

LONG-TERM ENERGY PLANNING FOR DEVELOPING COUNTRIES BASED ON OPEN-SOURCE MODELS



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UNIVERSIDAD
MAYOR DE SAN SIMÓN
Ciencia y Conocimiento desde 1832

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INTRODUCCION (WHY?)

- Developing countries are currently highly dependent on **black-box / licenced tools**
- There is a **lack of resources** for creating, maintaining and training personnel in specialized tools
- As the energy systems evolve, requirements for proper **planning become more complex** and technically demanding
- A sustainable **transition of the energy sector** is a critical aspect in our current environmental context
- A wide **variety of tools** currently exists, each of them with their own particularities and potential

Open-source models can help address these problems in a practical and approachable manner

OBJECTIVE (WHAT?)

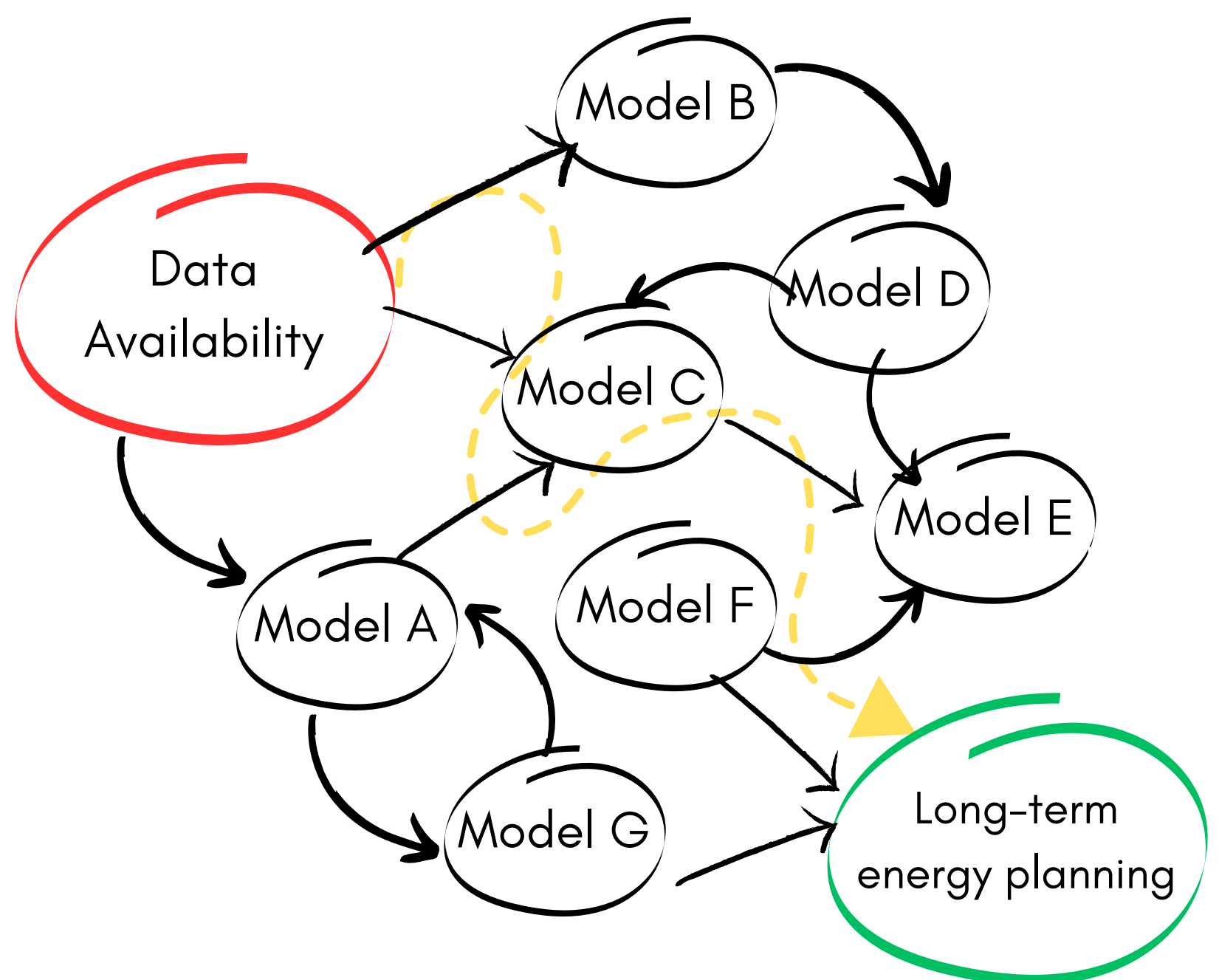
Provide a simple, comprehensive, accesible and reproducible methodology (toolkit of models) to allow developing countries to tackle long-term energy planning endeavors

ACTORS (WHO?)

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METHODOLOGY (HOW, WHEN AND WHERE?)

- 1) Explore available long-term energy modelling tools and their applicability to developing countries
- 2) Evaluate capabilities and synergies between existing models, data availability and output required
- 3) Structure a cross-modelling framework with selected tools based on their characteristics and applicability
- 4) Develop a case study for application and analysis of the framework
- 5) Validate results with local actors



The expected timeframe for the work is a total of 4 years (January 2023 - December 2026)

The work is considering Bolivia and the time-frame 2020-2050 as the initial case study for implementing the methodology, however, future work and collaboration in LAC would be ideal

Some critical questions... Which models should be considered? How to select them? Are models complementary? How can they be implemented? Are results be sufficient?

