



Request for quotation

Satellite imagery-based heat stress analysis to be carried out as part of the TopHeAT-HU project

Energie Agentur Steiermark gGmbH is requesting quotes **for the performance of satellite-based heat stress analysis in the Austrian-Hungarian border region** as part of the Interreg AT-HU "TopHeAT-HU" project. The aim of the project is to support climate adaptation and decision-making at the municipal level in order to adapt to heat waves, with a particular focus on the planning and prioritisation of nature-based solutions. The results of the analysis will form the basis of the project's interactive map-based decision support platform and contribute to the targeted preparation of nature-based pilot interventions and high-resolution surveys.

The procedure will be conducted in accordance with the relevant provisions of the Austrian Bundesvergabegesetz (BVerG) (Federal Procurement Act) under the "Direktvergabe mit vorheriger Bekanntmachung" (direct award with prior announcement) procedure.

1. CONTRACTING AUTHORITY

Energie Agentur Steiermark gGmbH (A-8010 Graz, Gadollaplatz 1, Austria) for the Interreg AT-HU project "TopHeAT-HU"

2. PROJECT BACKGROUND

The aim of the TopHeAT-HU project is to develop decision support based on spatial analysis of heat stress in the Austrian-Hungarian border region, with a particular focus on the application of nature-based solutions. Project duration: 1 March 2026 to 30 November 2028

3. PURPOSE OF THE SERVICE

The purpose of the assignment is to conduct a satellite-based spatial and temporal analysis of heat stress in the Austrian-Hungarian border region, which directly supports climate adaptation decision-making at the municipal level and provides a basis for pilot interventions. The aim of the analysis is **to identify heat stress hotspots, explore heatwave exposure trends and spatial patterns, and categorise the results in a way that contributes to the planning and prioritisation of nature-based solutions and the designation of intervention areas.**

The study pays particular attention to identifying areas that show increased warming compared to their surroundings and are therefore more severely affected by the negative effects of heatwaves. The results form **the basis of the project's interactive map-based decision support platform and support the targeted planning of subsequent high-resolution surveys and local data collection.**



4. STUDY AREA

The Interreg AT-HU programme region: *Graz, Vienna, Vienna Umland/South, Lower Austria South, Central Burgenland, North Burgenland, South Burgenland, East Styria, and the counties of Győr-Ménfőcsanak, Vas and Zala.* <https://interreg.eu/programmes/austria-hungary/>

5. METHODOLOGICAL REQUIREMENTS

The study should be based on **satellite** data (e.g. Landsat, Sentinel, Copernicus). The spatial resolution should be at least **30×30 m**. The analysis should cover **a minimum of 10 years of summer** periods (2015–2025, June–August). *A longer analysis period and a more detailed temporal resolution (e.g. daily, weekly) within the summer period are advantageous.*

The more detailed spatial and temporal resolution may be based on modelled or interpolated values or on the combined use of multiple data sources if satellite data alone are not available in sufficient resolution. The methodological justification and details of this must be clearly described in the tender.

The analysis shall include:

- **determination of land surface temperature (LST),**
- **analysis of the frequency, duration and intensity of heat waves,**
- **identification of trends and heat stress hotspots,**
- **categorisation of results** (e.g. on a scale of 0–5) **for aggregated visualisation,** which will form the basis for detailed analyses to be carried out in the next phase of the project.

It is essential that the results are suitable for integration into the interactive map-based decision support platform to be developed as part of the project, with appropriate content and format (see 6. *Results*).

To this end, the methodology should cover:

- *the identification of heat stress hotspots,*
- *the spatial and temporal interpretation of heatwave exposure,*
- and structuring the results in a way that directly supports the planning and prioritisation of nature-based solutions and the designation of intervention areas.

The results of the analysis will serve, on the one hand, to preliminarily delimit potential pilot areas and, on the other hand, to plan targeted high-resolution surveys and data collection at the finally selected pilot sites in the next phase of the project.

During the implementation of the service, the specificities of the cross-border project environment must be taken into account and cooperation with project partners must be ensured. In this context, the service provider will participate in short online consultations in English, if necessary.

The service must comply with applicable European and national (AT, HU) data protection and copyright regulations, as well as the terms of use of the open data sets used.



6. RESULTS

a) Raster data:

- Preparation of **preliminary analysis results** for a jointly selected sample area (max. 5 km²), on the basis of which the client can check the suitability of the methodology used and the quality of the results, and make suggestions for minor adjustments if necessary. The study area and the exact content of the analysis will be determined during the preparation of the contract, in consultation with the selected tenderer. The purpose of the preliminary results is to ensure the professional and methodological adequacy of the service and to lay the foundations for the further phases of the project.
- a **layer containing the final categorised values**, in a format that can be used independently (e.g. GeoTIFF), which the consortium can use for further analysis in the project without the involvement of the tenderer - The data must be compatible with standard GIS systems (e.g. QGIS, ArcGIS).
- provision of **processed satellite images and/or interpolated data** showing surface temperature values at a given moment in time during the analysis period (e.g. via a link on the tenderer's own existing platform) for visualisation purposes. If the existing platform is not open to external users, the data must also be provided in a downloadable format.

b) Documentation in docx format in English, with particular regard to the quantity and temporal distribution of the satellite images used, the analysis methodology and textual evaluation (approx. 10 pages in length).

c) Presentation on the methodology and results (in pptx or prezi format).

Upon payment of the quote price, the customer shall become the owner of all intellectual property and related rights created and made available during the course of the contract. These results and products may be used freely by the consortium without further payment or time restrictions.

The service fee shall be paid by the customer in a single instalment, after verification of the proper performance of the contract, at a time jointly agreed upon during the conclusion of the contract.

7. SERVICE DEADLINE

The results shall be delivered **by 12:00 pm on 29 May 2026** at the latest.

The client reserves the right to make minor changes to the content or schedule of the service in line with the requirements of the project.



8. SUBMISSION OF QUOTES

a) Contents of the quote

- methodology (overview, max. 2 pages)
- schedule
- expert(s)
- references
- price

Please submit your offers by completing the specified form for quotes!

The client reserves the right to ask bidders clarifying questions if necessary.

The price must include all costs (labour, data access, processing, presentation, etc.) that may arise in connection with the performance of the contract.

b) Eligibility criteria

The bidder must prove that it has the professional and technical capacity to perform the service. In this context, the following minimum requirements must be met:

- The tenderer must have at least two reference projects from the last three years relating to the processing and analysis of satellite spatial data (surface temperature, heatwave or climate adaptation analyses are worth +3 points in the evaluation, see c) *Evaluation criteria*).
- The tenderer shall ensure the involvement of at least one expert with relevant professional experience who will actively participate in the implementation of the task. The experts must have:
 - a degree in remote sensing, geoinformatics or a related technical or natural science field,
 - as well as proven professional experience in satellite data processing and spatial analysis.

The tenderer shall prove that the eligibility criteria are met by submitting a list of references and the CVs of the experts.

c) Evaluation criteria

Offers will be evaluated on the basis of predefined and weighted criteria (see table below on page 5) by the consortium members jointly. The price will be evaluated using a proportional method, with the lowest price receiving the maximum number of points. The methodology and experience will be scored on the basis of professional assessment according to the criteria listed in the table.

During the methodological evaluation, special attention is paid to the quality of the time series analysis, the interpretation of heat wave exposure, and the practical applicability of the results in supporting municipal decision-making.

An analysis period of more than 10 years and the most detailed time resolution possible (more detailed than weekly) are considered as professional advantages.



When evaluating references, not only the number of references but also their professional quality and relevance will be taken into account. Experience directly related to the subject of the task (e.g. surface temperature or heat wave analyses) is a key criterion, which has an advantage over general remote sensing projects and can also earn extra points.

Criterion	Description	Max. points	
Price	The lowest price receives the maximum number of points, and the other offers are evaluated proportionally: $(\text{lowest price} / \text{examined price}) \times 20$	20	
Methodology	Quality of time series analysis (data processing, temporal trends, statistical approach)	10	
	Bonus points: Analysis period exceeding 10 years +2 points, detailed time resolution (more detailed than weekly) +2 points		
	Interpretation of heatwave exposure (definitions, indicators, validity)		10
	Hotspot and categorisation method (spatial comparability, scaling)		10
	Practical applicability (relevance for planning and decision support, visualisation)		10
Experience	Relevant professional and project experience (LST, UHI, climate adaptation + 3 points per project)	15	
	EU/international projects	5	
	Similar-sized or regional analyses	5	
	Scientific or professional publications	5	
	Quality and relevance of references	10	
Total		10	

d) Deadline for submission of quotes

Please submit your quotes in electronic form **by 23:59 on 11 March 2026** at the latest to the following email address: anna.kovacs-gyori@ea-stmk.at.

The quote must be valid for at least 30 days.

9. QUESTIONS AND CLARIFICATIONS

Bidders may submit their questions in writing **until 2 March 2026**. Where relevant, clarifications will be published in the original call for tenders so that the information is accessible to everyone.

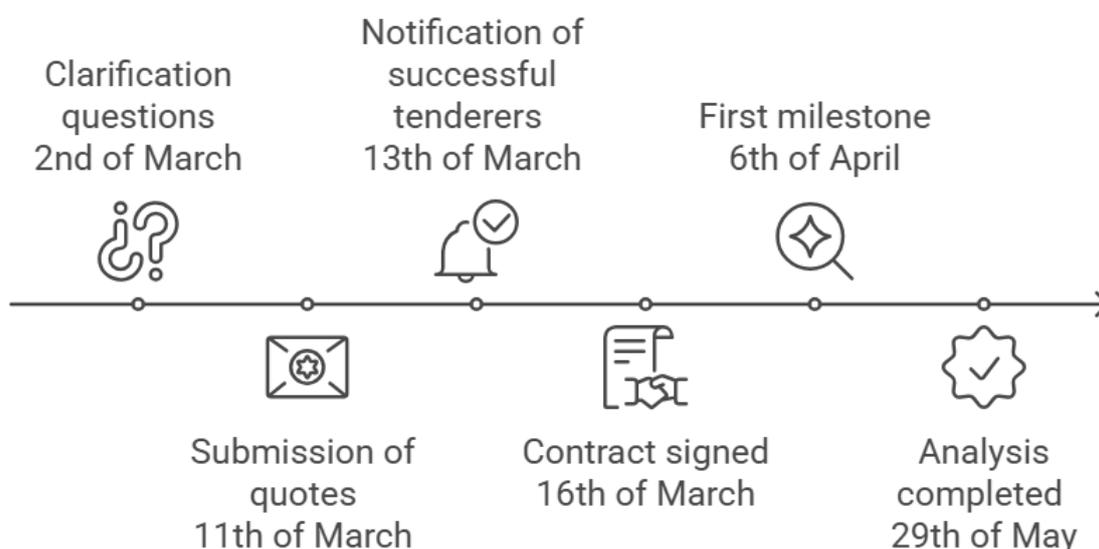
10. GROUNDS FOR EXCLUSION

The tenderer declares that it is not subject to bankruptcy, liquidation or winding-up proceedings and that there is no conflict of interest in relation to the implementation of the project.



OVERVIEW OF KEY DEADLINES:

1. Clarification questions regarding the content of this call for tenders: until 23:59 on 2 March 2026
2. Deadline for quote submission: 11 March 2026, 23:59
3. Notification of the successful tenderer: by 23:59 on 13 March 2026
4. Planned date of contracting: 16 March 2026
5. First milestone – conducting and presenting a pilot analysis on a smaller sample area based on the methodology specified in the quote: by 12:00 on 6 April 2026
6. Deadline for completion for the entire area to be examined: 29 May 2026, 23:59



CONTACT PERSON:

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