making), funded by European Union Civil Protection, the Pau Costa Foundation is subcontracting the design of a data portal with capacity to visualize the atmospheric and fire measurements and modelling results obtained along and after the EWED project (Subcontracting 3.1 of the project).

EWED project will set up a testbed and open platform to advance in research and prepare European emergency response systems for extreme wildfires.

For two years, the consortium will gather fire and atmosphere data from extreme wildfire behavior that has the potential to become extreme events in European countries (Norway, Spain, Greece, Netherlands and others). These data will be used to populate a novel Open Data Portal. The complex processes involved will be adjusted based on Large eddy simulation (LES). The results will be used to improve a land-atmosphere coupled model (CLASS) to learn and improve the understanding of the atmosphere-fire feedback during extreme fire events. The resulting model and data portal will allow real-time analysis of ongoing extreme fire events with atmosphere coupling.

For more information: <https://civil-protection-knowledge-network.europa.eu/projects/ewed>

Purpose of the contract

The purpose of the subcontracting is the conversion of the conceptual CLASS model and its graphical user interface ([classmodel.github.io](https://github.com/classmodel/classmodel)) into a version that entirely runs in a web browser.

The end user should be able to provide input settings to the model via an intuitive interface and should have the possibilities to produce graphs of the evolution of key atmospheric variables, in which multiple runs of the model can be compared.

The end users of this product will be both the scientific as well as the operational firefighting community.

The tasks consist of:

- 1) the porting of the actual model code (Python / C++) to language that is convenient for a browser version (for instance JavaScript or web assembly)
- 2) the design of an intuitive interface for end users including fast plotting functionality

The software should be delivered so that researchers can maintain the tool in the future by themselves.

Duration of the contract and milestones

Start: 1<sup>st</sup> of April 2024

Launch of the initial prototype: 25<sup>th</sup> June 2024

Launch of the advanced prototype: 15<sup>th</sup> September 2025

All tasks must be completed before the end of December 2025.

#### Requirements of the contractor

1. Experience in design of research software.
2. Experience and affinity with research in the weather and climate field.
3. Experience in the design of interactive web pages.

The requirements will be proven by providing certificates of good execution of previous contracts issued by the contracting party, detailing the work performed, its calendar and its cost.

#### Estimated value

The estimated value of the subcontract is 55,000.00€ (VAT excluded).

#### Evaluation criteria

##### **Technical proposal: up to 70 points**

- Description of the contractor and proposed methodology: 43 points
- Demonstrated experience in design of research software:
  - 1 to 4 projects: 3 points
  - 5 to 9 projects: 6 points
  - More than 10 projects: 9 points
- Demonstrated experience in research in the weather and climate field:
  - 1 to 4 projects: 3 points
  - 5 to 9 projects: 6 points
  - More than 10 projects: 9 points
- Demonstrated experience in the design of interactive web pages:
  - 1 to 4 projects: 3 points
  - 5 to 9 projects: 6 points
  - More than 10 projects: 9 points

##### **Economic offer: up to 30 points**

To obtain the economic score, the offers will be evaluated so that the most economical one, and only that one, will be assigned 30 points, the maximum score. All offers will be evaluated with the score obtained using the following arithmetic expression:

$$(30 \times \text{price of the lowest offer}) / \text{price of the offer to be scored}$$

##### **Maximum score: 100 points**

In the event that two or more candidates attain the same highest score, a committee will select the candidate to be awarded based on the merits expressed in the technical proposal. This committee will be comprised of:

- 1 representative of the Pau Costa Foundation

- 1 representative of the Catalan Fire and Rescue Service
- 1 representative of the University of Wageningen

#### Subcontracting

The awarded contractor cannot subcontract any of the tasks described.

#### Are you interested?

Those interested must send an email to [info@paucostafoundation.org](mailto:info@paucostafoundation.org) (subject "Subcontracting EWED S3.1) **before 17<sup>st</sup> March at 11:00 CET**, with the following documents:

- Technical proposal
- Annex 1: Responsible declaration
- Annex 2: Technical solvency
- Supporting documentation of technical solvency
- Annex 3: Economic offer

#### Protection of personal data

In compliance with the provisions of EU Regulation 2016/679 of the European Parliament and of the Council, of April 27, 2016 (RGPD), as well as Organic Law 3/2018, of December 5, on the protection of natural persons with regard to the processing of personal data and on the free movement of such data (LOPDGDD), the personal data entered in this selection and those necessary for its fulfilment, will be incorporated and will be processed by the Pau Costa Foundation, in the ownership file of this entity intended for the selection of the contractor.

The data will not be transferred to third parties and the Foundation will keep your data during the legally established period to respond to any claims.

Candidates may exercise their rights of access, rectification, opposition, limitation, portability or cancellation of their personal data, by communicating this in writing to the email address [info@paucostafoundation.org](mailto:info@paucostafoundation.org).

More information about the privacy policy can be found on the website <https://www.paucostafoundation.org/en/privacy-policy/>.