CLIMATE RISKS: ANTICIPATING IMPACTS AND GUIDING URBAN ADAPTATION

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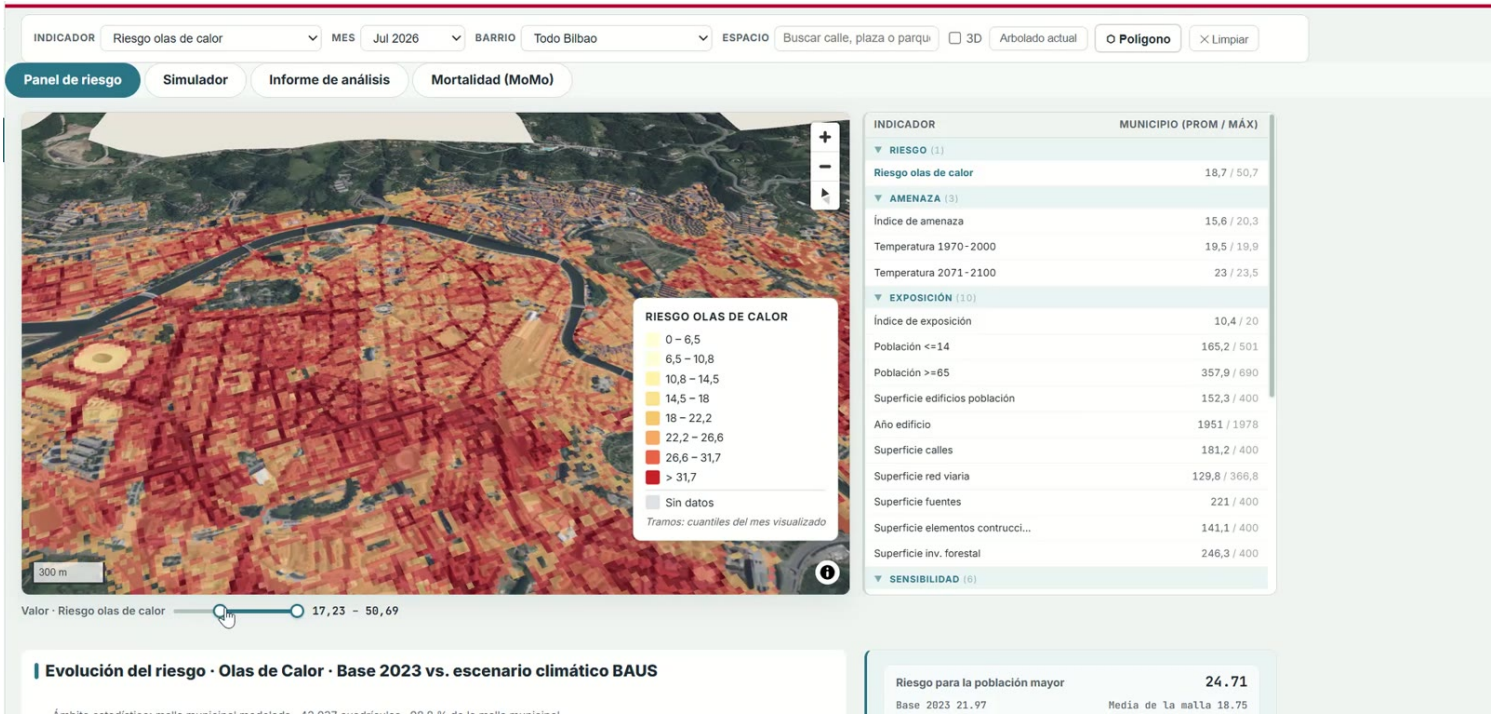
what it is

A TERRITORIAL INTELLIGENCE TOOL FOR CLIMATE ADAPTATION

Climate Risks links climate hazards with **buildings, infrastructure and population** to identify where risk is concentrated. It brings together climate information, mapping and social variables, making it possible to compare areas, understand what drives their vulnerability and simulate interventions.



objectives

PREPARING THE CITY FOR CLIMATE CHANGE

A hazard map alone does not explain what consequences an event may have on the city. Exposure, population characteristics and adaptive capacity change how risk is read, even within the same neighbourhood. The tool connects these dimensions to **prioritise action and protect the most vulnerable people**.

features

FLOODING, HEAT, SCENARIOS AND REPORTS

- **River flood exposure**: analysis of exposed buildings, infrastructure and population, and comparison of risk components across areas.
- **Heat risk and urban vulnerability**: temperature projections linked to urban conditions, vegetation and population vulnerability.
- **Simulation of adaptation measures**: estimated effect of actions such as tree planting, green spaces or climate shelters in the selected area.
- **Smart reports**: summaries of what is changing, which factors contribute and which responses are worth exploring.

beneficiaries

CITY COUNCILS AND SUPRA-MUNICIPAL BODIES

Environment, adaptation, planning and public space departments, services working with vulnerable groups and supra-municipal bodies. Each hazard is analysed with its own methodology, and the tool supports planning without replacing detailed hydraulic studies or emergency protocols.

applications

USES IN CITY MANAGEMENT

1. Prioritising areas for heat adaptation: finding where the greatest need meets the lowest capacity to respond, and testing measures in those areas.

2. Reviewing river flood exposure: identifying the buildings, infrastructure and population that need more specific analysis.

3. Monitoring the adaptation plan: comparing the baseline with new updates and reviewing priorities.

demo

PRODUCT DEMONSTRATION

The video shows the analysis of heat risk and urban vulnerability in a real urban setting.

The images and video show the Bilbao 2050 case, promoted by Bilbao City Council with technological collaboration from PwC, NAIDER and TEKNEI. Scenarios are model estimates.

Discover the Climate Risks product on DataTool