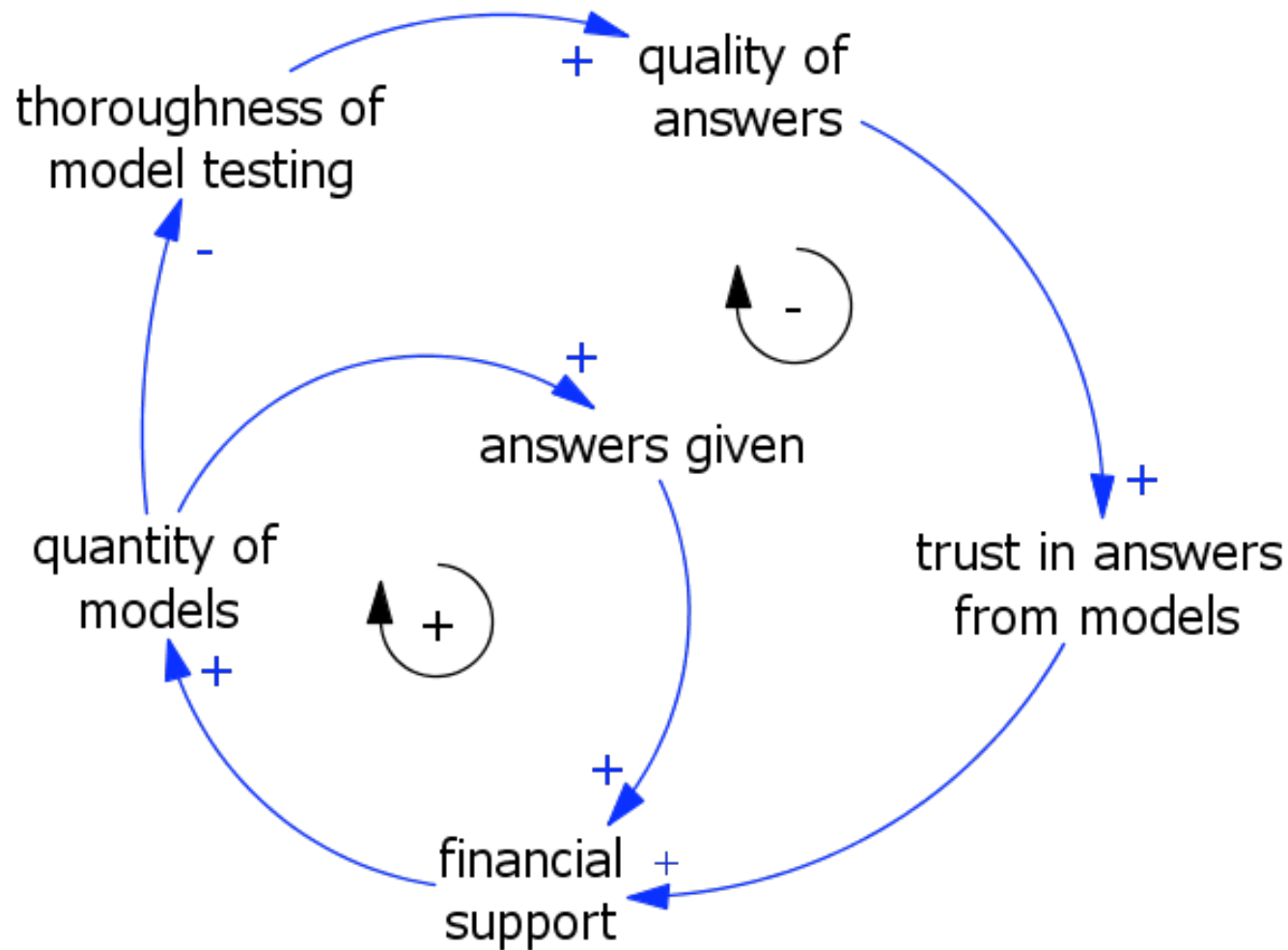


Challenges

- The world is confusing, but we need to know how to act anyway
- Model conclusions in which we have confidence are not adopted (carbon accumulation)
- Model conclusions that we are confident are adopted (CGE)
- Building models is slow, inefficient and costly

How to beat Microsoft?



One winning theory?

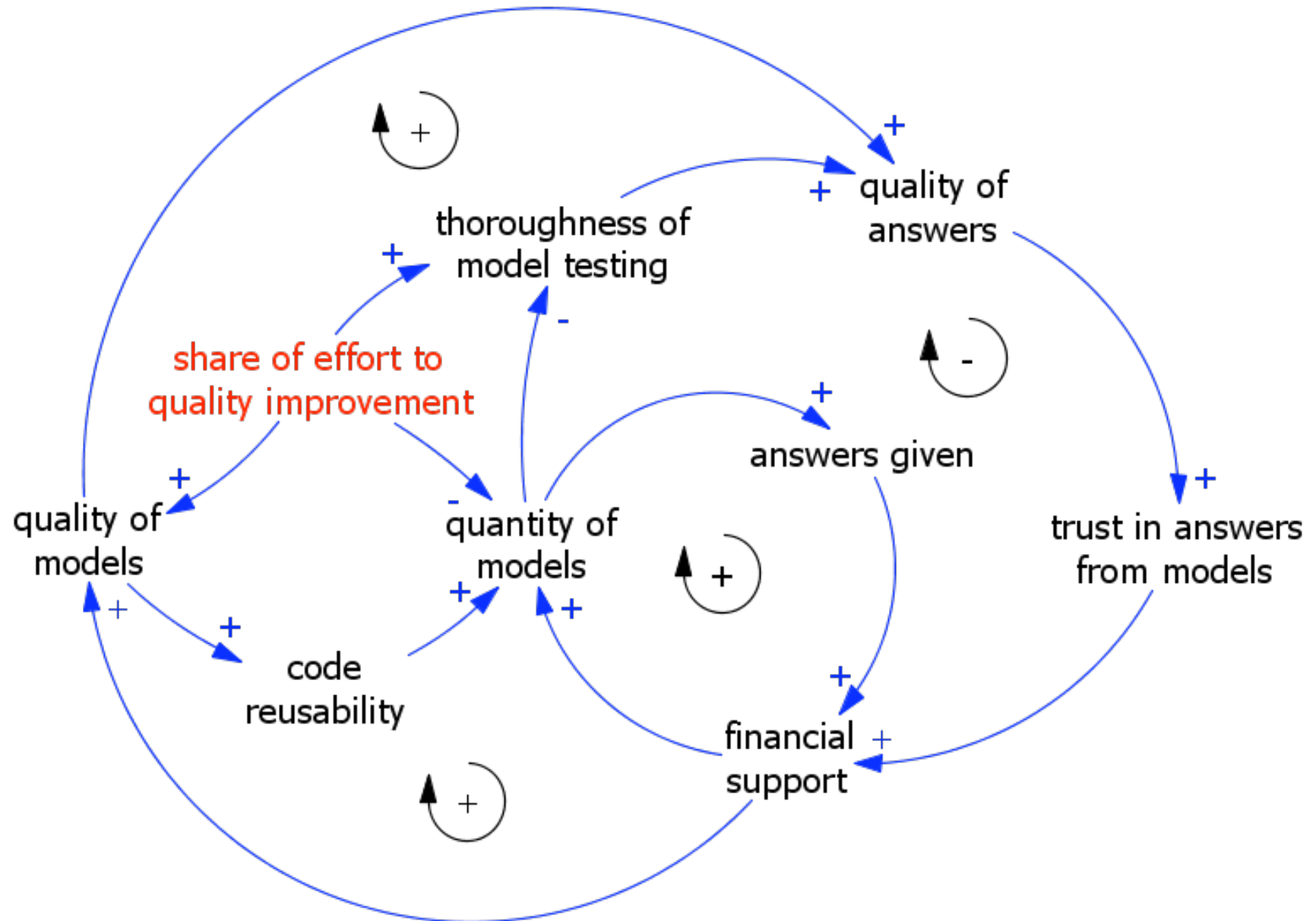


Figure 11 **Some Positive Feedback Loops that Create Path-Dependent Behavior**

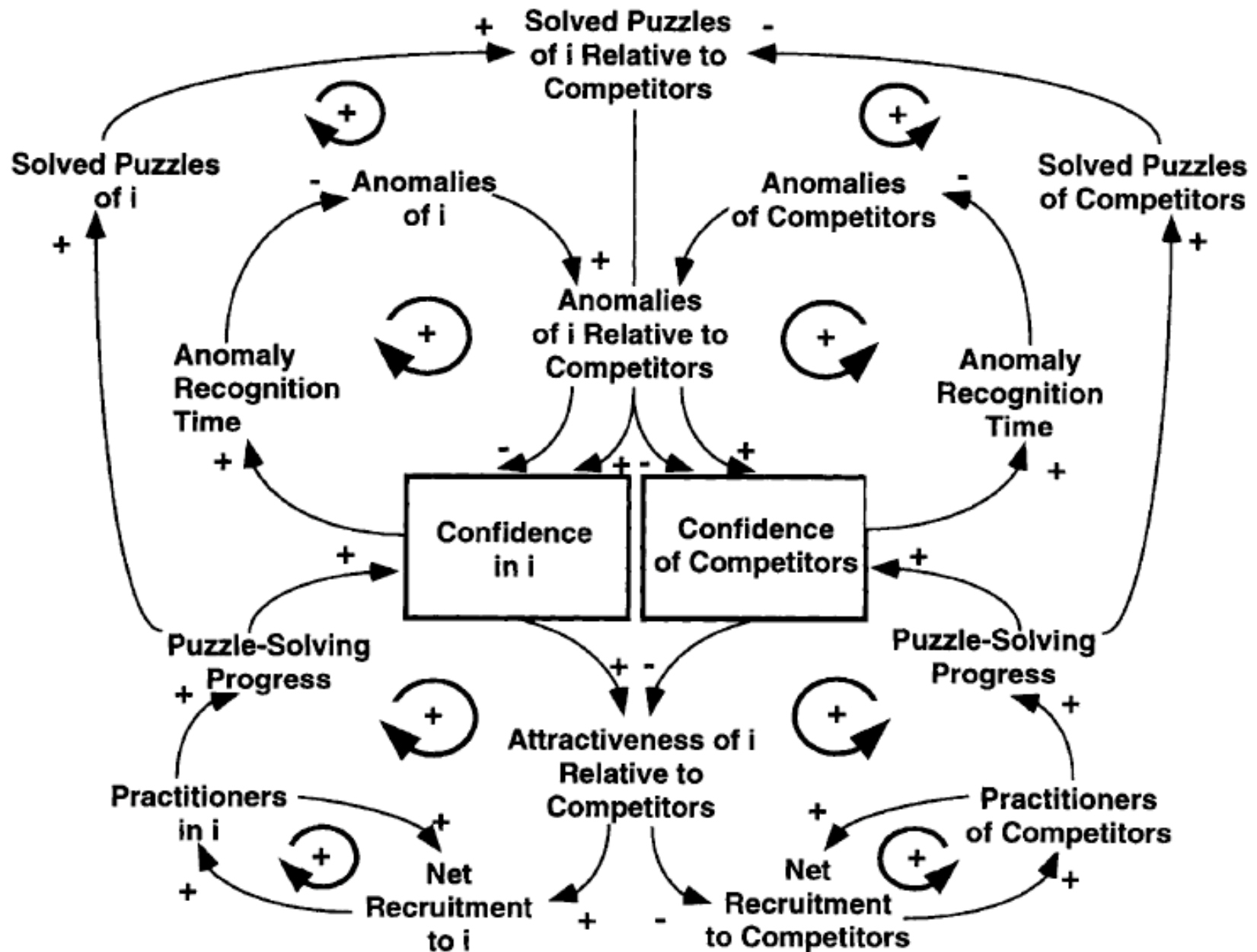
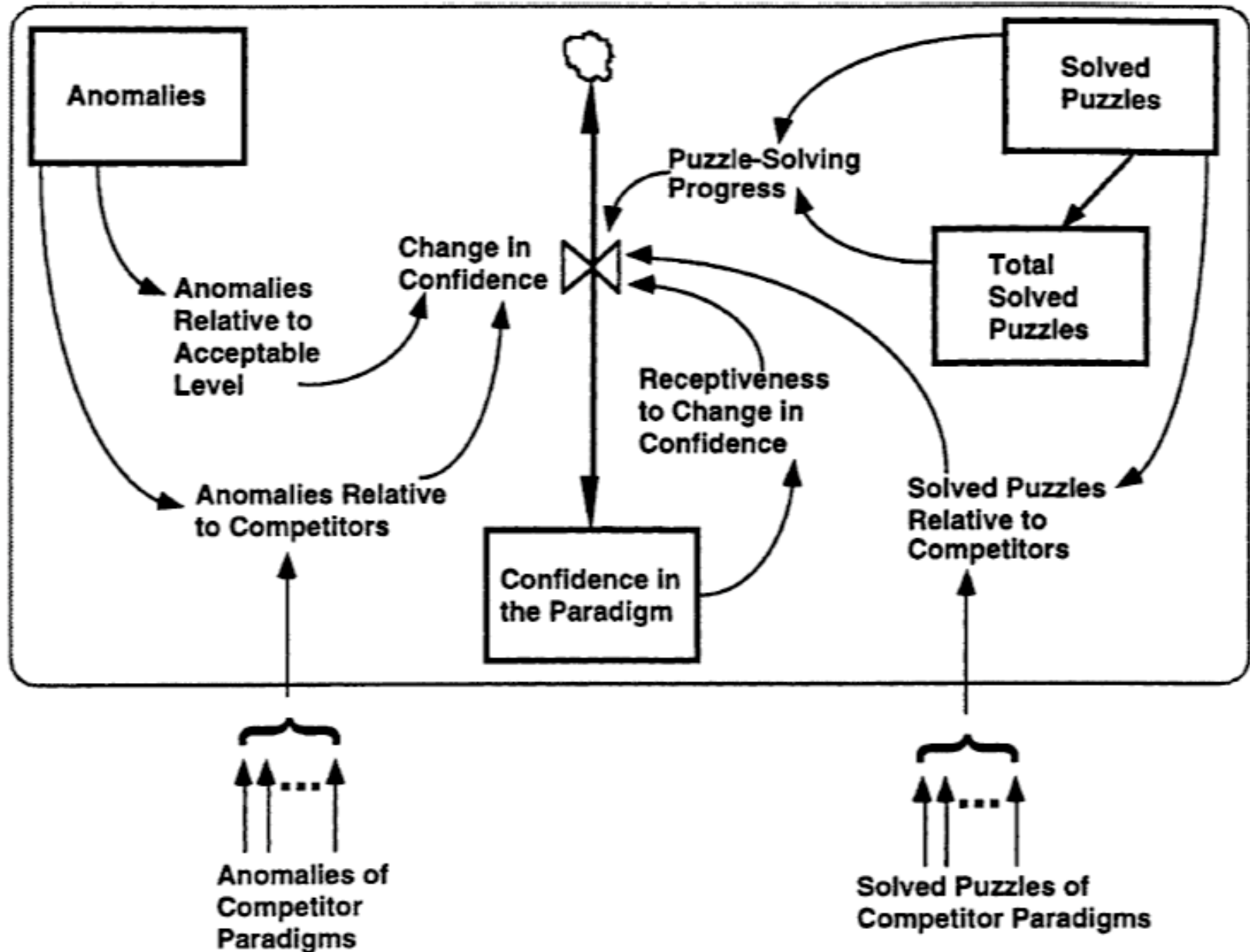


Figure 2 Internal and External Determinants of Confidence in a Paradigm



Program Areas

- CAS
- Tools - model characterization, specification, formalization, federation, reuse, cross-disciplinary discovery
- Communication
- Grid - Massive scale computing

Progress on multiple fronts

	Near Term	Long Term
CAS	New models	Modeling platform?
Tools	Adopt existing tools (e. g., version control) Promote standards	New <i>types</i> of languages
Communication	Disseminate existing models	New tools for dissemination of results Build ties to other disciplines
Grid	?	?

Stakeholders

