

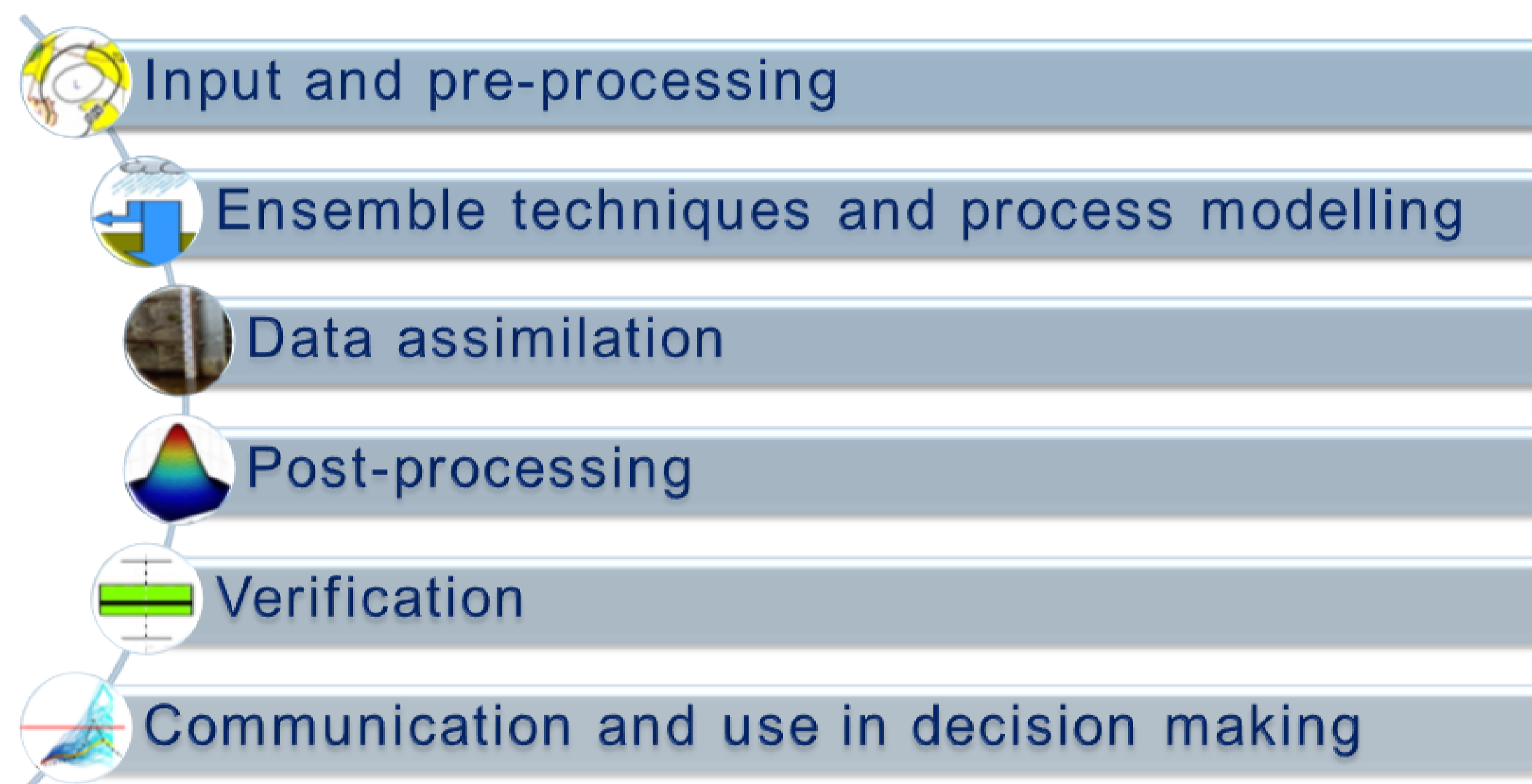
Role-play games, experiments, workshops, blog posts: how community activities in HEPEX contribute to advance hydrologic ensemble prediction

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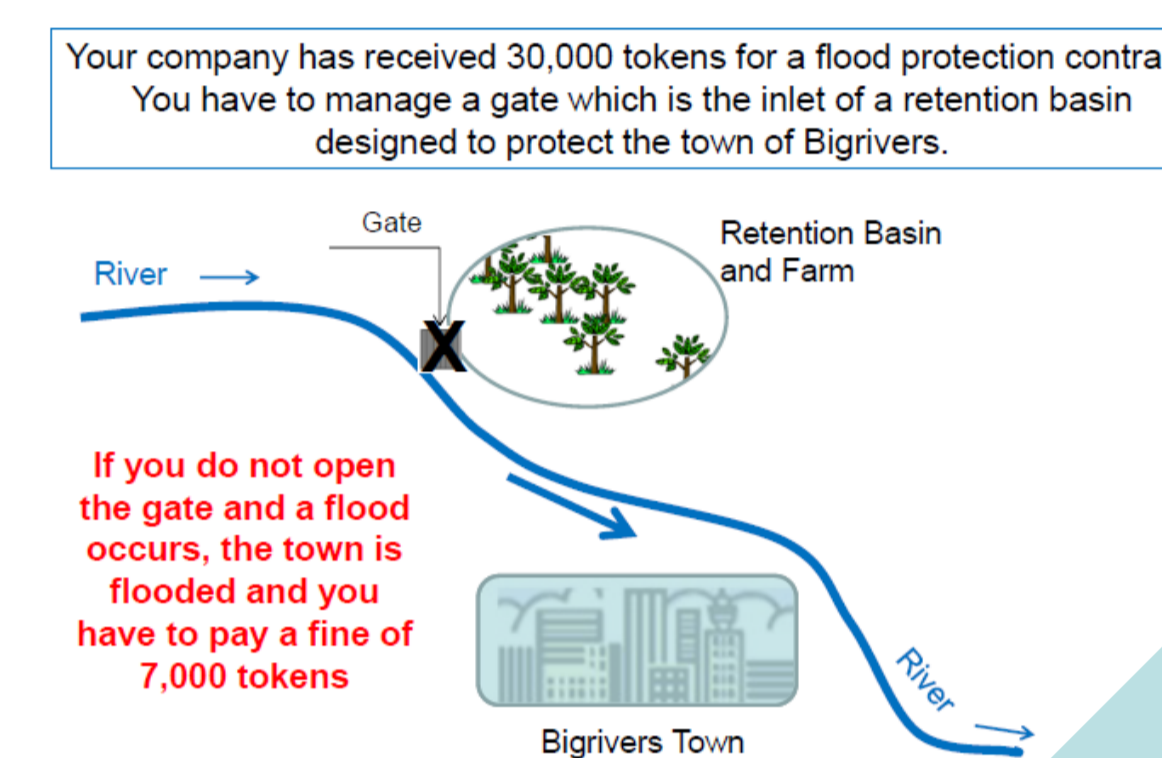
HEPEX activities include:

- organizing scientific exchange between participants through workshops and sessions or meetings at major conferences,
- planning and coordinating experiments or testbeds,
- highlighting operational or experimental real-time forecasting systems to help practitioners find out about how ensemble prediction is being used around the world for various applications,
- maintaining a community online interaction and related resources via its website.

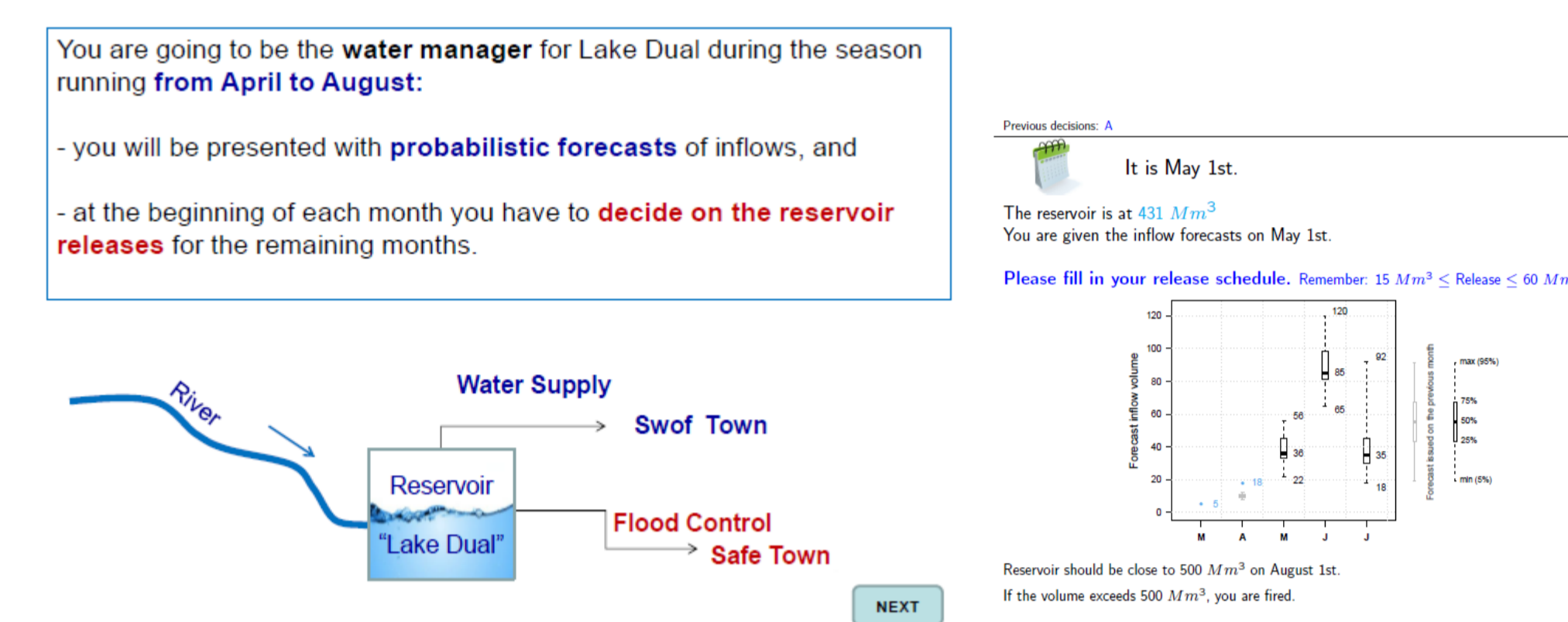


Would you like to **play a game**? HEPEX has prompted the development of several publicly available role-play games:

Flood control game (Ramos et al., 2013)



Water management game (Crochemore et al., 2016)



Willingness to pay for a probabilistic flood forecast game (Arnal et al., 2016)



And more at:
www.hepex.org

HEPEX 6th International Workshop – *Ensemble for better hydrological forecasts*, Quebec, Canada, 85 people from 16 countries, about 60 oral and posters presentations

- ✓ **Applications:** Methods for evaluating the value of ensemble forecasts were contrasted, and showed how social structure and communications play an important role in achieving impacts. Many case studies, including from hydropower corporations and flood emergency and water management agencies, demonstrated the benefits and complexities of using ensemble forecasts.
- ✓ **Operations:** How forecasters interact with forecasting models drew much interest once again – If one was not “in the loop”, one could certainly be just as effective or even more so operating “over the loop”!
- ✓ **Science:** Different ways to handle hydrological uncertainty, being through representing multiple initial conditions, multiple hydrological models, or total residues, were showing progress towards achieving reliable ensemble forecasts.



- **Next HEPEX Workshop:** 6-8 Feb 2018 in Melbourne



- **The Special issue:** “Sub-seasonal to seasonal hydrological forecasting” on HESS is open for submissions until 30 Jun 2017: http://www.hydrol-earth-syst-sci.net/special_issue824.html

Arnal, L., Ramos, M.-H., Coughlan, E., Cloke, H.L., Stephens, E., Wetterhall, F., van Andel, S.J., Pappenberger, F., 2016. Willingness-to-pay for a probabilistic flood forecast: a risk-based decision-making game. *Hydrol. Earth Syst. Sci.*, 20: 3109-3128.

Crochemore, L., Ramos, M.H., Pappenberger, F., van Andel, S.J. and Wood, A., 2016. An experiment on risk-based decision-making in water management using monthly probabilistic forecasts. *Bull. Amer. Meteor. Soc.*, 97 (4): 541-551.

Ramos, M.H., van Andel, S.J., Pappenberger, F., 2013. Do probabilistic forecasts lead to better decisions? *Hydrol. Earth Syst. Sci.*, 9 (17): 2219-2232.

HEPEX (Hydrologic Ensemble Prediction Experiment) began in 2004 at an ECMWF workshop that was jointly organized with the US National Weather Service (NWS) and the European Commission (EC). Over its more than 13 years of existence, it has connected the research community, forecasters and forecast users and facilitated the exchange of ideas, data, methods and experiences.