

Building the tools to speed up the policy design cycle: letting policy makers work with hydrologic models themselves through eWaterCycle

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What is eWaterCycle?

eWaterCycle is a platform for Hydrological modelling. The system is explicitly designed to make it easy to use state of the art models, and share results with ease according to the FAIR principles.

A platform such as eWaterCycle can provide direct access to state of the art models to policy makers and their staff, allowing for more informed decisions.

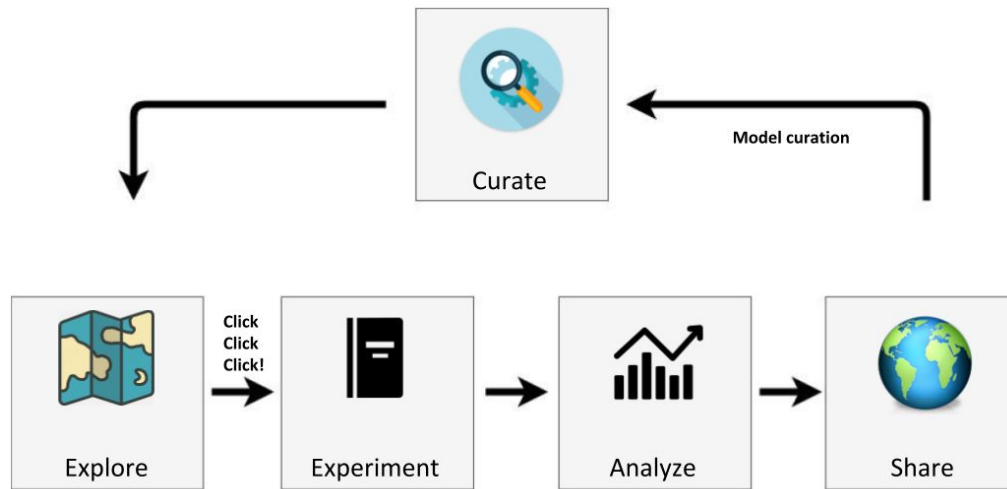


Figure: The scientific experiment cycle of eWaterCycle.

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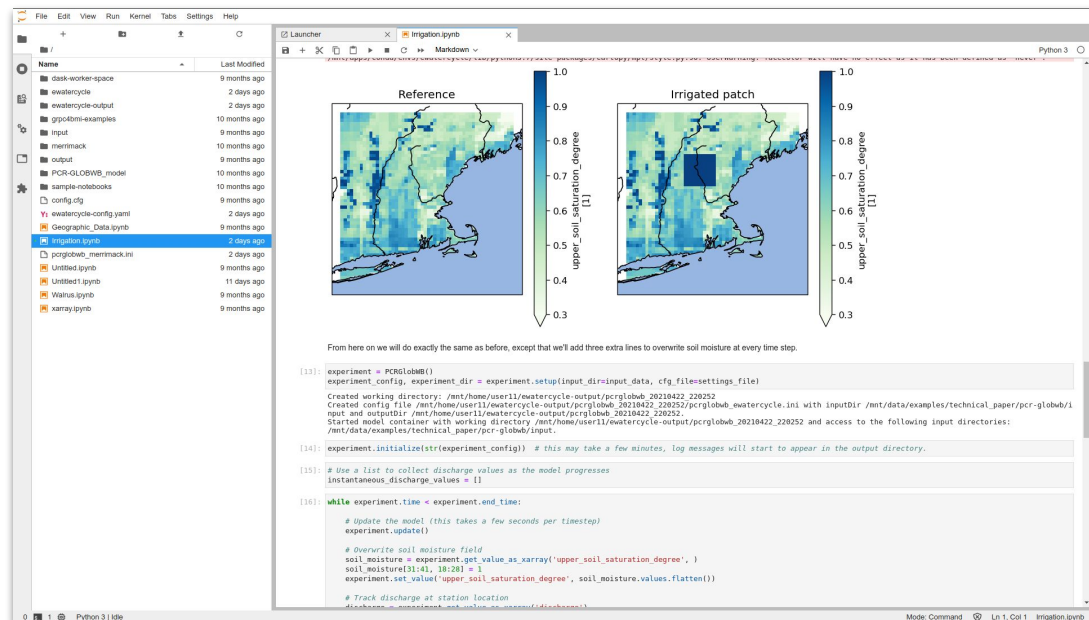
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The eWaterCycle modelling environment

This is a screenshot of the Jupyter environment. If you happen to be a Jupyter user you will see it is a very standard Jupyter setup. This is done on purpose to make the barrier of entry as low as possible for anyone with a data science background.

The environment comes with state of the art models and all the required data to run these models. It also supports standard hydrological analysis capabilities such as creating a Hydrograph and calculating model quality statistics.



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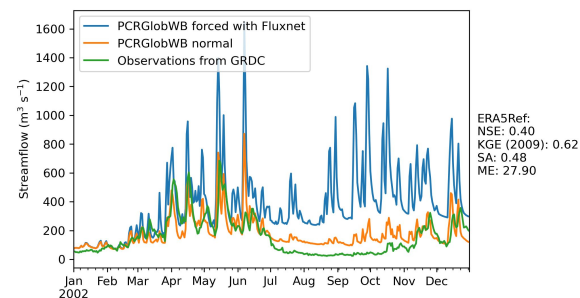
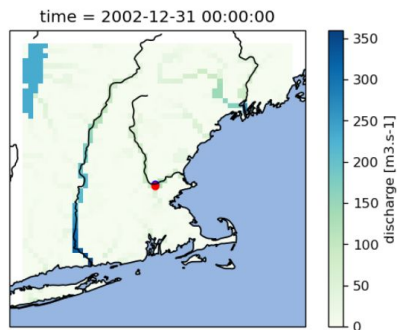
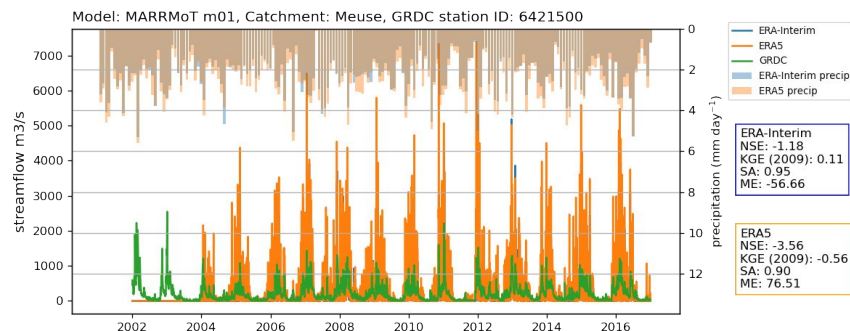
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Available models, data, and tools

eWaterCycle has built-in support for commonly used datasets (e.g. ERA-5, ERA-Interim), state of the art models (e.g. PCRGLOB-WB, WFLOW, LISFLOOD), and verification data (e.g. GRDC).

We build on standard open source tools as much as possible. Next to offering our pre-made models and analysis we also try to make it easy to add new models, data, and tools to the system.



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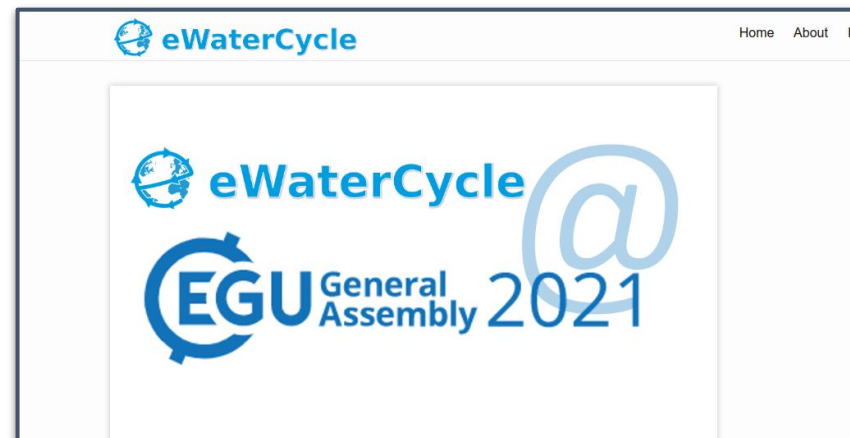


What's next for eWaterCycle?

Our upcoming publications and releases:

- Niels Drost et al, “The eWaterCycle platform for Open and FAIR Hydrological collaboration”, in preparation, 2021
- Rolf Hut et al, “Comparing impact of ERA5 vs ERAInterim on hydrology using the eWaterCycle Open Hydrological Platform”, in preparation, 2021
- Beta access to the eWaterCycle platform

<https://www.ewatercycle.org/2021/04/15/ewatercycle-at-egu2021.html>



Thank you for your attention. See our website for more information, including a list of other sessions at EGU where we are presenting our work. Please be in touch (ewatercycle@esciencecenter.nl) in case you have any questions or comments.