

# bryne - prototyping reusable solvers for coupled multiphysics PDE models

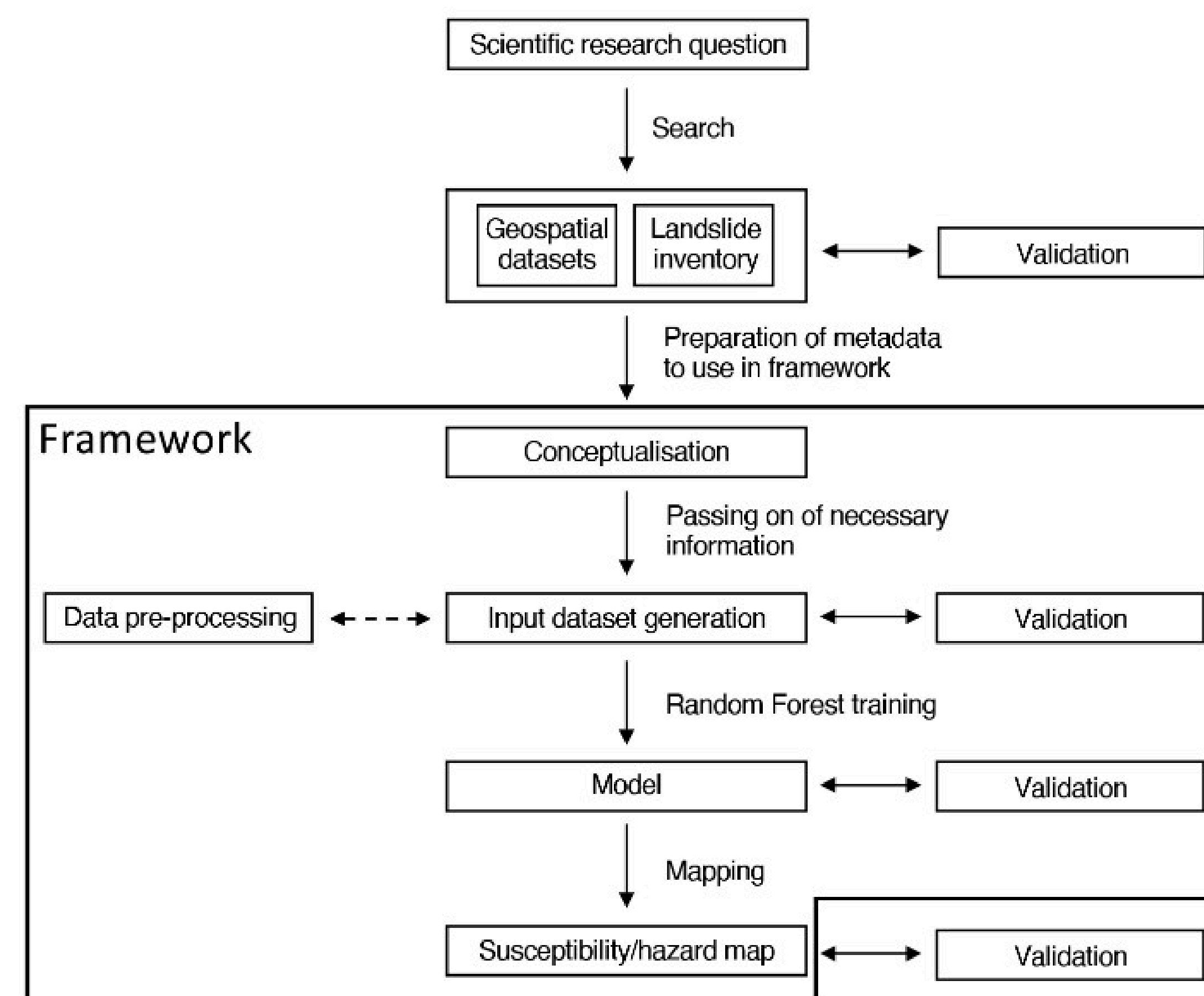
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FEM, Multiphysics Simulation



## Schematic Flow Chart



## Features

- handles geospatial data
- probabilistic susceptibility mapping
- shallow landslides
- dataset management
- One-hot or ordinal encoding
- Supports parallel prediction

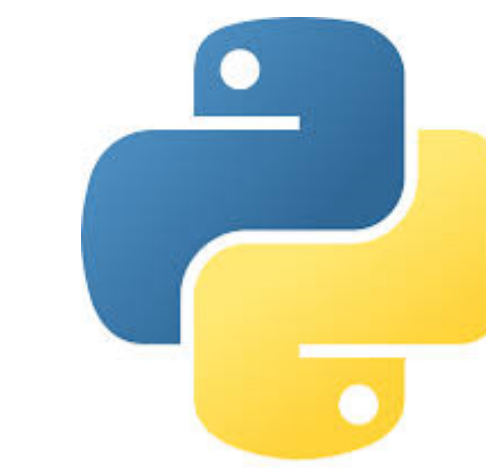
# bryne

[1]

- probabilistic landslide susceptibility assessment
- Geo-environmental hazard modeling
- machine learning + geospatial preprocessing
- training, prediction, map visualization
- Reproducible runs with saved settings

## Framework

Available as plain code and GUI version.)



Python-based modular framework can be complemented with individual modules.

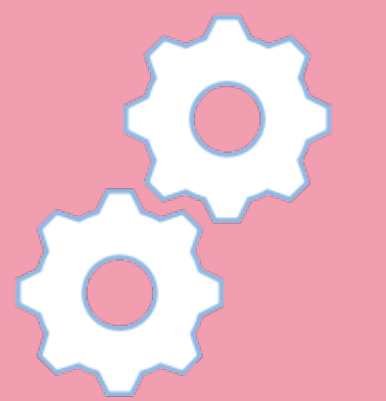
## Bibliography

- [1] B. Terschanski, R. Klöfkorn, A. Dedner, and J. Kowalski, “Bryne: sustainable prototyping of finite element models - Software release.” [Online]. Available: <https://doi.org/10.5281/zenodo.15789249>

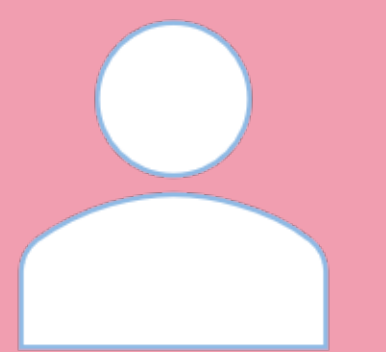
## Overview



User Manual



Example



Contact

GitLab



## Acknowledgments



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for the Environment, Climate Action,  
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