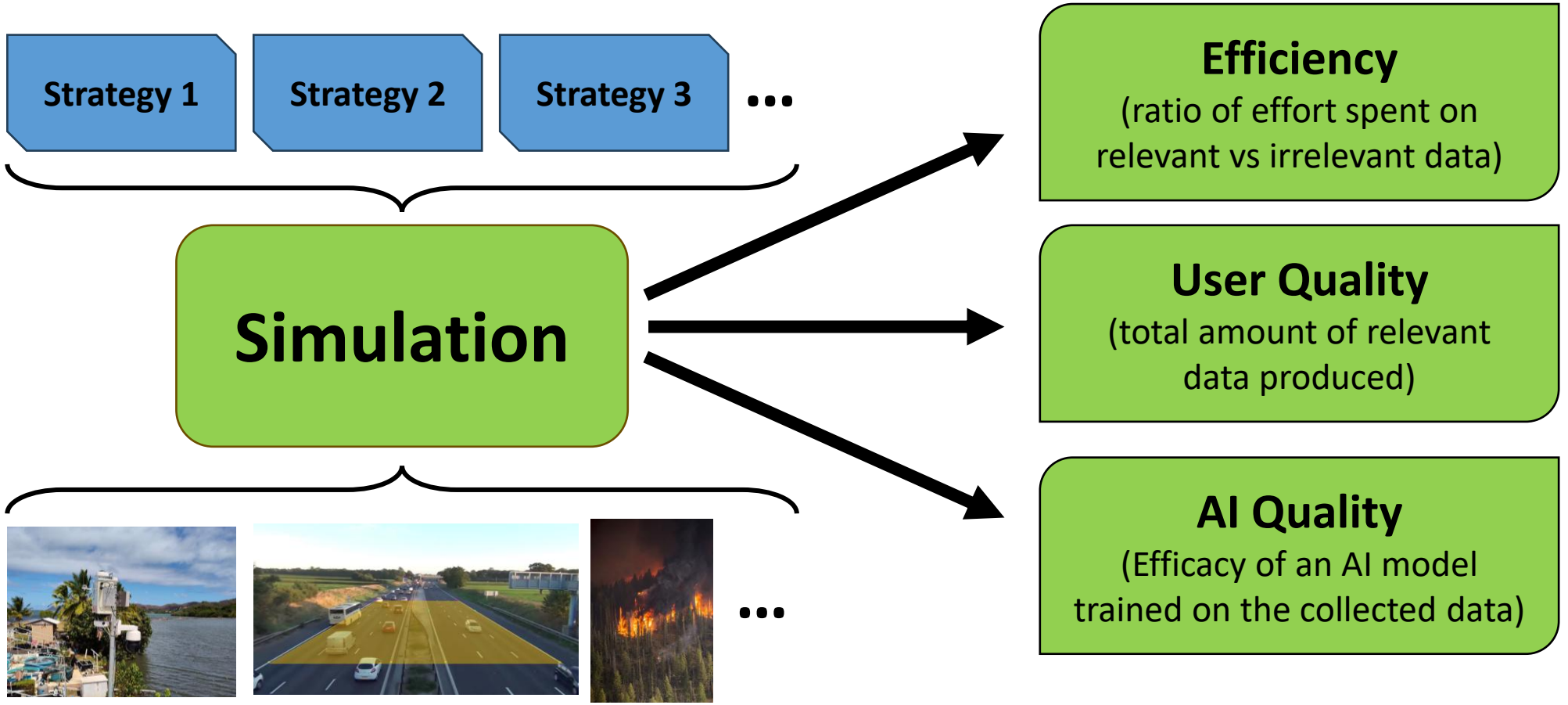
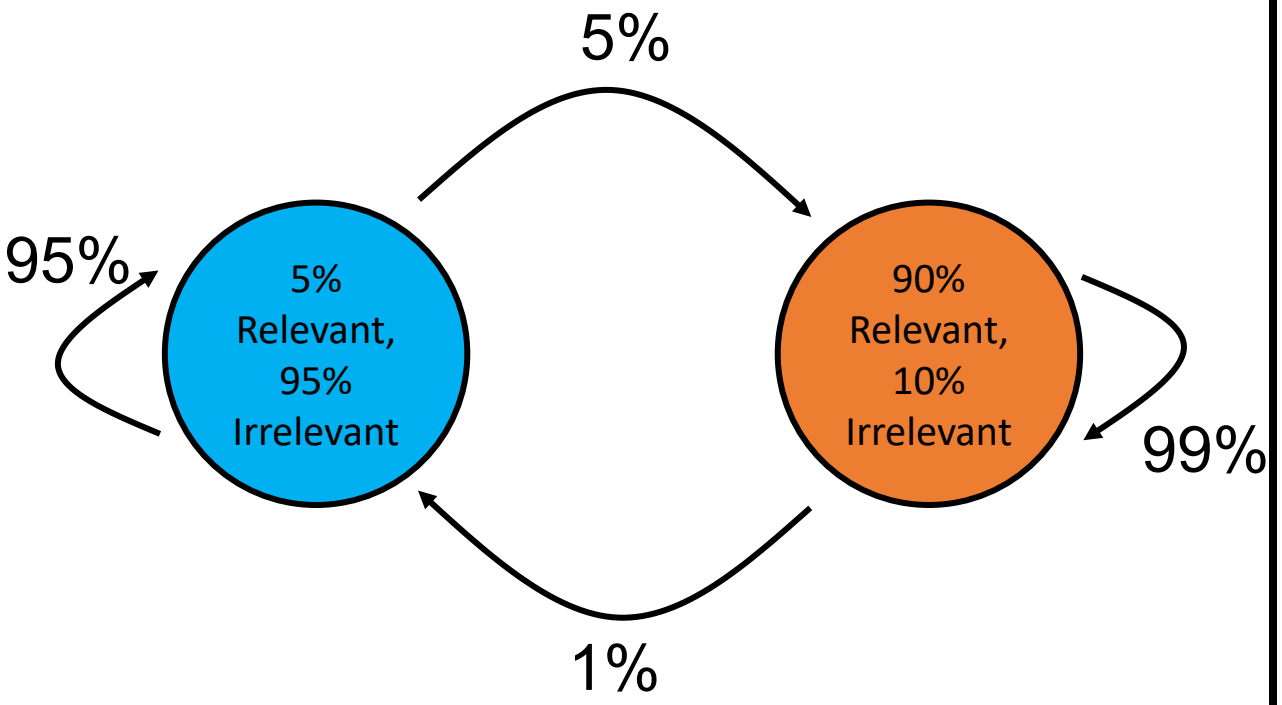
How do Different Data Collection Strategies Affect the Quality of AI Models for Environmental Sensing?

To investigate our strategies' performance, we will use a **simulation** motivated by actual SAGE applications to analyze the *efficiency* and *quality* of the collected data.



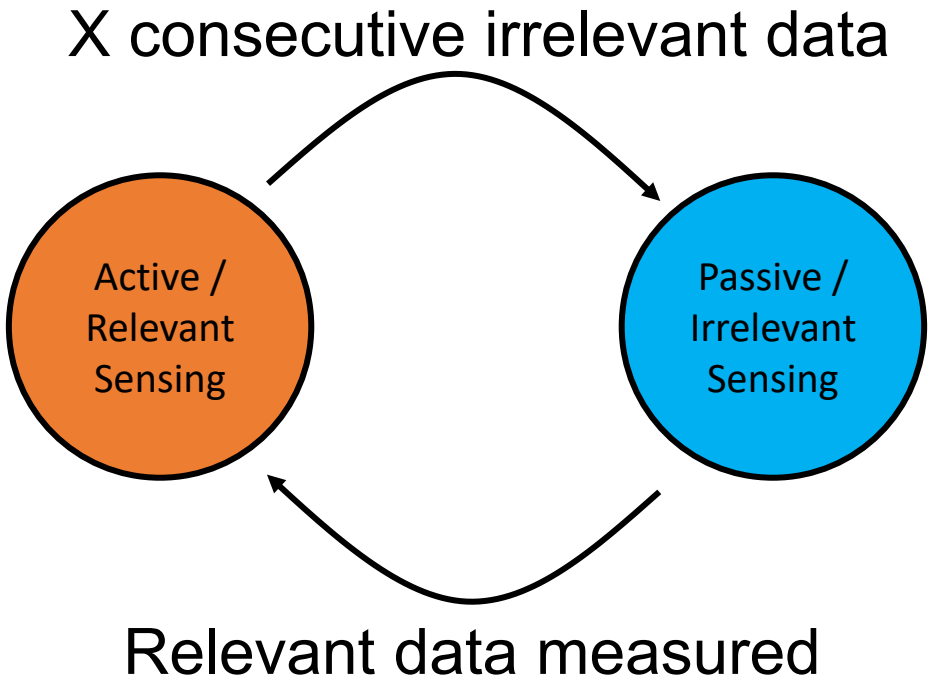
Environmental Model

Purely Markovian



Data-Collection Strategy

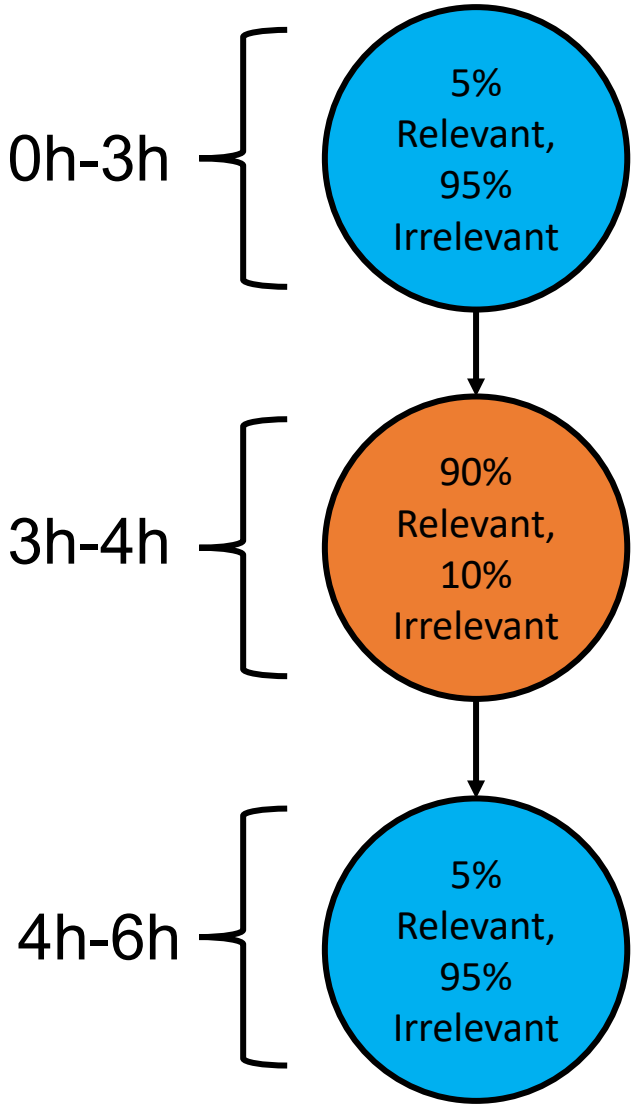
Purely Markovian



Are measurements always accurately classified?

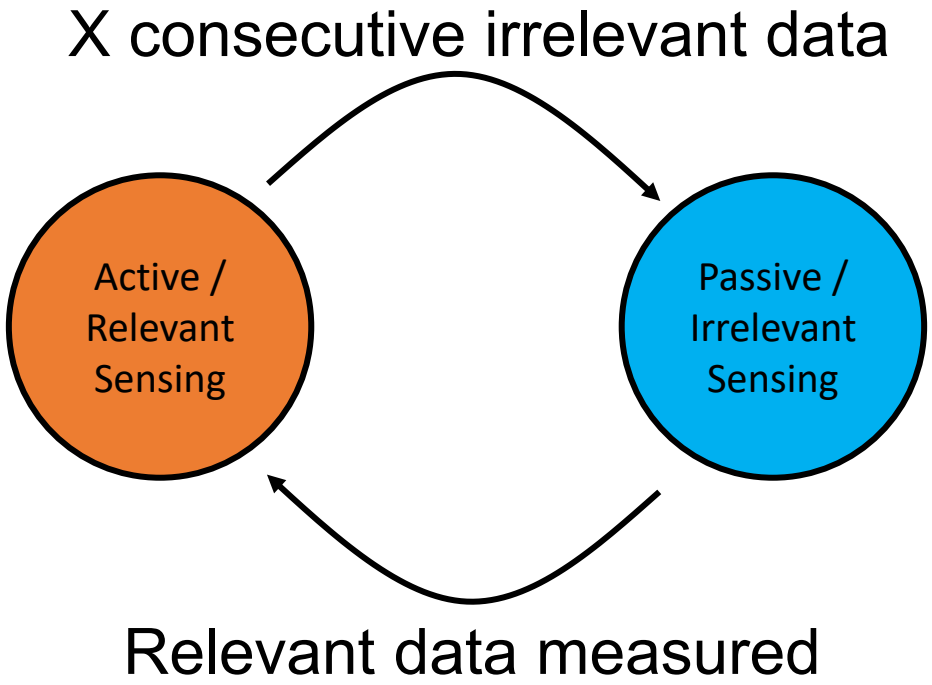
Environmental Model

Correlations in Time (Preset)



Data-Collection Strategy

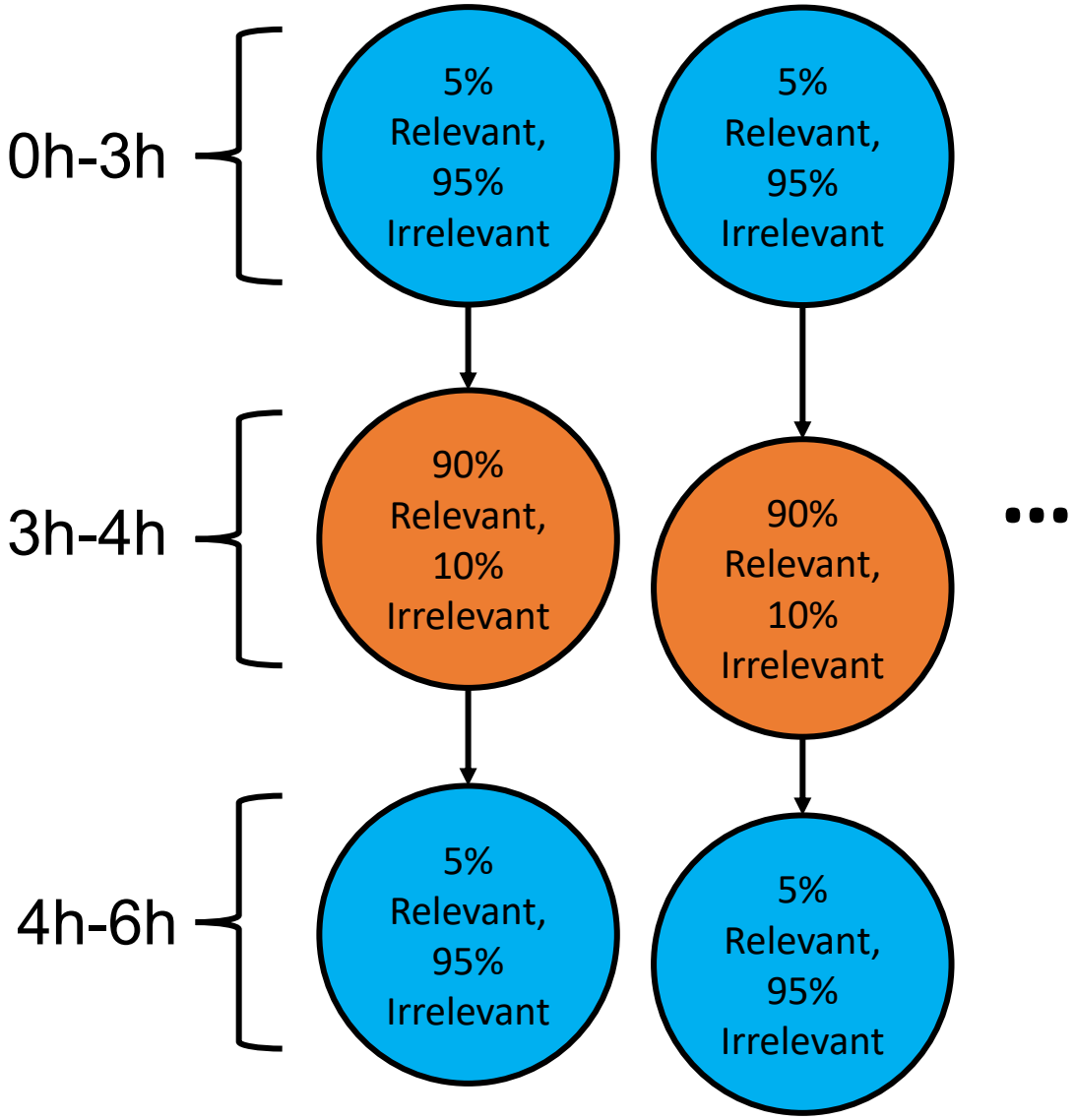
Purely Markovian



If the active time periods are known, pre-program them in?

Environmental Model

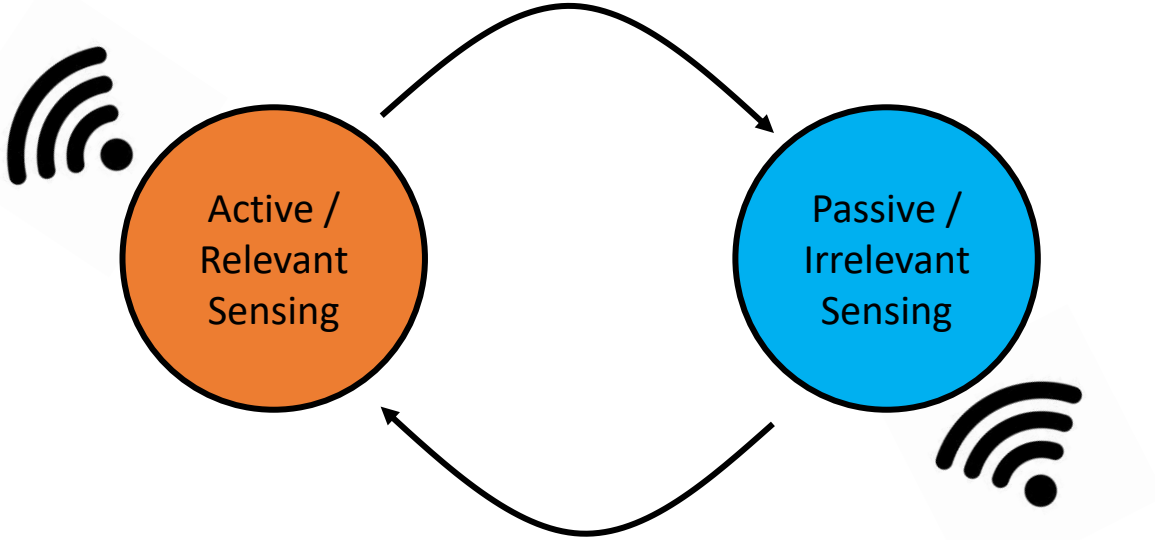
Correlations in Space (Preset)



Data-Collection Strategy

Listen for Neighbors

X consecutive irrelevant data



Relevant data measured
OR Neighbor is Active