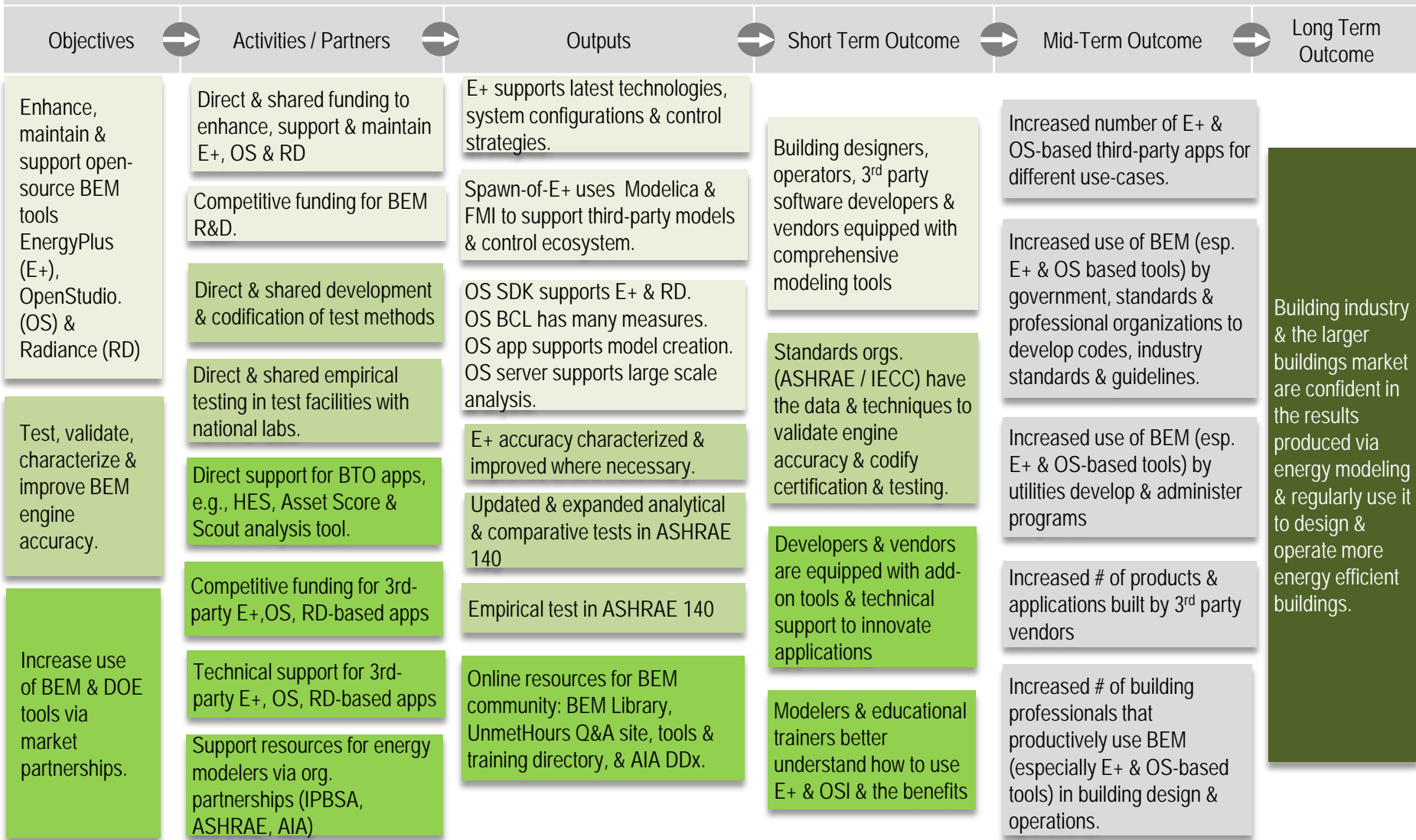


The Building Energy Modeling (BEM) Sub-Program develops energy modeling tools and resources to support building design, code development and building operations to save energy.

External Influences: DOE budget, Spin-off modeling tools & applications, Energy prices, Legislation / Regulation, Private sector R&D





Building Energy Modeling Research and Development Logic Model

OBJECTIVE	ACTIVITIES	KEY OUTPUT	SHORT-TERM OUTCOME	MID-TERM OUTCOME	LONG-TERM OUTCOME
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Improve Open-Source Tools

BEM R&D; EnergyPlus, Modelica, and OpenStudio

Improved EnergyPlus, Modelica, and OpenStudio

Accessible DOE tools

Foundational DOE Tools

Improve BEM Engine Accuracy

Develop test methods

National labs test empirical suites

Data, simulation, and empirical suites meet ASHRAE 140

Validated products

Accurate BEM engine

Market depends on tool outputs to improve efficiency

Increase tool usage

Create add-on tools

Support and expand user community

Tools meet market needs

Best practices

Tool benefits understood

Tools widely used

EXTERNAL INFLUENCES

- DOE Budget
- Spin-off Products
- Market Incentives
- Legislation / Regulation
- Energy Prices
- Private R&D