# MERLÍN

Flood Hazard Forecasting System


Grupo de Ingeniería del Agua y del Medio Ambiente · UNIVERSIDADE DA CORUÑA · XUNTA DE GALICIA · augasdegalicia · meteogalicia

MERLIN - Flood Hazard Forecasting System

- From rainfall to local water levels
- Daily inundation hazard forecasts in flood prone areas with a time horizon of 24, 48 and 72 hours
- Based on meteorological ensemble forecasts
- 3 modules: meteorological, hydrological and hydraulic
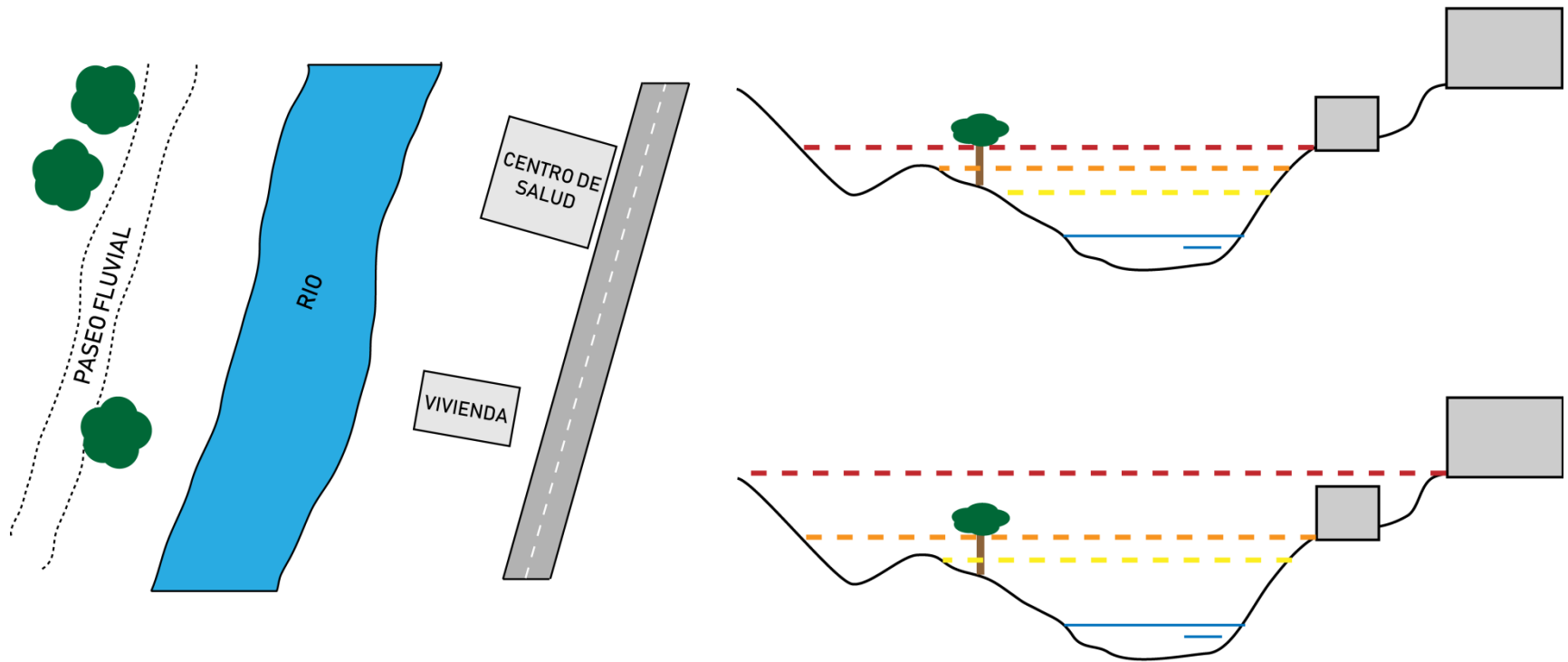
MERLIN - Flood Hazard Forecasting System
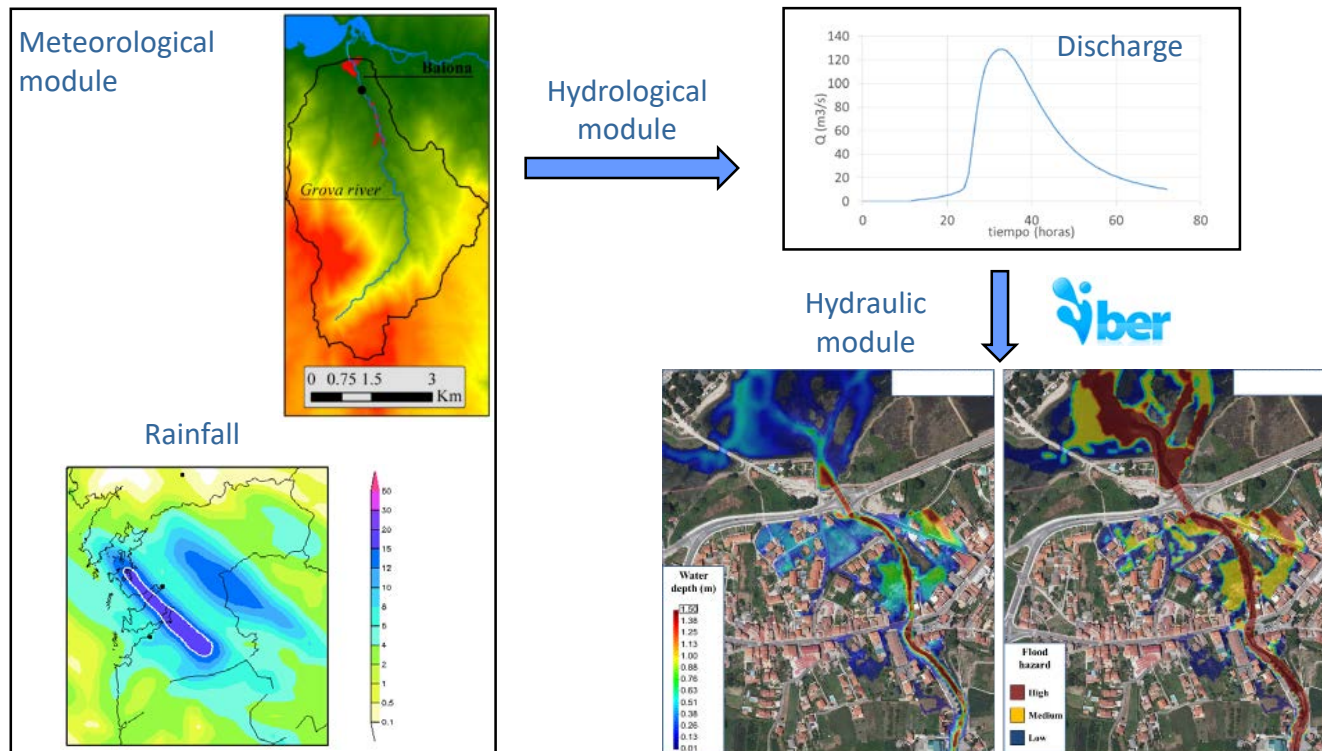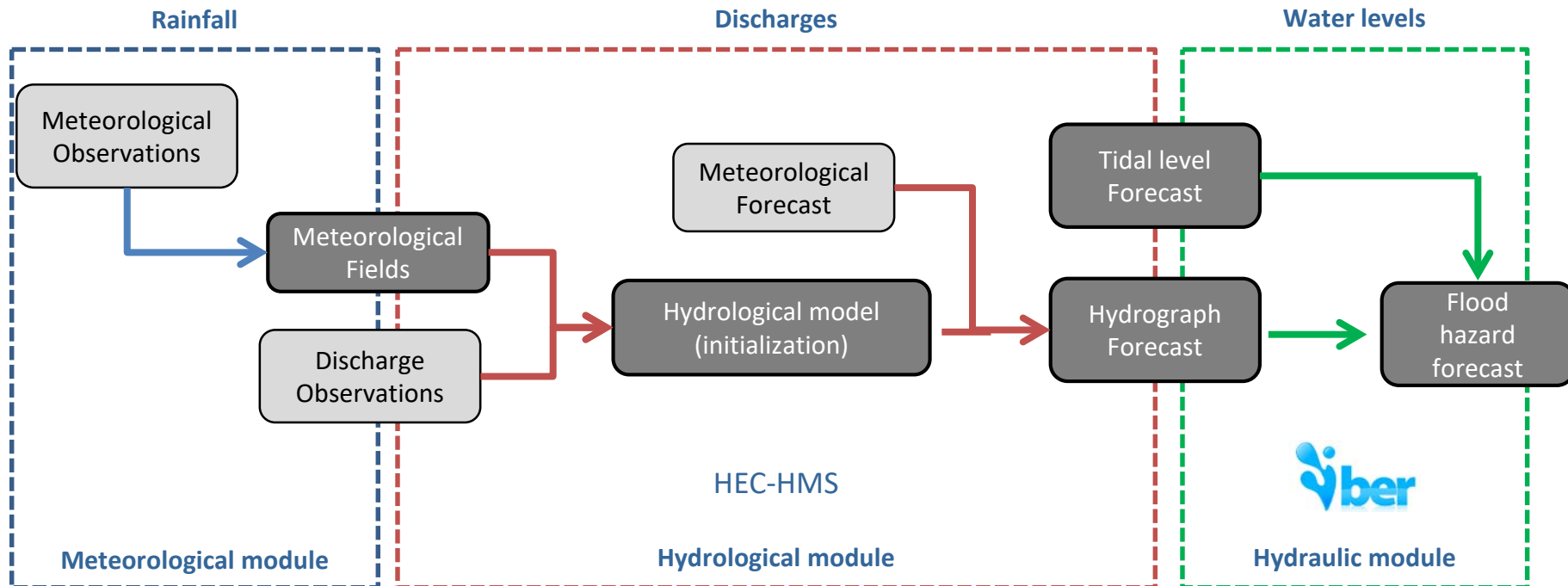
- Meteorological observations and forecasts from Meteogalicia | www.meteogalicia.gal
- Discharge observations from Augas de Galicia | augasdegalicia.xunta.gal
- Soil moisture from SMAP | smap.jpl.nasa.gov
- Hydrological module based on HEC-HMS | www.hec.usace.army.mil
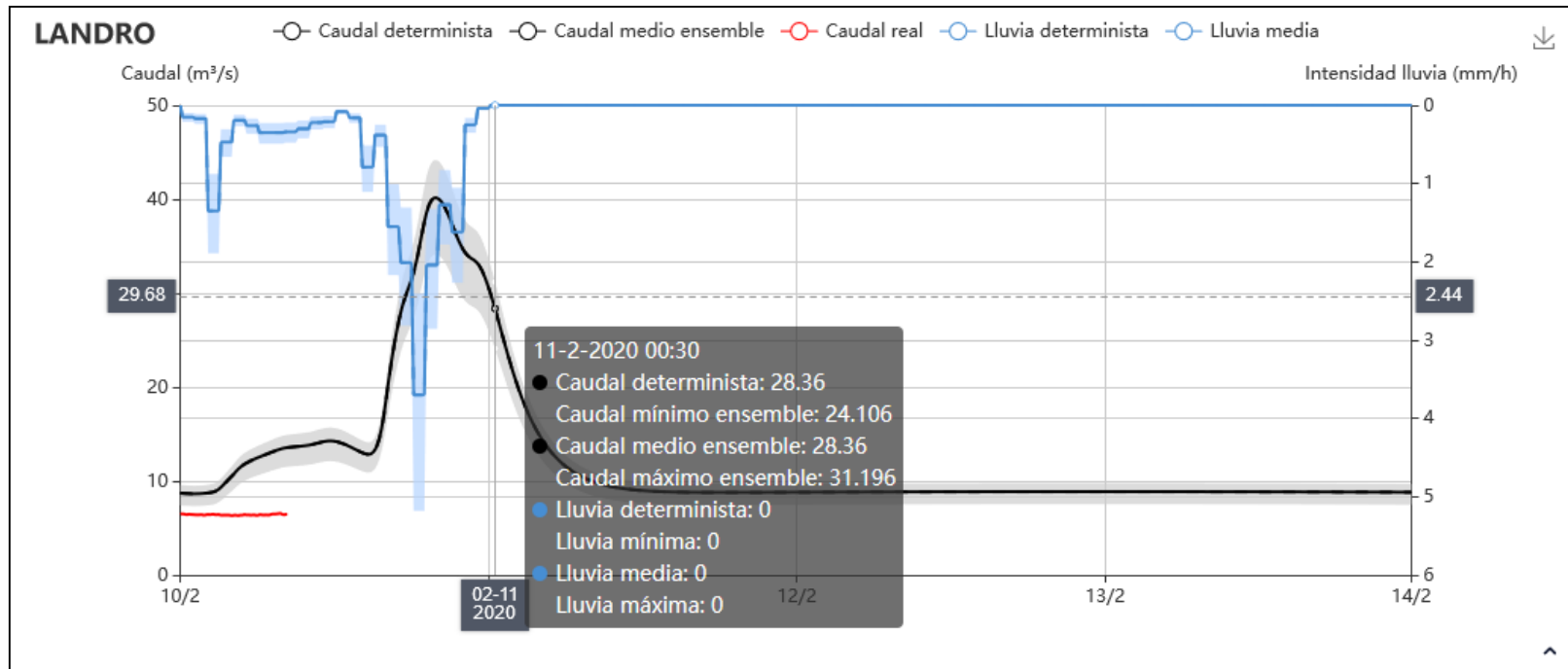- Hydraulic module based on Iber | www.iberaula.es
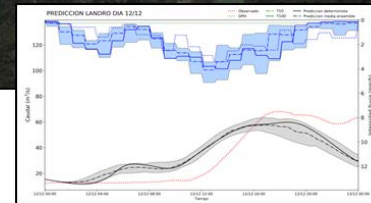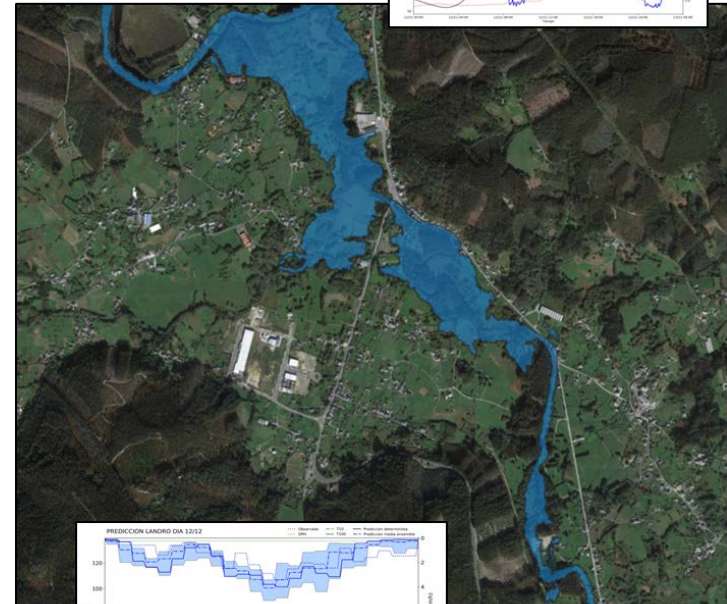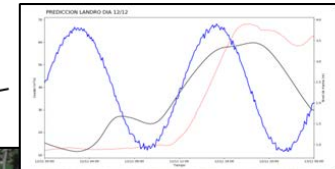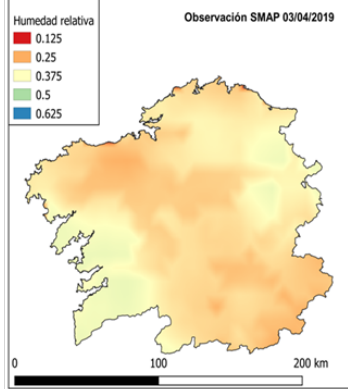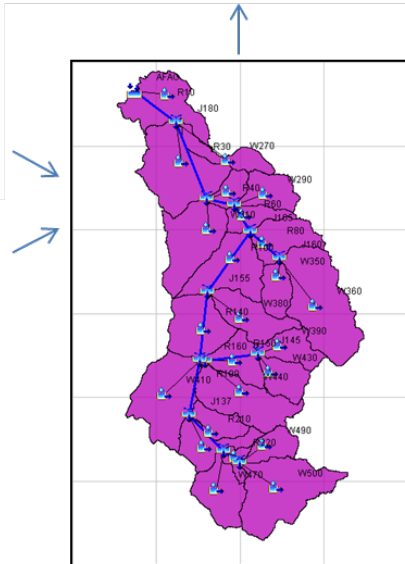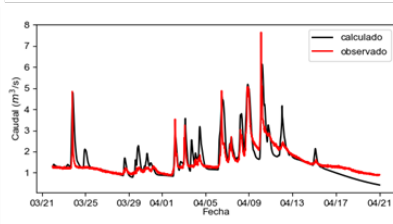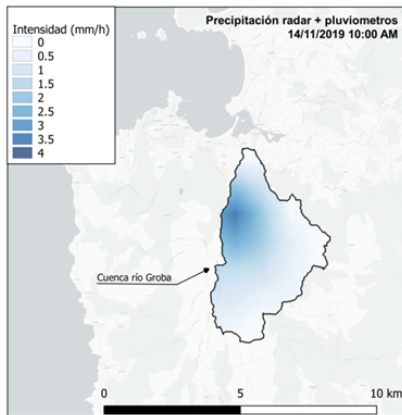
- Implementation in flood prone areas in Galicia (NW Spain)
- Small and medium catchments, from 5 to 500 km^2
- Compound flooding by tidal level and river discharge

- Early warnings depending on local water levels at critical locations

- Web online visualization

Based on free software

Fraga, I., Cea, L., Puertas, J. (2020). MERLIN: a flood hazard forecasting system for coastal river reaches. *Natural Hazards*, 100, 1171–1193. DOI: 10.1007/s11069-020-03855-7