

Science, participation, and adaptation to extreme heat in Valencia

Experiences of raising awareness and adapting to extreme heat in Valencia

Heatwaves

More frequent, more intense, longer-lasting

Historical trends in heatwaves in the study area of the Valencian Community (1979–2014):

Increase in the number of events: **+ 2** events/decade

Increase in intensity: **+ 1°C**/decade

Increase in duration: **+ 1** day/decade

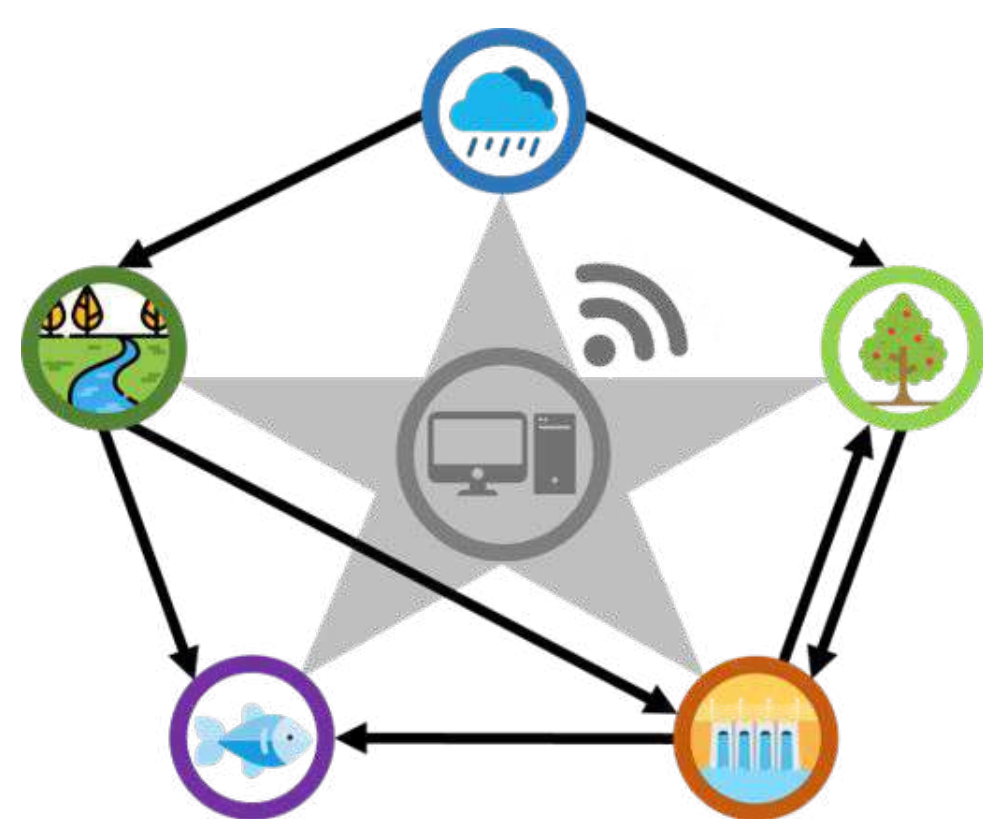
Increase in the number of days in heatwaves: **+ 7** days/decade

Is it just as hot in all parts of Valencia?

We took part in the national “Termometrada” temperature survey: Results



Droughts



- Meteorological drought forecasts are defined using SPI (Standardized Precipitation Index) and SPEI (Standardized Precipitation Evapotranspiration Index) and are produced exclusively at seasonal timescales using seasonal forecasting systems from ECMWF SEAS5, Météo-France System 8, DWD GCF5.2.1, and CMCC SPSv3.5, available through the Copernicus Climate Change Service (C3S).
- Forecasts are combined with ERA5 reanalysis and post-processed using AI techniques to correct biases in meteorological variables (excluding drought indices).
- Precipitation and temperature (mean, maximum, and minimum) forecasts are available across short-term, sub-seasonal, and seasonal timescales. Available online at the **WATER4CAST** portal.



WATER4CAST
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Workshop: Heat in neighborhoods and Nature-Based Solutions

12 February 2026

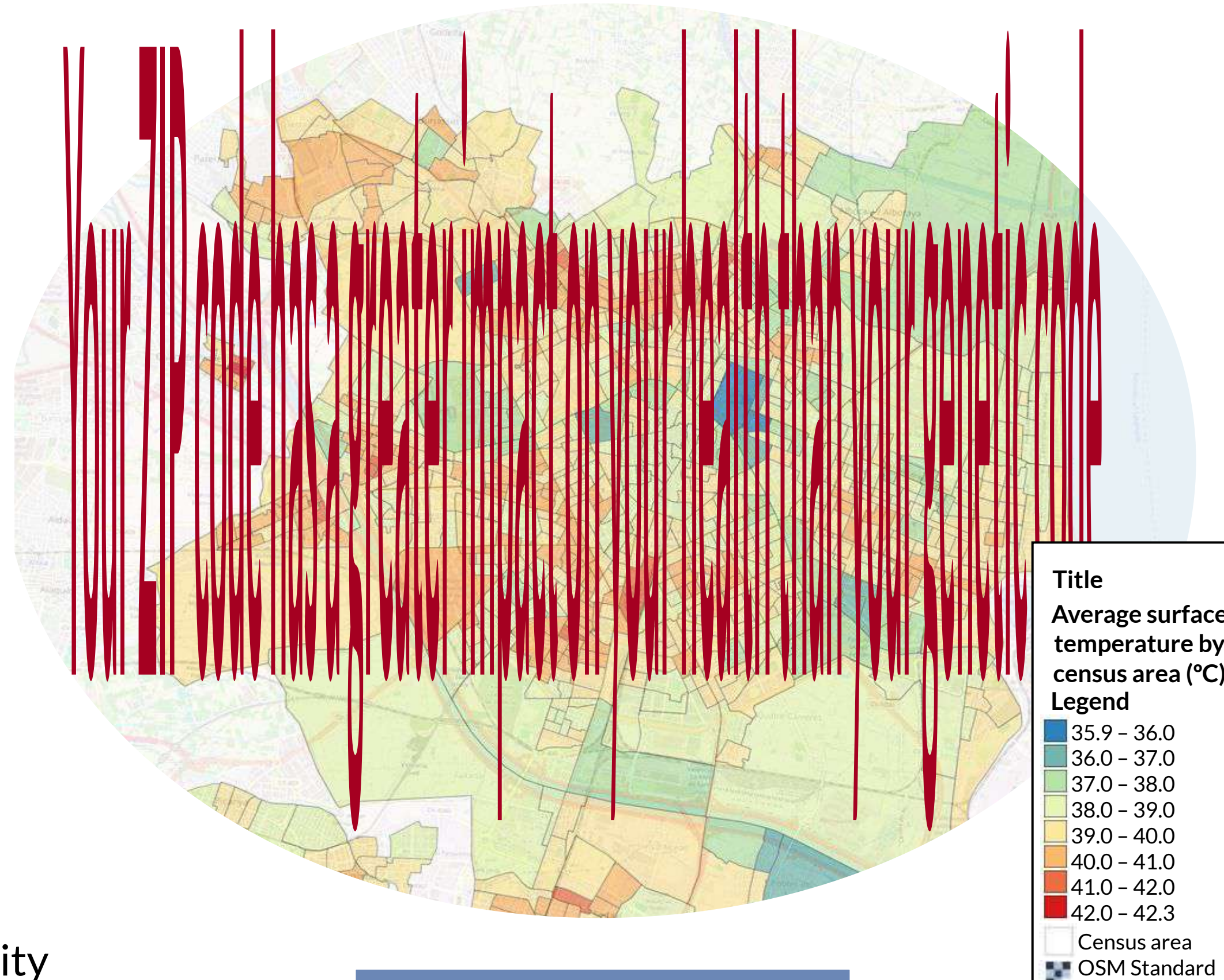
- Develop a technical manual for NbS
- Implement mandatory comparative assessment in infrastructure project
- Establish municipal NbS coordination units or roles

Affordability

Social acceptance

Sustainability

Administrative feasibility



Scientific papers:



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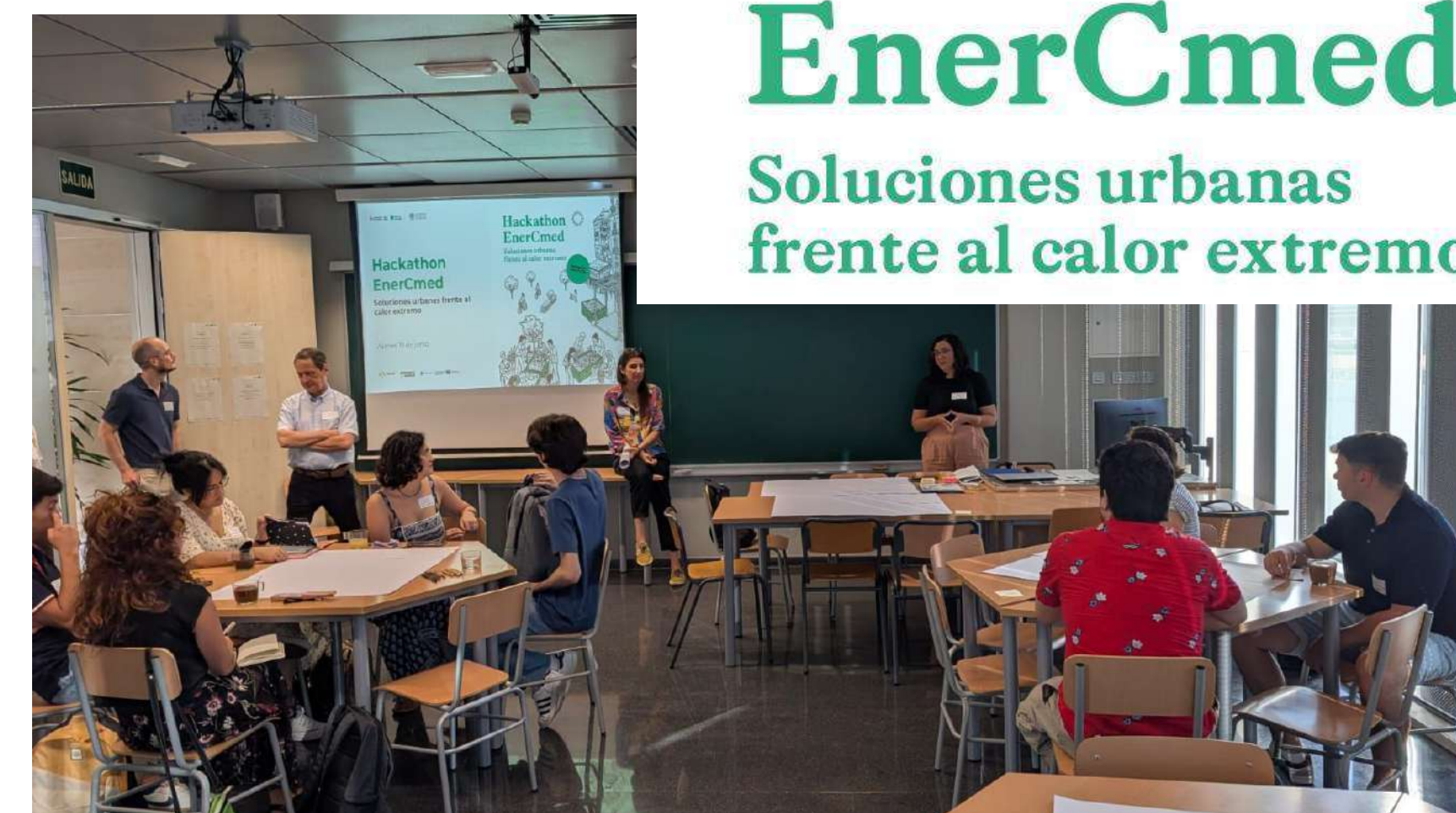


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Hackathon: Urban solutions to extreme heat

19 June 2026

Hackathon EnerCmed
Soluciones urbanas frente al calor extremo



Challenge: to design nature-based solutions to reduce the impact of heat on public and community spaces, with a particular focus on the most vulnerable population.

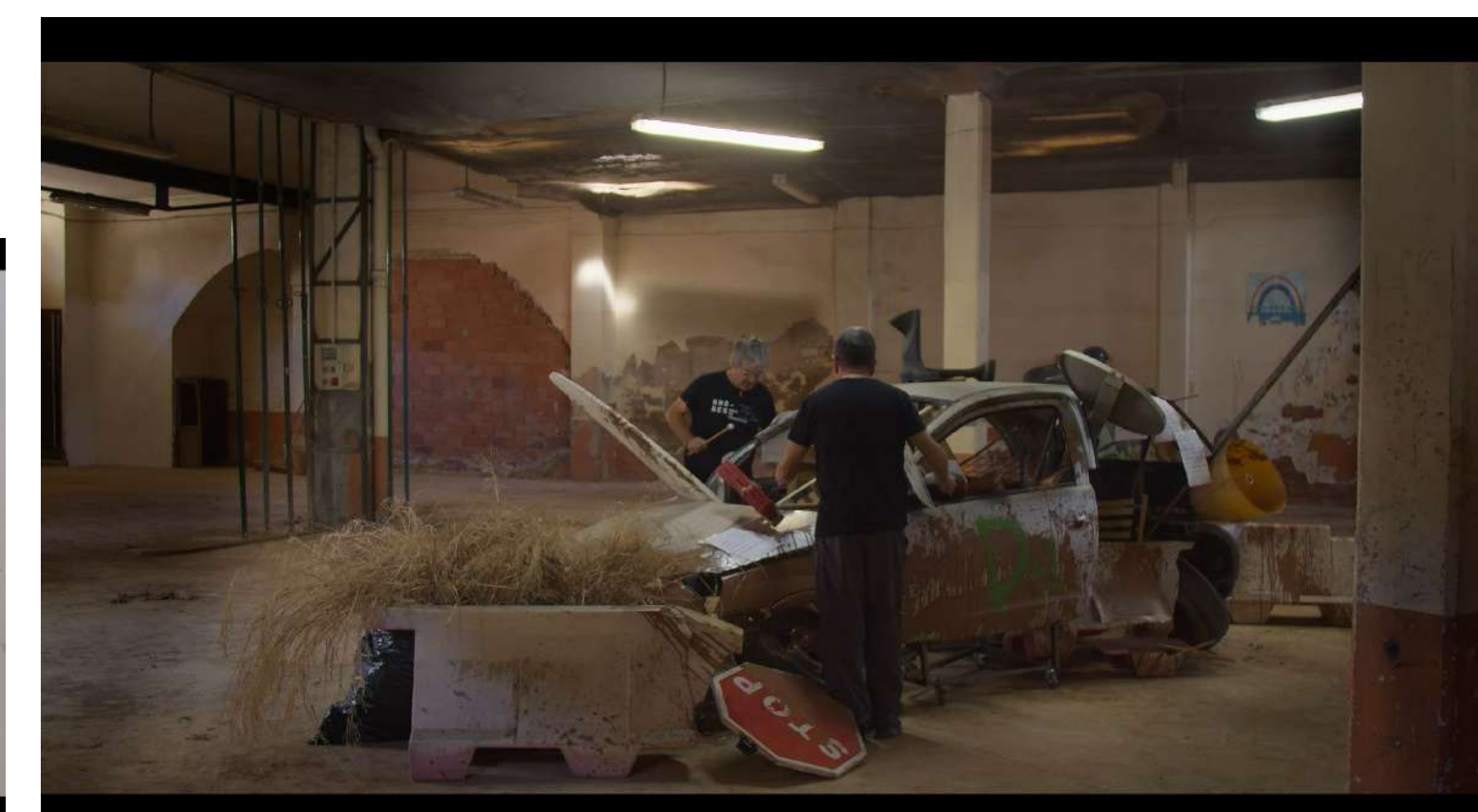
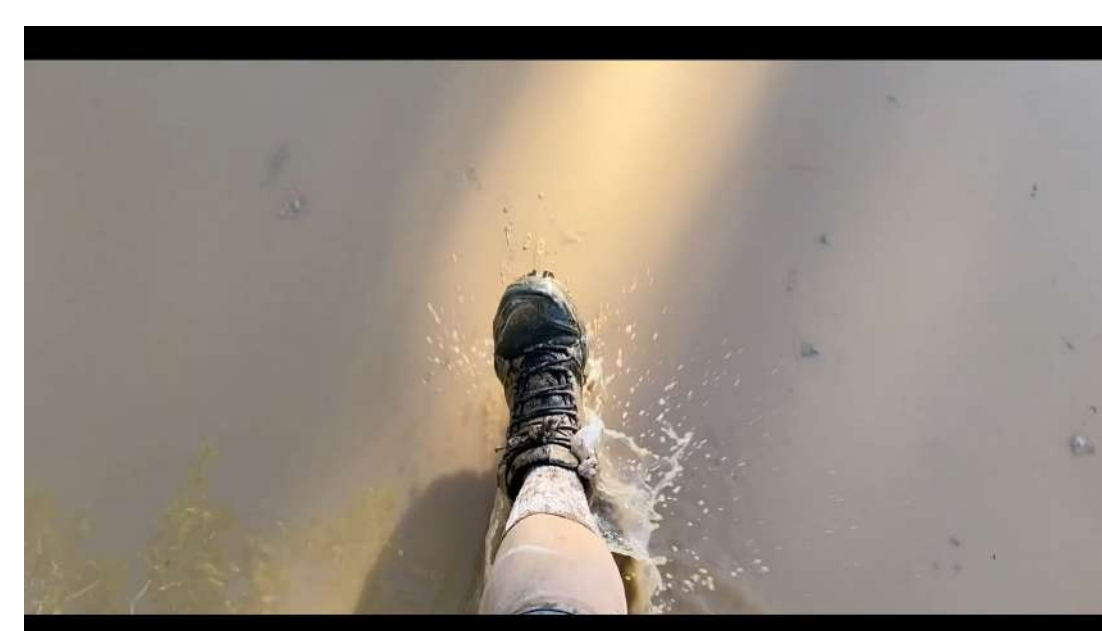
Participating students: 14 students from the fields of Architecture, Urban Planning, Engineering, Environment and Development Cooperation.



Video - DANAda: Designing Adaptation - Experiences for a Resilient Future



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