HYDROEUROPE

Co-funded by the European Union

HydroEurope Project: Pan-European Teaching Units on flash flood modelling and analysis for 6 cases of study in Europe. A cooperative partnership under Erasmus +

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A history of **cooperation** between **European universities** aiming to improve **education** in the field of **water resource modelling** and **climate change** impacts

Characteristics

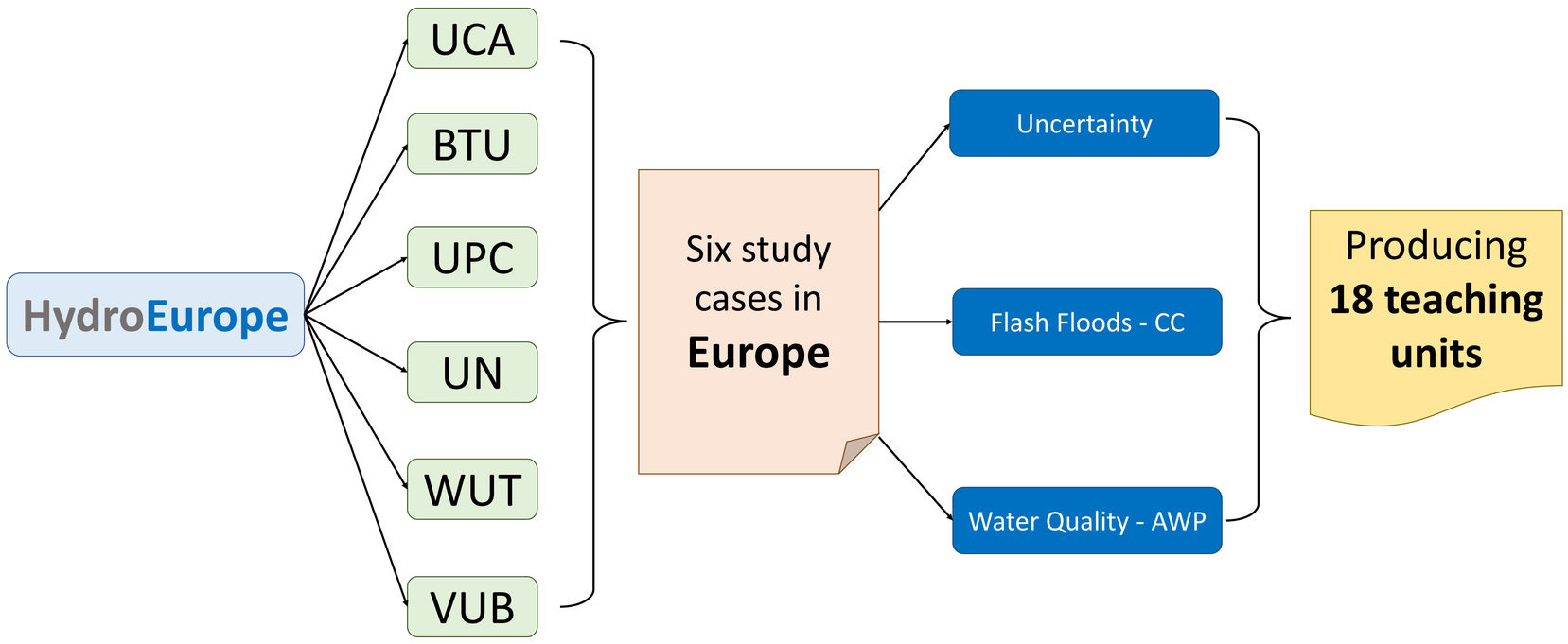
- Highly **innovative** & **collaborative** teaching experience across European universities
- **Problem-oriented** project-based learning concept (“**learning by doing**”)

Objectives

- **Advanced** teaching units
- Improve **students skills** in the field of modelling **hydrology & hydraulics**

Approaches

- HydroEurope **project + course**

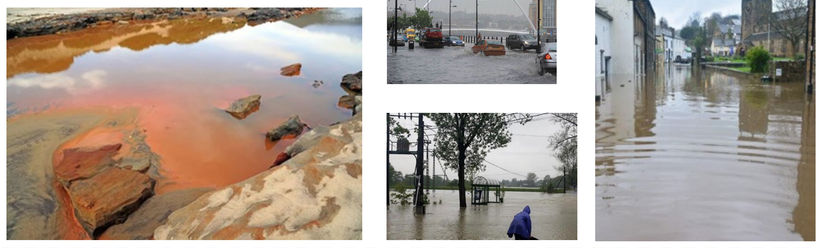


HydroEurope Project + course

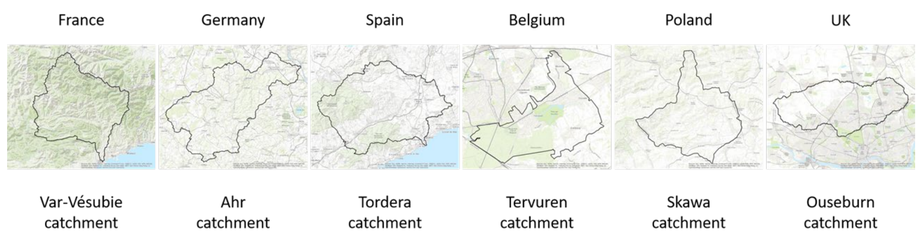
Nice 2023 → Nice 2024 → Barcelona 2025

Main topics to study

- **Uncertainty** on advanced hydrologic-hydraulic modelling
- Climate change impacts on **flash floods**
- Accidental **water pollution**

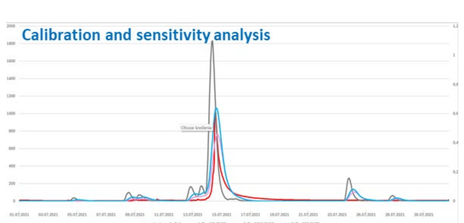


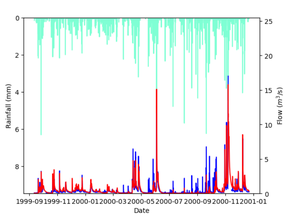
Six cases of study (catchments) across Europe

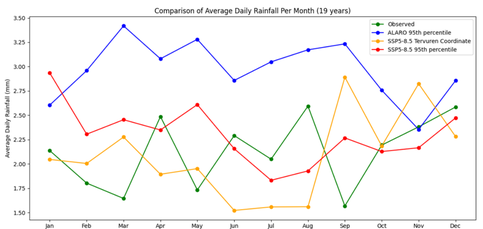


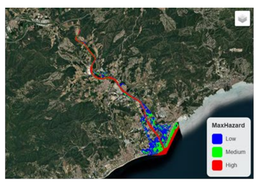
Outcomes of the project

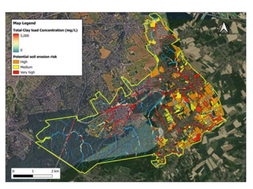
- Production of **advanced teaching unit** designed to understand the **issues** affecting the catchments under the **topics** (flash floods) studied
- Detailed understanding of the **6 cases** of study under **flash floods** events
- Complete **analysis** at a catchment level considering the whole water cycle From **meteorology**, **hydrology** to **hydraulics**
- Activities dedicated to the **training** of student in the field of **hydroinformatics**
- **Production** of extra material as reports, data, information, etc., of the cases analysed

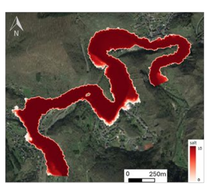


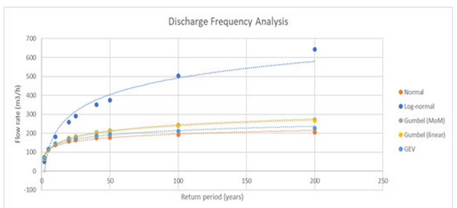


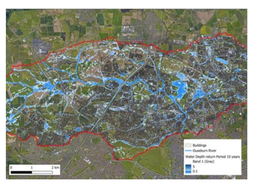


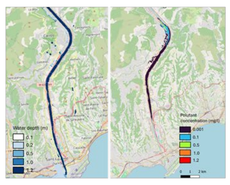


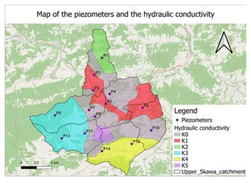


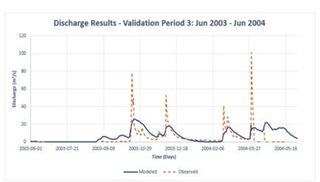












Other important outcomes

- **Organization**
- **Communication** (multiculturalism)
- Investigating **approach**
- **Produce** information
- **Deep analysis** of real cases of study
- **Awareness** and interest of new young **professional** and **student** about **concerning** topics as: **climate emergency**, water **management**, social **impacts**, etc.

HydroEurope: A project co-funded by EU and the commitment and work of European universities working together, were able to create teaching units related to flash floods in Europe intended to improve student skills and educational programs. These materials are open access and can be easily used by universities and institutions willing to improve education

Visit the result of the project at: **https://hydroeurope.upc.edu/**

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