eWaterCycle

Making it easy to use hydrological models

netherlands eScience center

Peter Kalverla
November 17th, 2022

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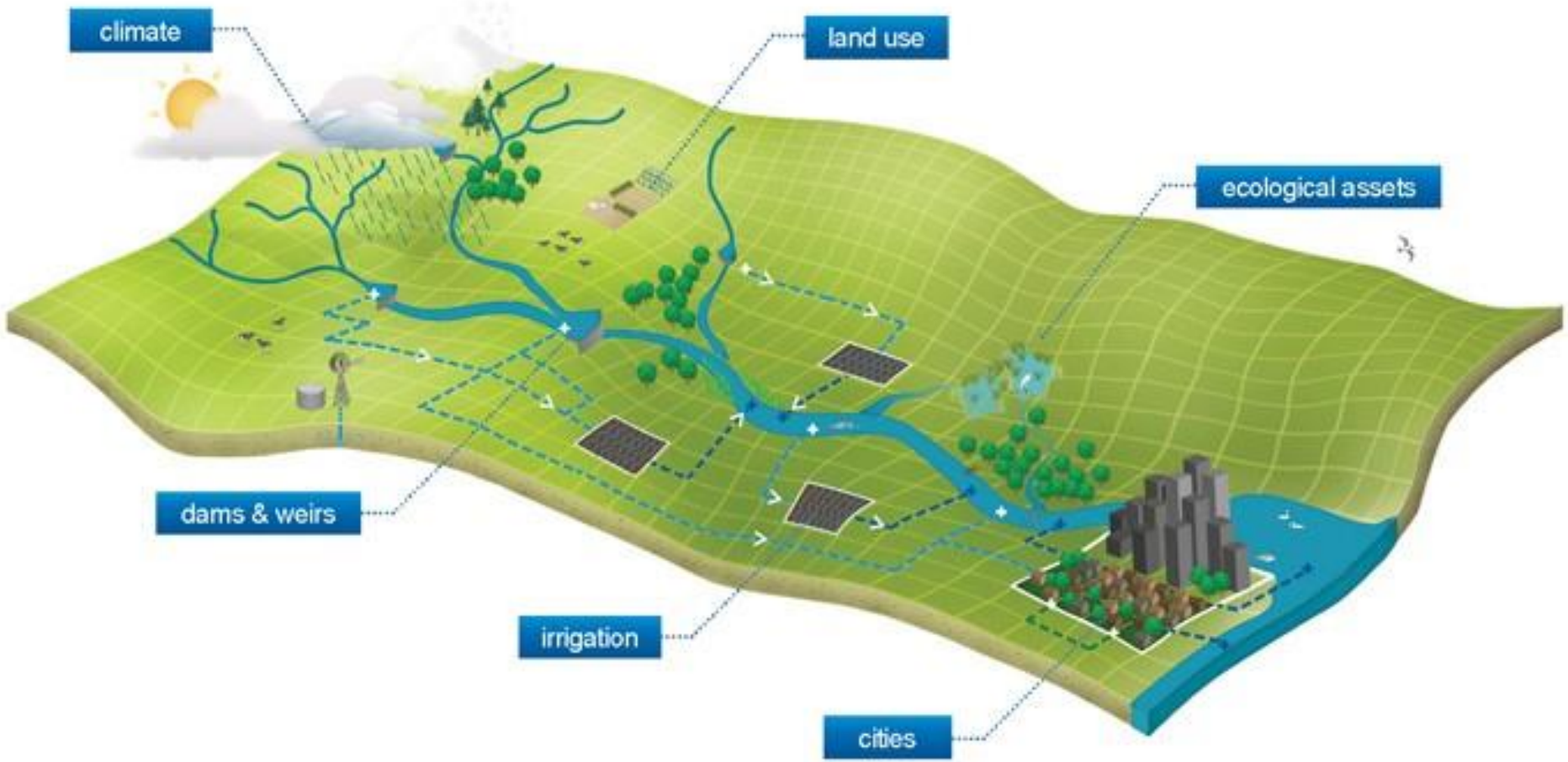
Hydrological models



Ingredients of a model

Forcing data
(rain & sunshine)

- Voluminous
- Various sources
- Time dependent
- Different formats
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Parameter sets
(soil type, land use, …)

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- Variable names
- Inconsistencies
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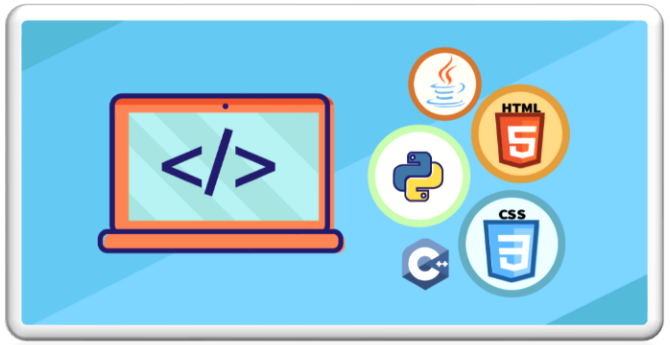

Model implementation
(computer code)

- Various programming languages
- Representation of processes
- Different variable names
- Numerics/discretization
- …

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With eWaterCycle

Common model interface

No need to “learn” a new model/language

bmi

gRPC

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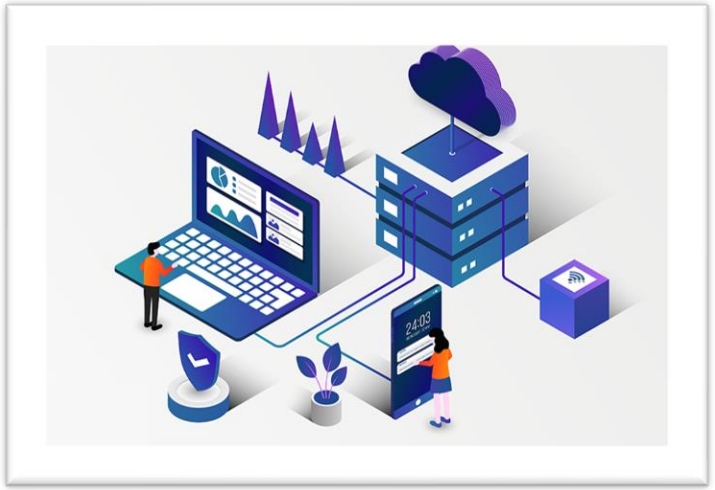
Online modelling environment



No need to install or download anything

bmi gRPC SURF ANSIBLE jupyterhub terria

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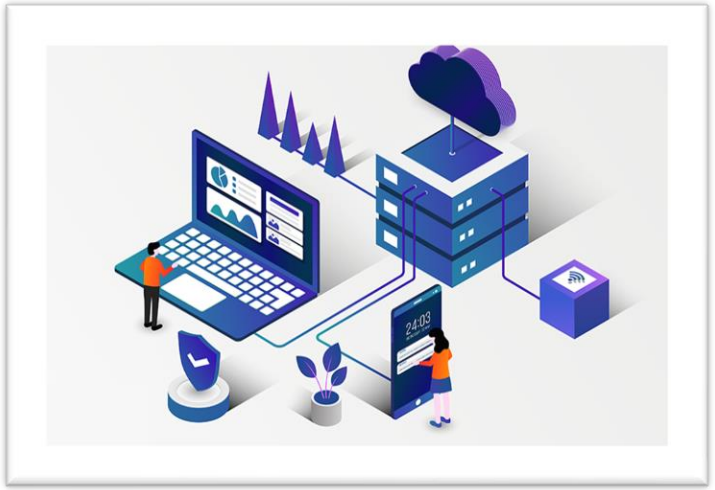

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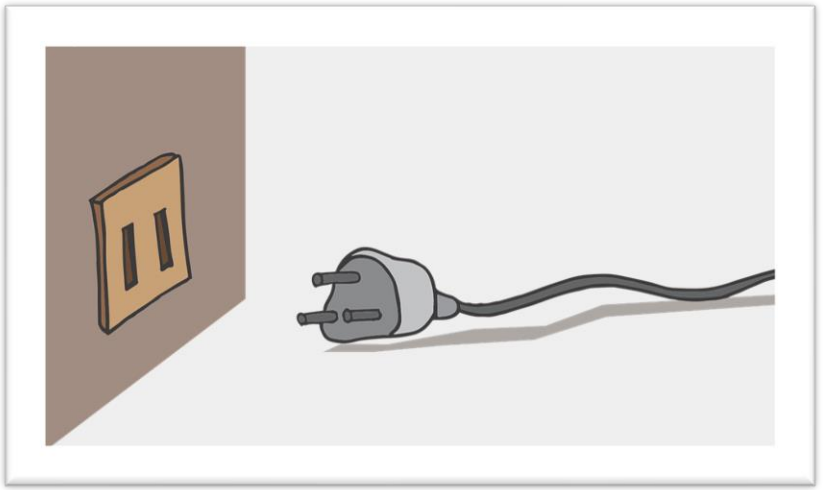
Build in preprocessing pipelines



No need to worry about converting data to the right format

bmi · gRPC · SURF · ANSIBLE · jupyterhub · terria · ESMValTool Earth System Model eValuation Tool

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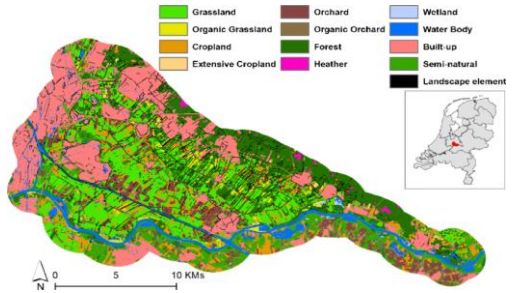
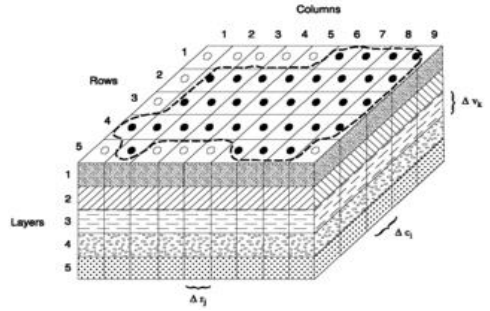
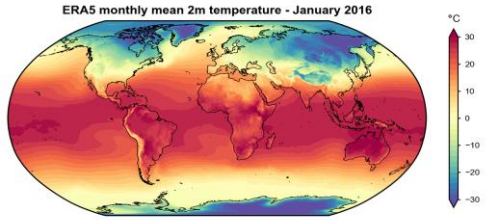
ewatercycle.parameter_sets



ewatercycle.models



ewatercycle.forcing

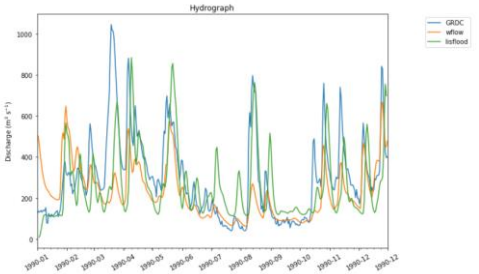


ewatercycle.observations

GRDC USGS

jupyterhub

ewatercycle.analysis



Conclusion

By removing barriers in models and datasets

…eWaterCycle brings back the joy in using hydrological models

… for the benefit of science and society

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“Empowering researchers across all disciplines through innovative research software”

eWaterCycle

ITC – eScience Symposium

Contact Person

Peter Kalverla

p.kalverla@esciencecenter.nl