

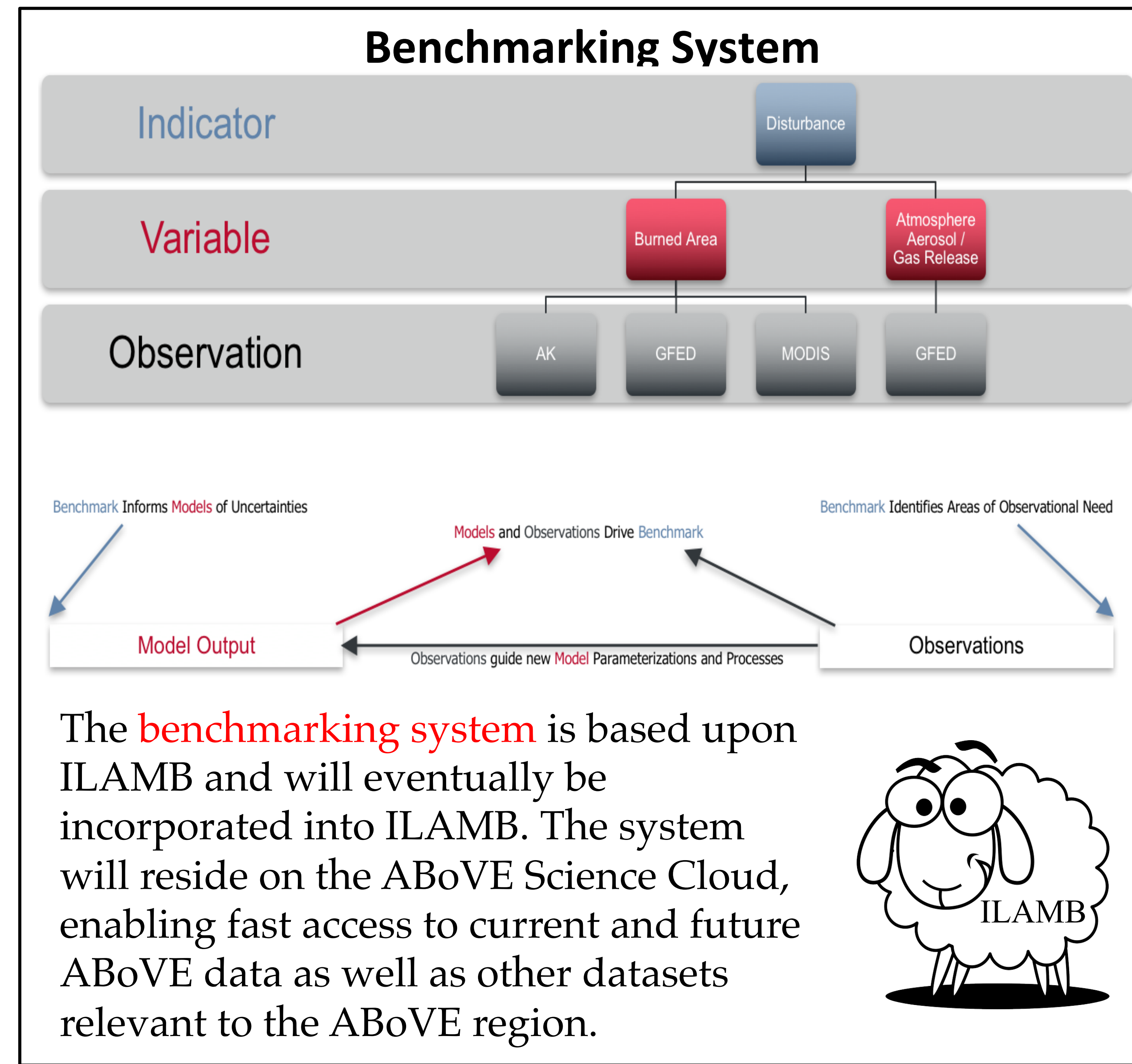
The Model-Data Integration Framework for NASA's Arctic Boreal Vulnerability Experiment (ABOVE)

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Motivation

Address Key **ABOVE** Indicators

- How are the magnitudes, fates, and land-atmosphere exchanges of **carbon pools** responding to environmental change, and what are the biogeochemical mechanisms driving these changes?
- What processes are contributing to changes in **disturbance** regimes and what are the impacts of these changes?
- How are flora and fauna responding to changes in biotic and abiotic conditions, and what are the impacts on **ecosystem** structure and function?
- What are the causes and consequences of changes in the **hydrologic system**, specifically the amount, temporal distribution, and discharge of surface and subsurface water?
- What processes are controlling changes in the distribution and properties of **permafrost** and what are the impacts of these changes?



Datasets

Examples of dataset observation sources

Process

Model Upload

User Uploads Model to Benchmarking System

Benchmarking System

Benchmarking System Calculates Scores, Makes Graphics, and Builds Custom Webpage

User Updates Model Based on Benchmark Results

User Views Results on Custom Webpage

Benchmarking Results: CLM

Overall Score	0.31	Disturbance	0.28	Variable Score	0.28	AK	GFED	MODIS	GFED Score	0.28
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Version 1.0 → Version 1.5 → Version 2.0