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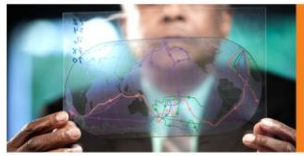


Evaluation of Market Transformation Programs

Karen Horkitz

March 20, 2016

Agenda

- Learning Objectives
- Evaluation Concepts
- Planning & Conducting a Market Progress Evaluation
- MT Indicators Exercise
- Wrap-up

Learning Objectives

Understand the role and importance of evaluation in market transformation

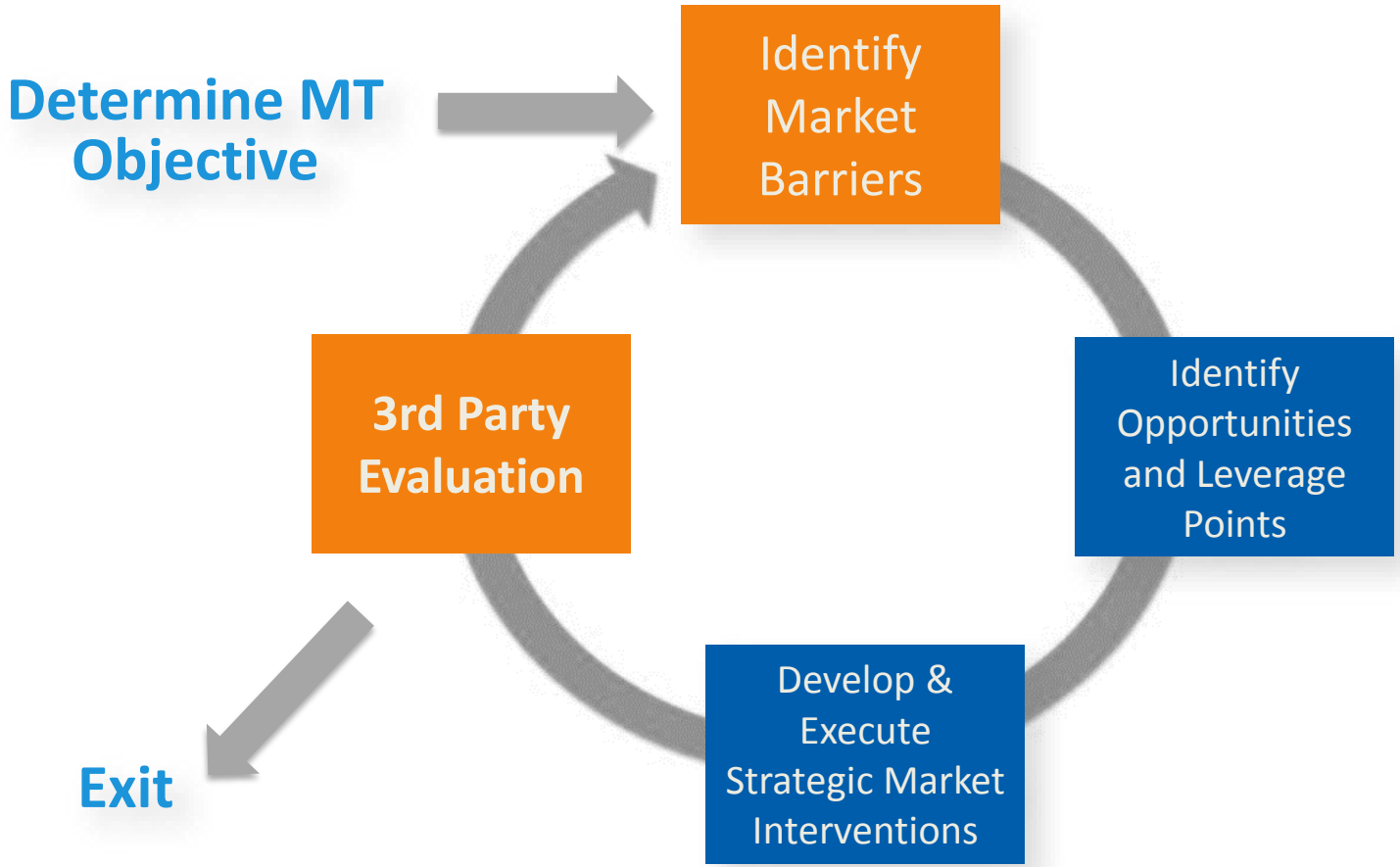
Understand foundational evaluation concepts and distinguishing features of MT evaluation

Learn how to plan for evaluation, develop market progress indicators

Become familiar with typical MT evaluation methods

Evaluation Concepts

Market Transformation Process



Evaluation:

*The **systematic** acquisition and assessment of **information** to provide useful **feedback** about something.*

William Trochim, Ph.D. Cornell University

The Purpose: Provide unbiased, independent, empirically-based information to decision-makers

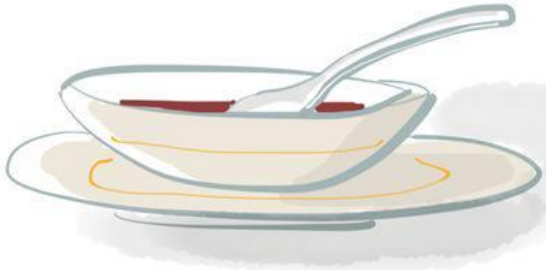
(to help them make better decisions!)

Program Evaluation Uses

- Document the stated program activities, accomplishments, and outcomes
- Determine if program is being implemented as planned
- Track program/market progress
- Understand changing market conditions
- Assess program impacts, market effects, cost-effectiveness
- Identify opportunities for program enhancement or improvement
- Meet a statutory or regulatory requirements

FORMATIVE SUMMATIVE

WHEN THE **CHEF** TASTES THE SOUP



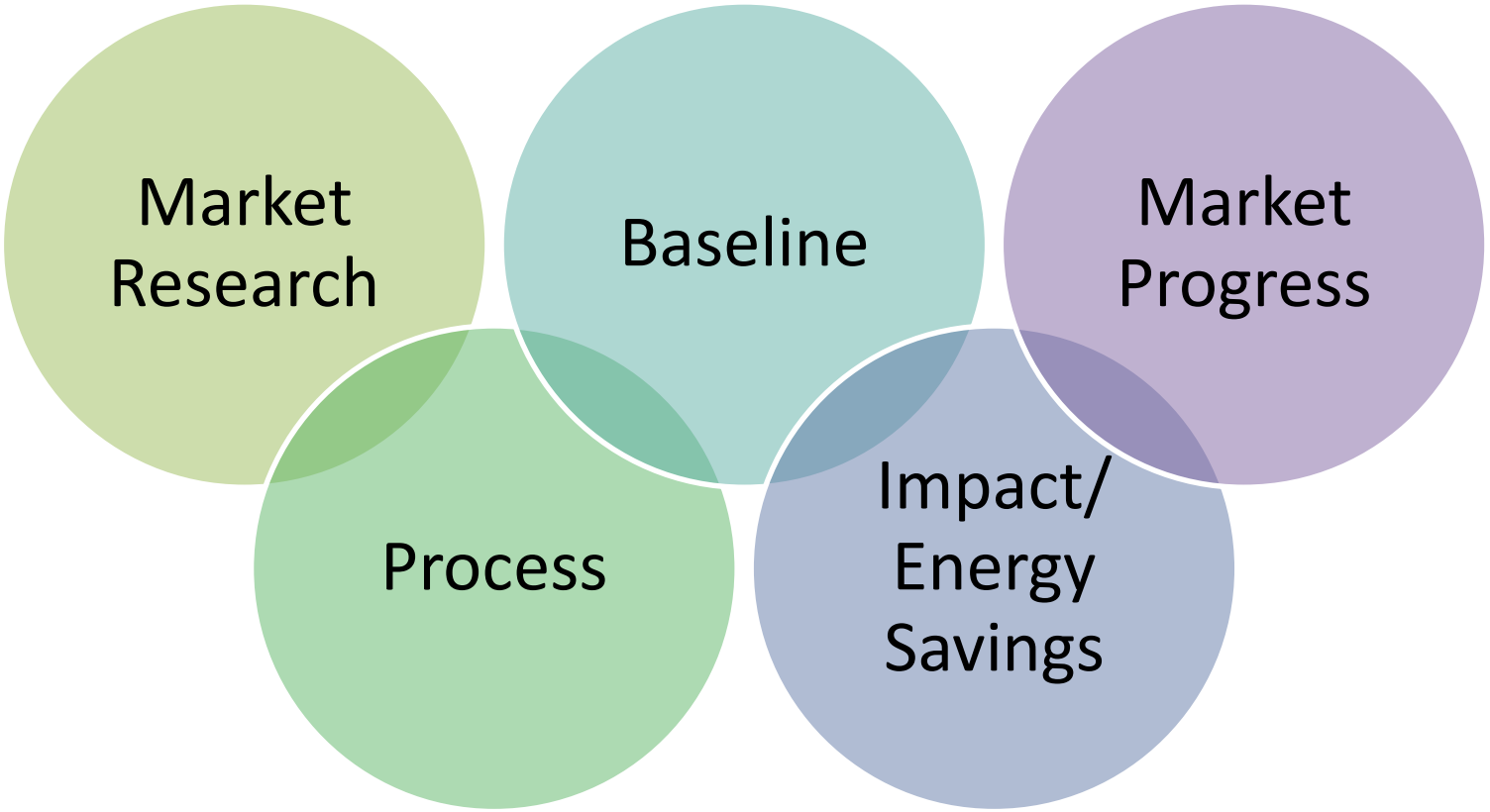
WHEN THE **GUESTS** TASTE THE SOUP

@bryanMMathers

FROM STEVE WHEELER'S BLOG "THE AFL TRUTH ABOUT ASSESSMENT"

Types of Evaluations

Types of Evaluation



Market Research/Characterization

Purpose

Inform program design to maximize success

Typical Methods

- Secondary research
- Interviews
- Surveys
- Social Network Analysis
- Segmentation Analysis
- Conjoint Analysis

Timing

Before launch, ongoing

Key Outcomes

- Market size estimates
- Market structure (e.g., supply chain/channels, influencers, actors)
- Identify market barriers, opportunities, points of leverage
- Understand target audiences, segments
- Understand customer awareness, preferences, motivations

Baseline Assessment

Purpose

Identify pre-intervention conditions: existing and forecast market adoption, to enable impact evaluation

Typical Methods

- Secondary data/ Industry forecasts
- Interviews
- Delphi panel
- Quantitative modeling

Timing

Before program intervention*

Key Outcomes

- Estimate of naturally occurring market adoption- pre-program, and over time-absent program intervention ("counterfactual")
- Pre-program market conditions, behaviors, practices

Market Progress Evaluation

Purpose

Assess progress toward market transformation

Typical Methods

- Interviews
- Surveys
- Direct observation (e.g., behavior, marketing practices, shelf/floor surveys, site assessments/saturation studies)
- Market data analysis

Timing

Ongoing

Key Outcomes

- Similar to process evaluation
- Assessment of market progress vs. hypothesized
- Assessment of market barriers, opportunities
- Recommendations to improve program

Process Evaluation

Purpose

Identify opportunities to improve program design, implementation, operation, and delivery

Typical Methods

- Interviews
- Surveys
- Materials Review
- Tracking system/Data Review

Timing

During the program

Key Outcomes

- Documentation of program logic and operations
- Assessment of effectiveness against expected or planned performance (e.g., program activities, administration, satisfaction)
- Recommendations to improve program

Impact/Energy Savings Evaluation

Purpose

Quantify energy and demand savings, other benefits, and cost-effectiveness

Typical Methods

- Data collection - program files, surveys, billing information, M&V, deemed savings
- Engineering algorithms
- Statistical/econometric analysis
- Economic analysis

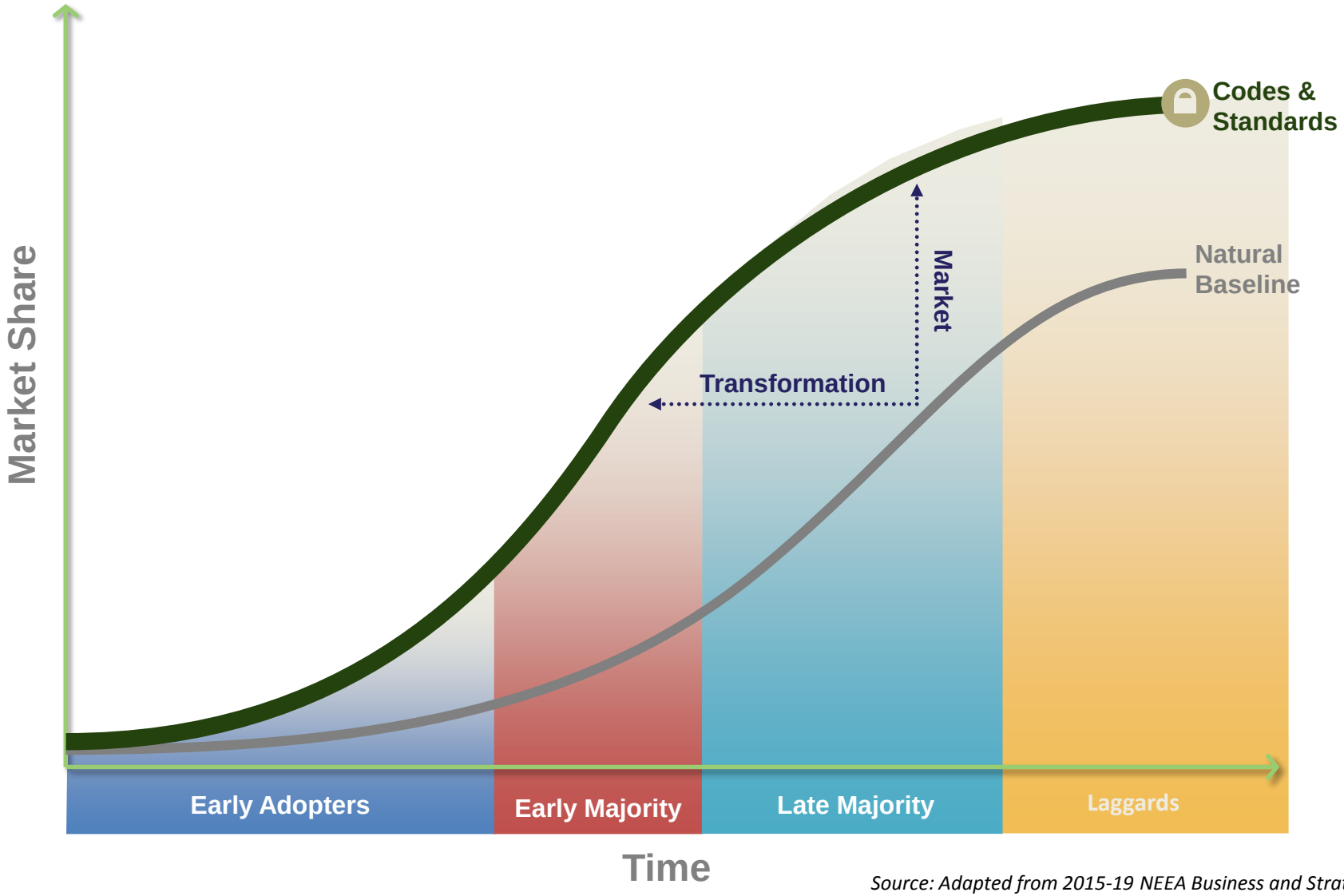
Timing

During pilot; periodic

Key Outcomes

- Net energy and demand savings attributable to program
- Non-energy benefits
- Cost-effectiveness

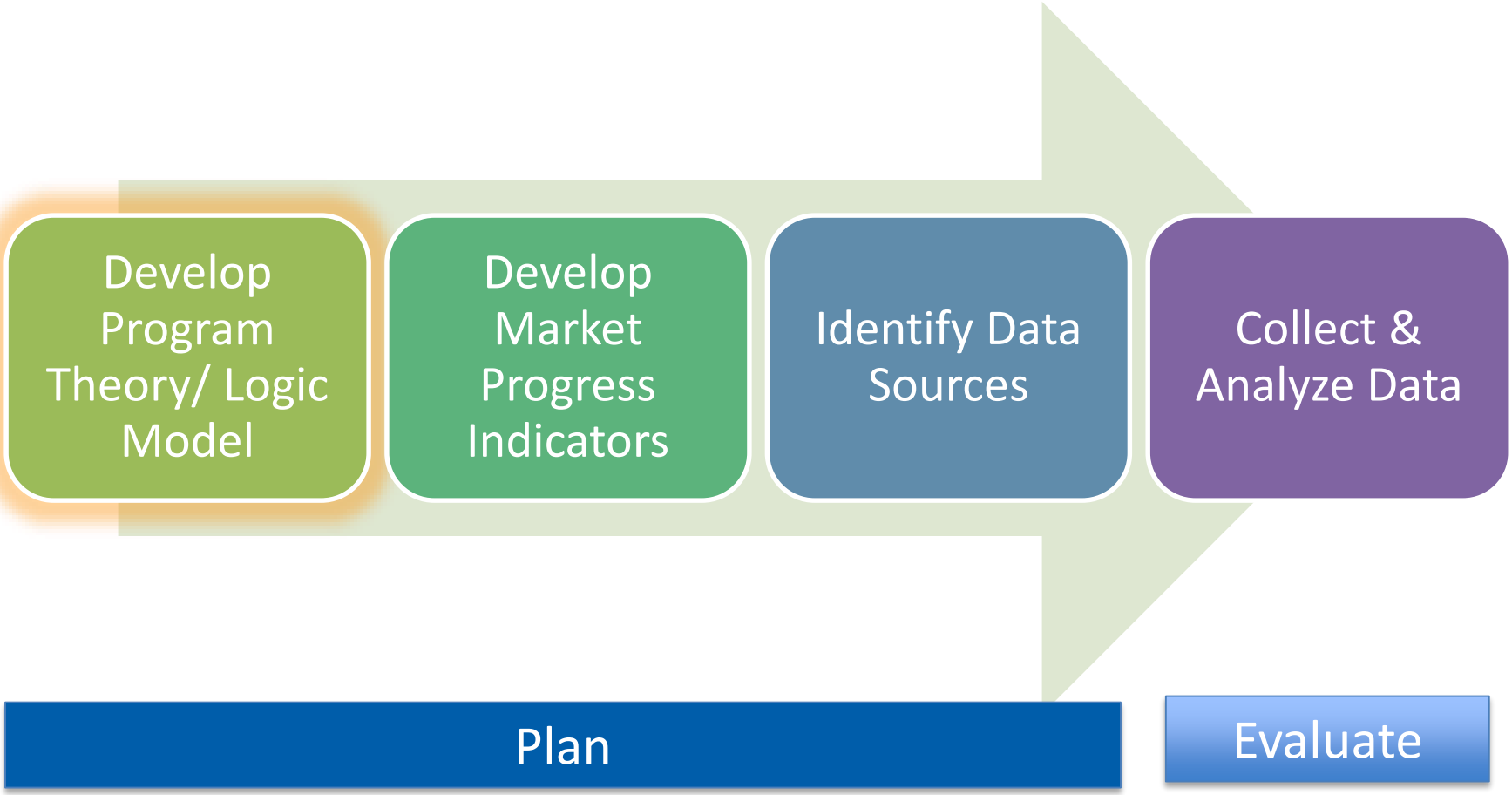
MT Evaluation in Context



Source: Adapted from 2015-19 NEEA Business and Strategic Plans, http://neea.org/about-neea/neea-strategic-planning.

Planning & Conducting a Market Progress Evaluation

Market Progress Evaluation



Logic Models

"A logic model is a systematic and visual way to present and share your understanding of the relationships among the resources you have to operate your program, the activities you plan, and the changes or results you hope to achieve."

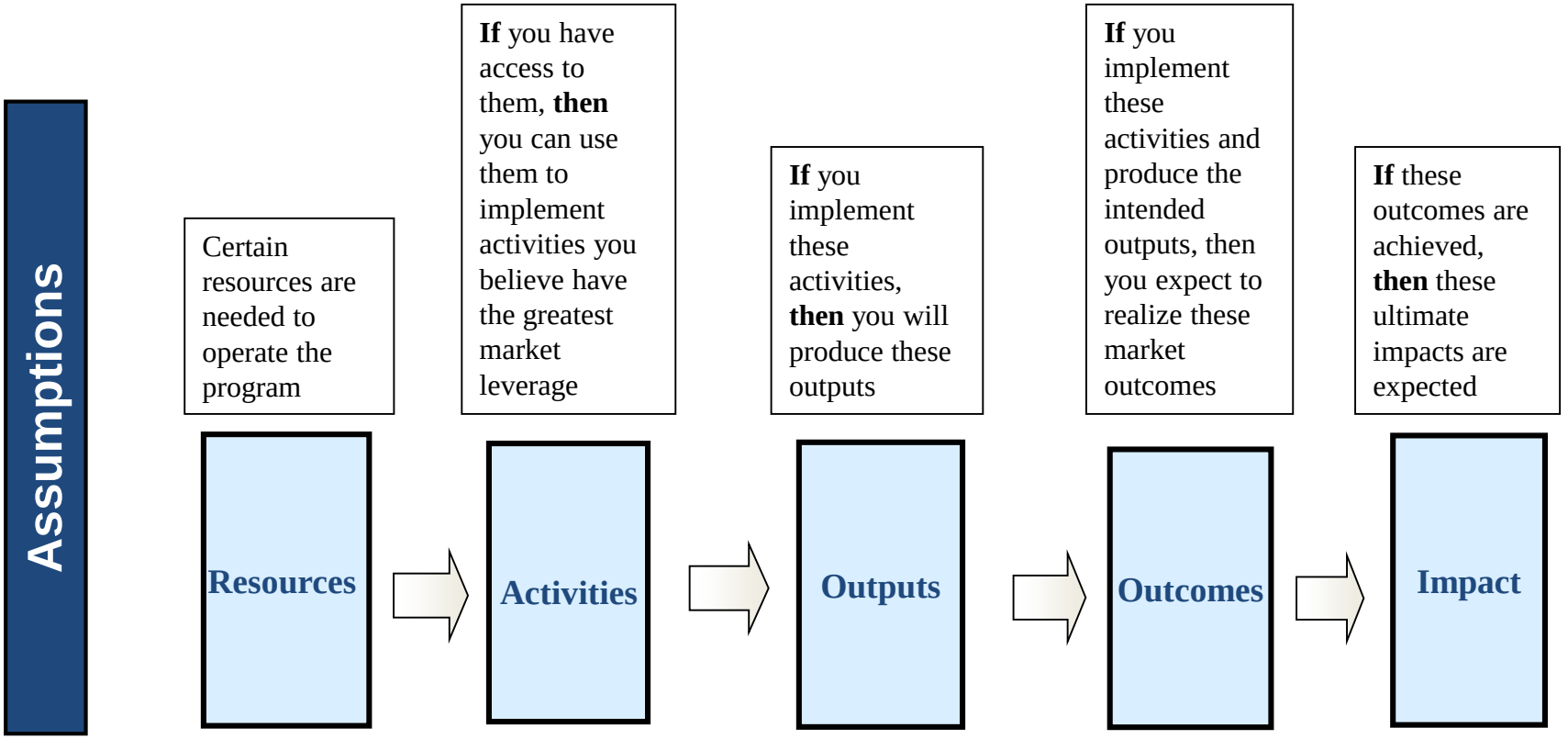
W.K. Kellogg Foundation Logic Model Development Guide

Role of Logic Models

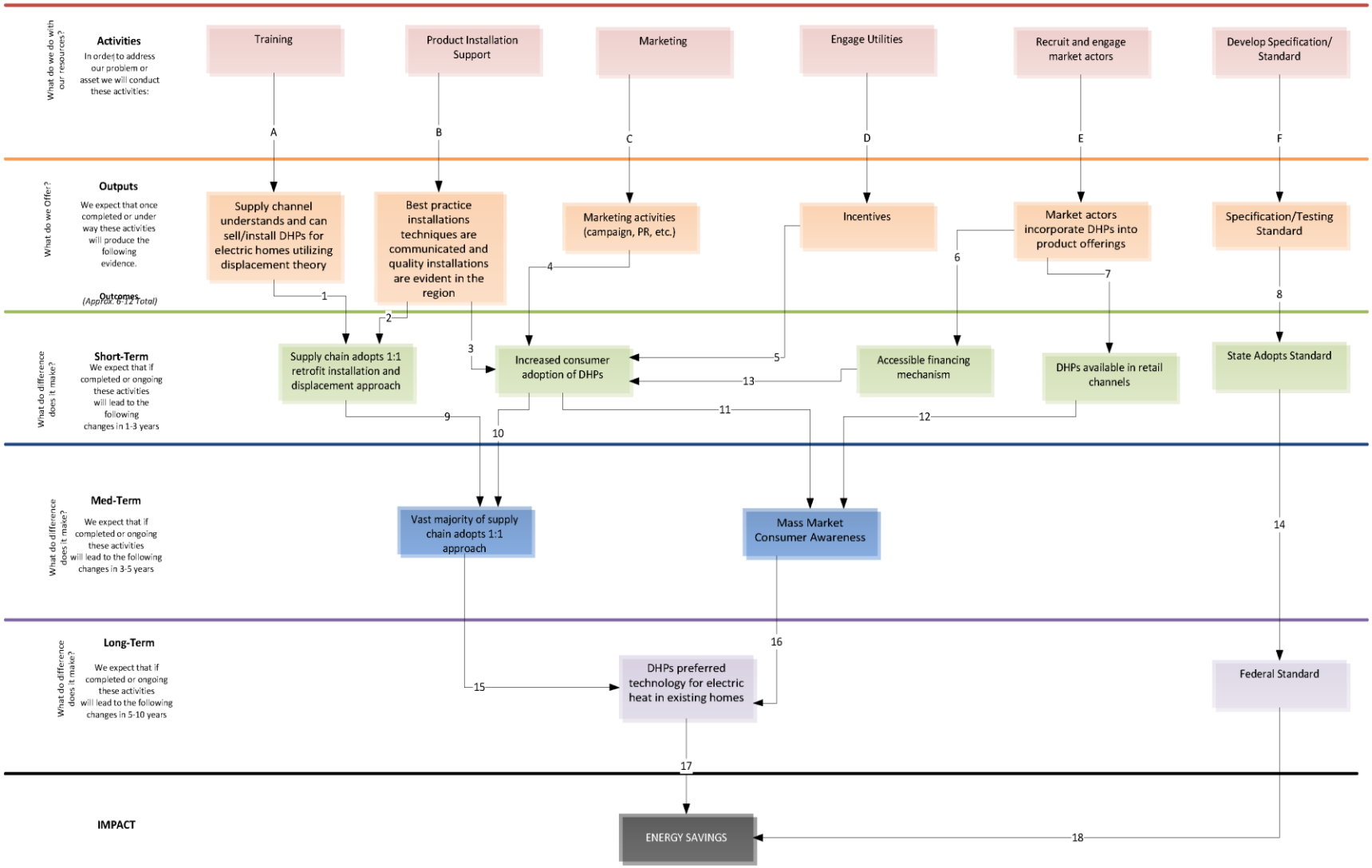
- Where are you going?
- How will you get there?
- How will you know that you've arrived?

A logic model is your program *road map*

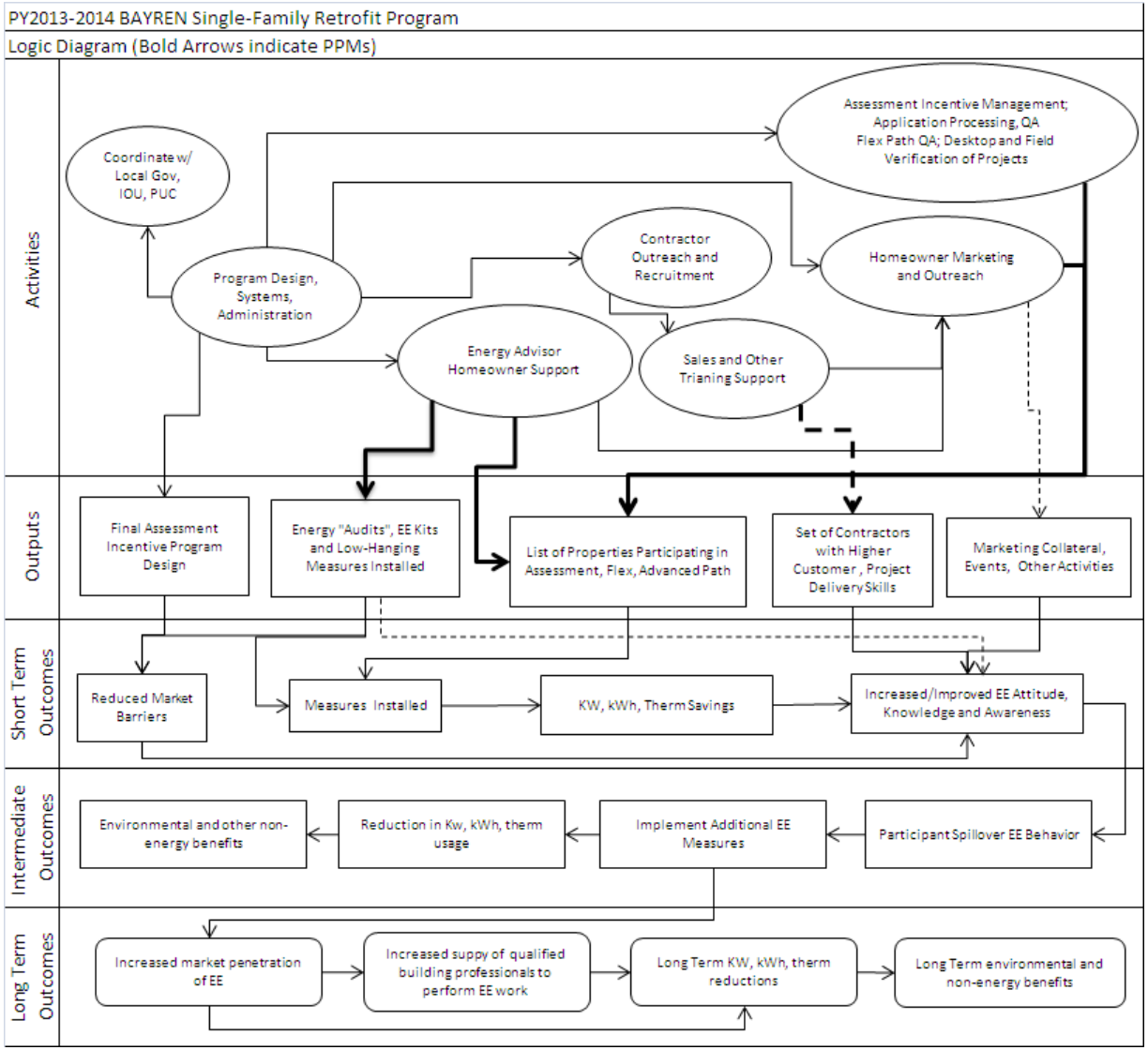
Program Theory: If/Then



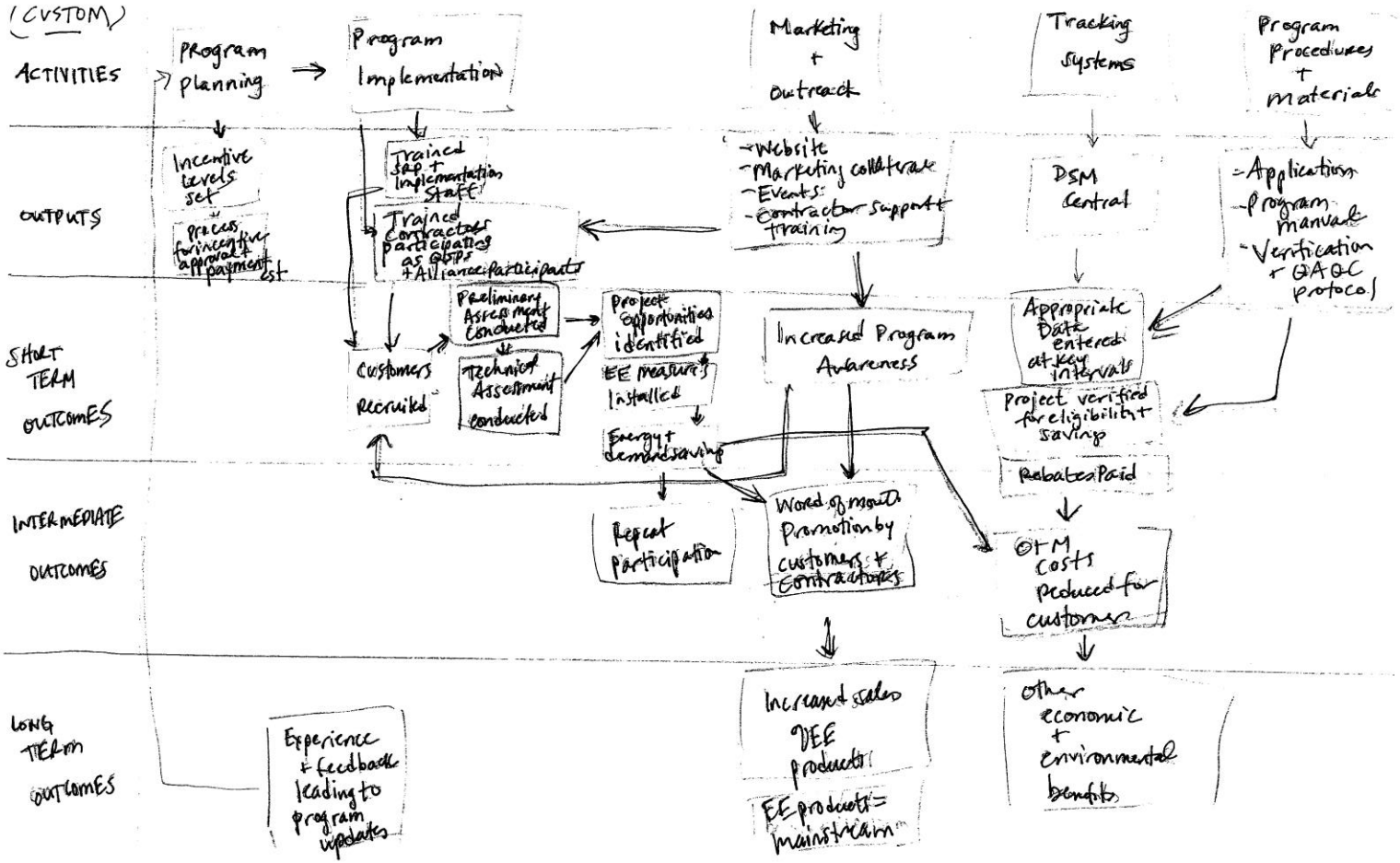
Logic Model - DHPs



Logic Model Example



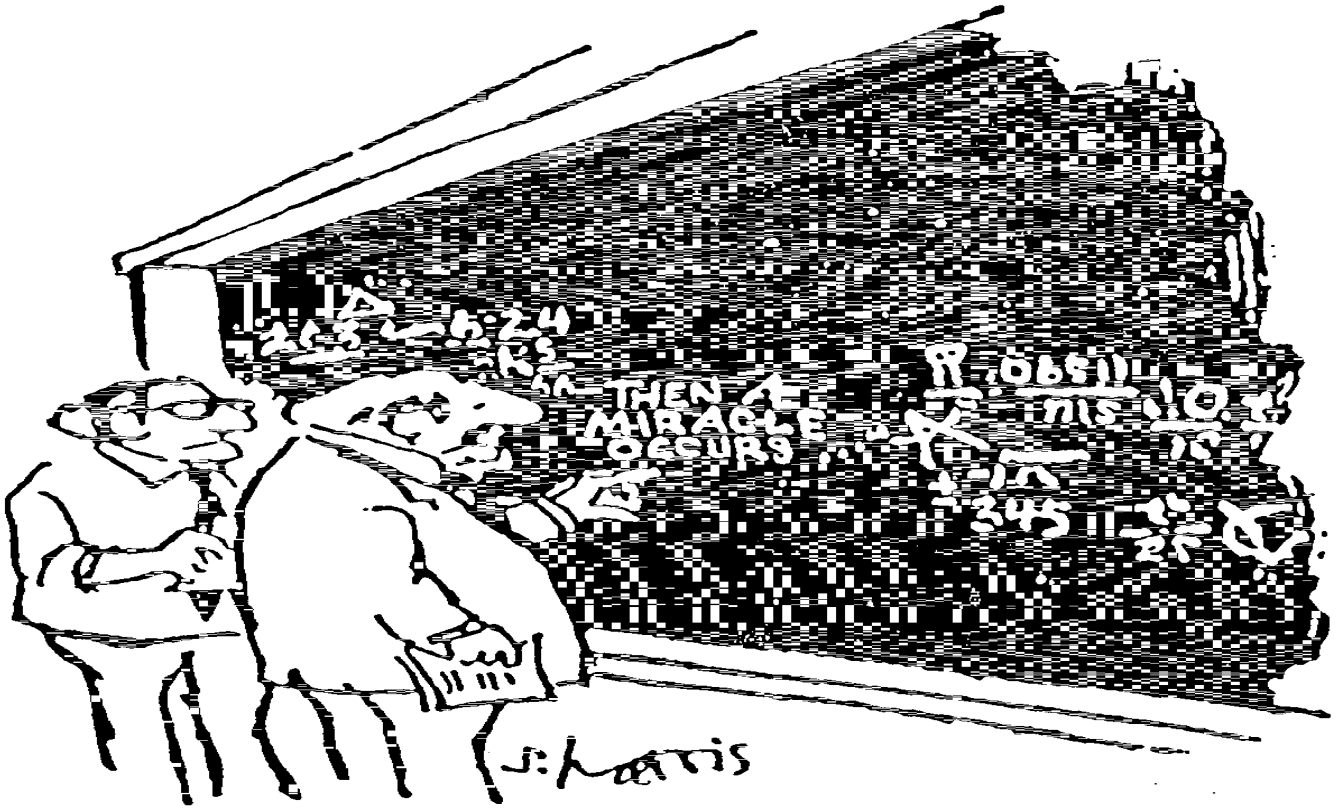
Where do we start?



Why Logic Models Matter

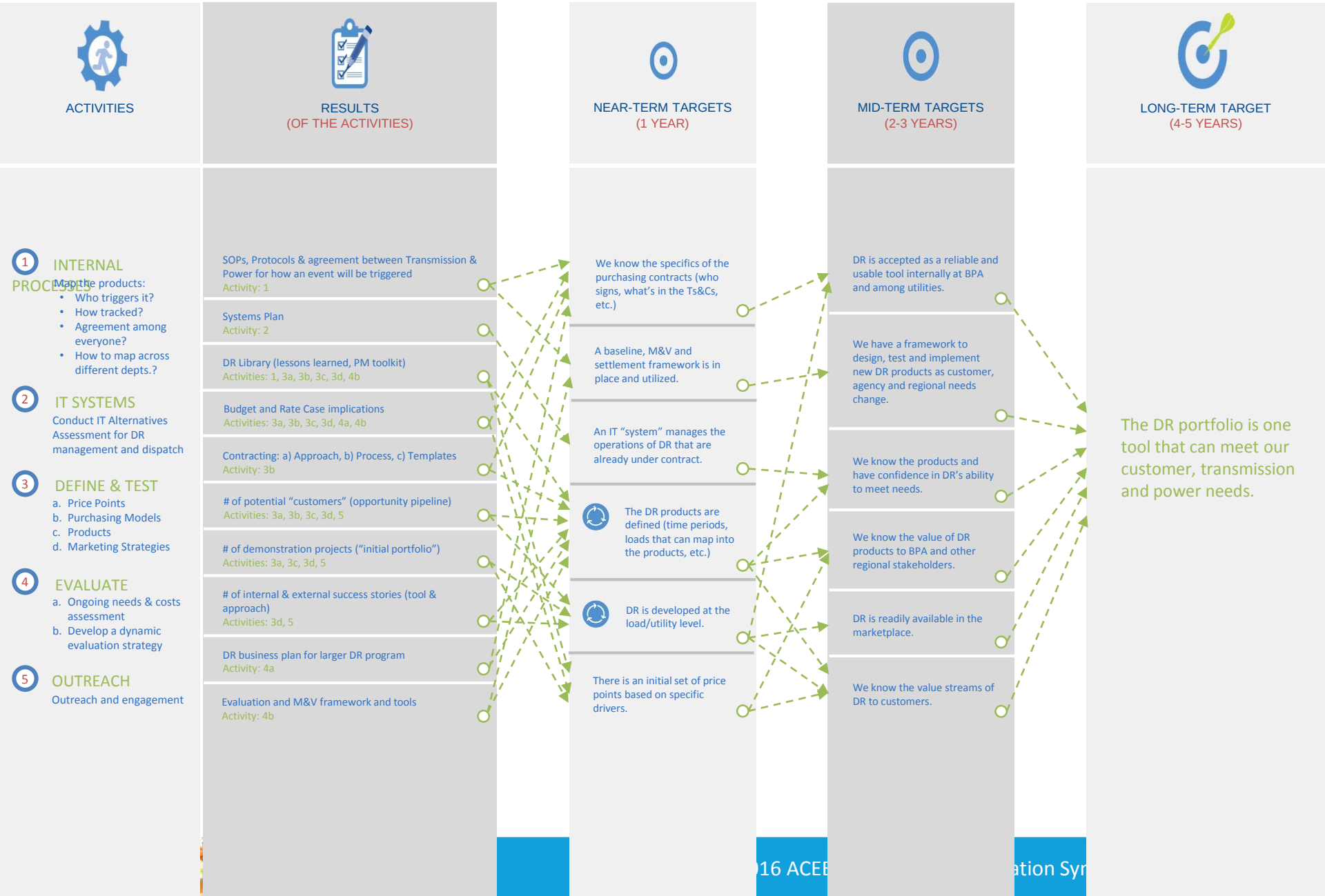
Documented Plan	• What problem are we trying to solve? • What precisely will be done? • What are the desired/expected outcomes?
Communication	• A common road map for all stakeholders and evaluators • Everyone on the same page
Evaluation	• Clarifies what and when to measure • Enables prioritization of evaluation efforts

Why it Matters for Evaluation

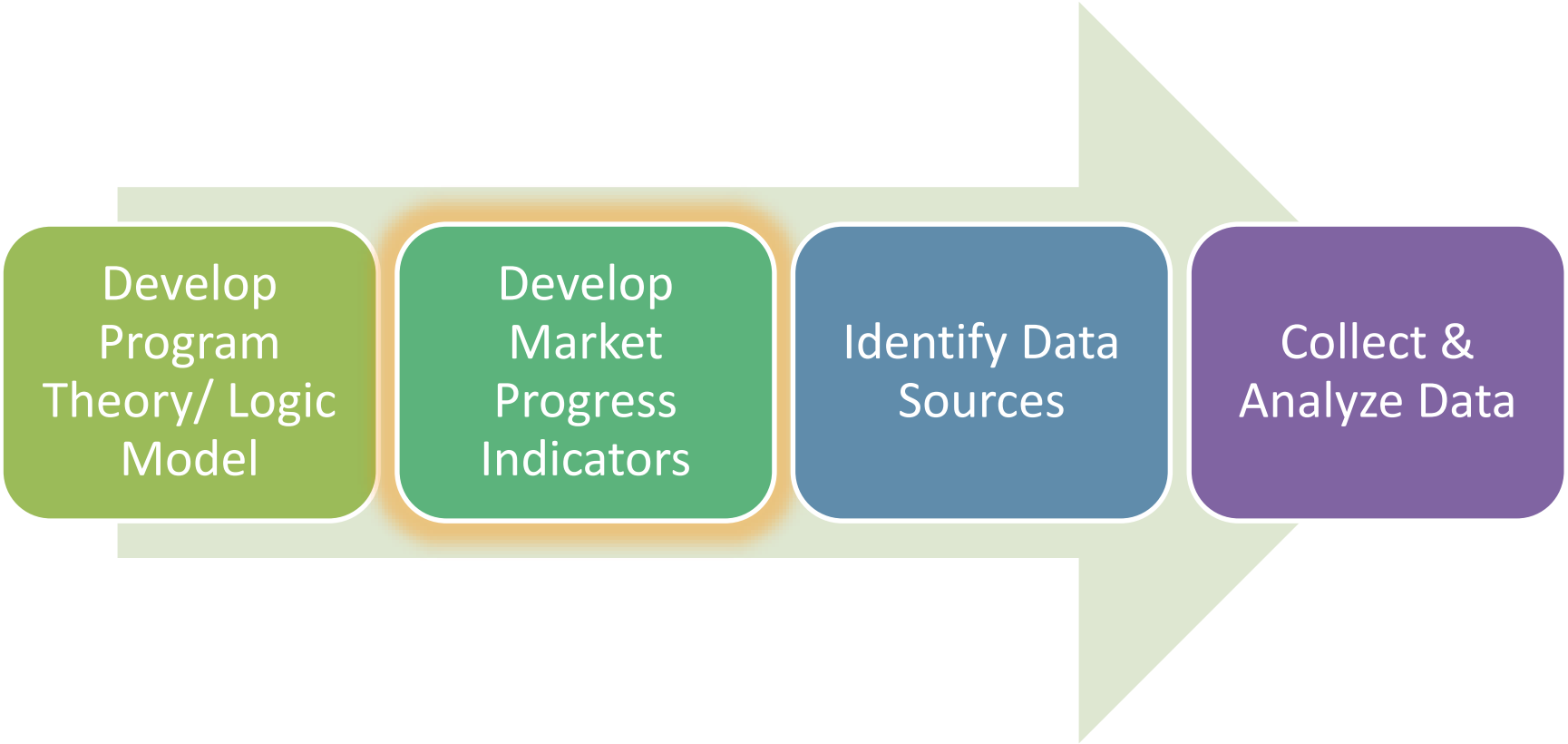


"I think you should be more explicit here in Step Two."

Logic Model Example



Market Progress Evaluation



Market Progress Indicators

How will we know we are making progress in transforming the market?

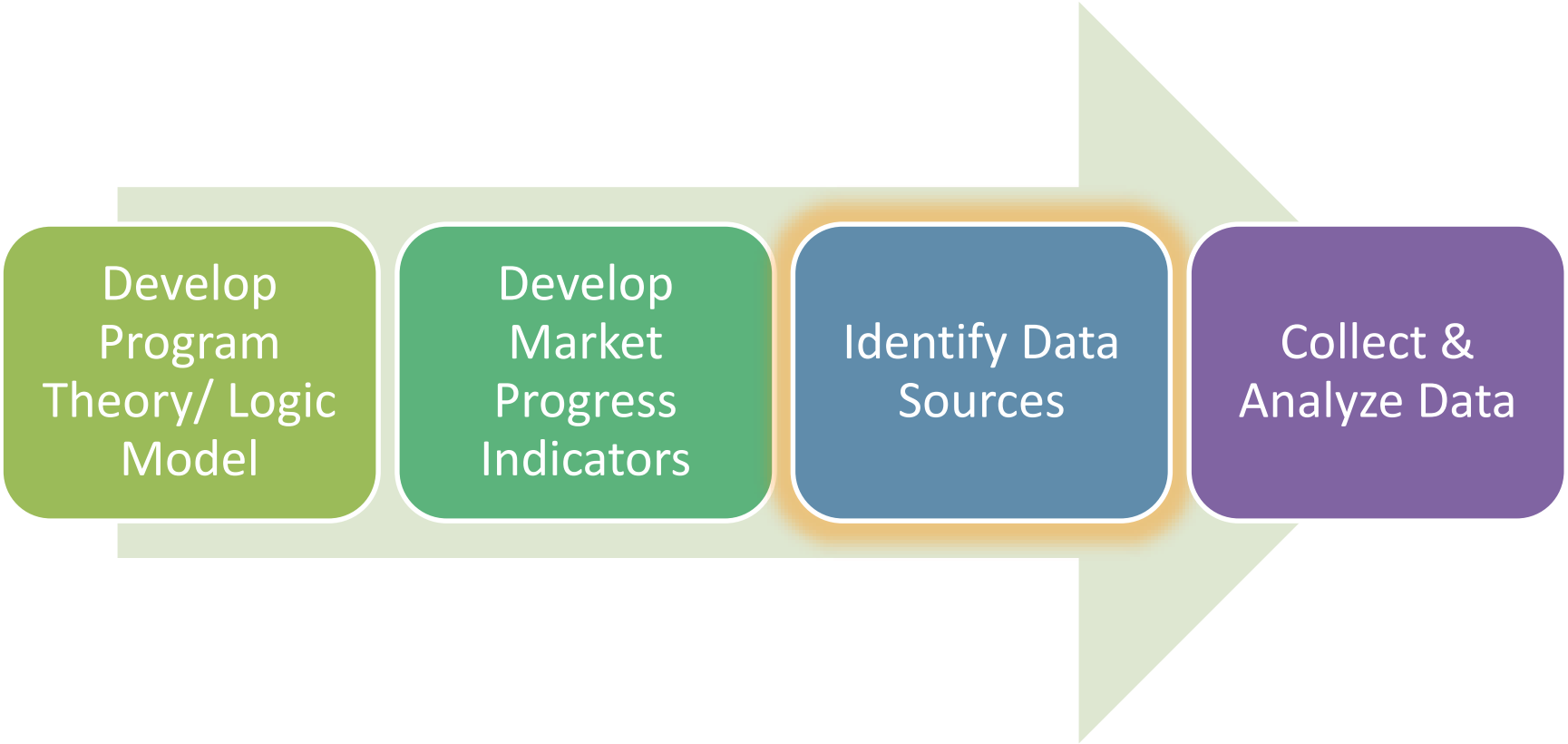
Market Progress Indicators: DHP Examples

Outcome	Progress Indicator
Supply chain promotes DHPs	Coop marketing dollars provided by manufacturers & distributors
Installers see DHPs as viable solution for customers	Installer attitudes: product viability, price
Installers utilize installation best practices	% of sales volume from Master Installers Master Installer QA pass rate
Utilities promote DHPs	# participating utilities
Consumers aware of DHP technology and benefits	Consumer awareness
Equipment accessible to end-users	Retail store availability (volume-weighted) % stores

Example Market Progress Indicators

	Changes in…
Supply Side	Availability of products/services
	Stocking and distribution patterns/practices
	Expansion/change/retooling of manufacturing facilities
	Production levels/schedules
	Number/types of products offered
	Changes in products/product attributes, quality
	Trade ally (market actor) knowledge/knowhow
	Increased trade ally advertising/promotion
	New market entrants
	Reduction in incremental costs of energy efficient products/services
	Changes in business strategy
	Product/service pricing
	Creation/widening in scope of market support structures (e.g., associates or training programs)
	Development of new financial instruments/intermediaries
Demand Side	Awareness
	Attitudes
	Increased recognition and acceptance
	Changes in decision-making/business practices
	Changes to customer procurement practices
	Who is purchasing (e.g., only early adopters?)
	Consumer/purchaser satisfaction
	Market share/sales
Codes/Standards	Progress toward codes or standards (e.g.., distinct action)
	Availability of a test standard
	Adoption of national specification

Market Progress Evaluation



Secondary Data Sources

Program-specific

- Documents/records
- Collateral
- Databases
- Web

Related programs

- Evaluations
- Conference papers
- Best practice studies
- Internet information

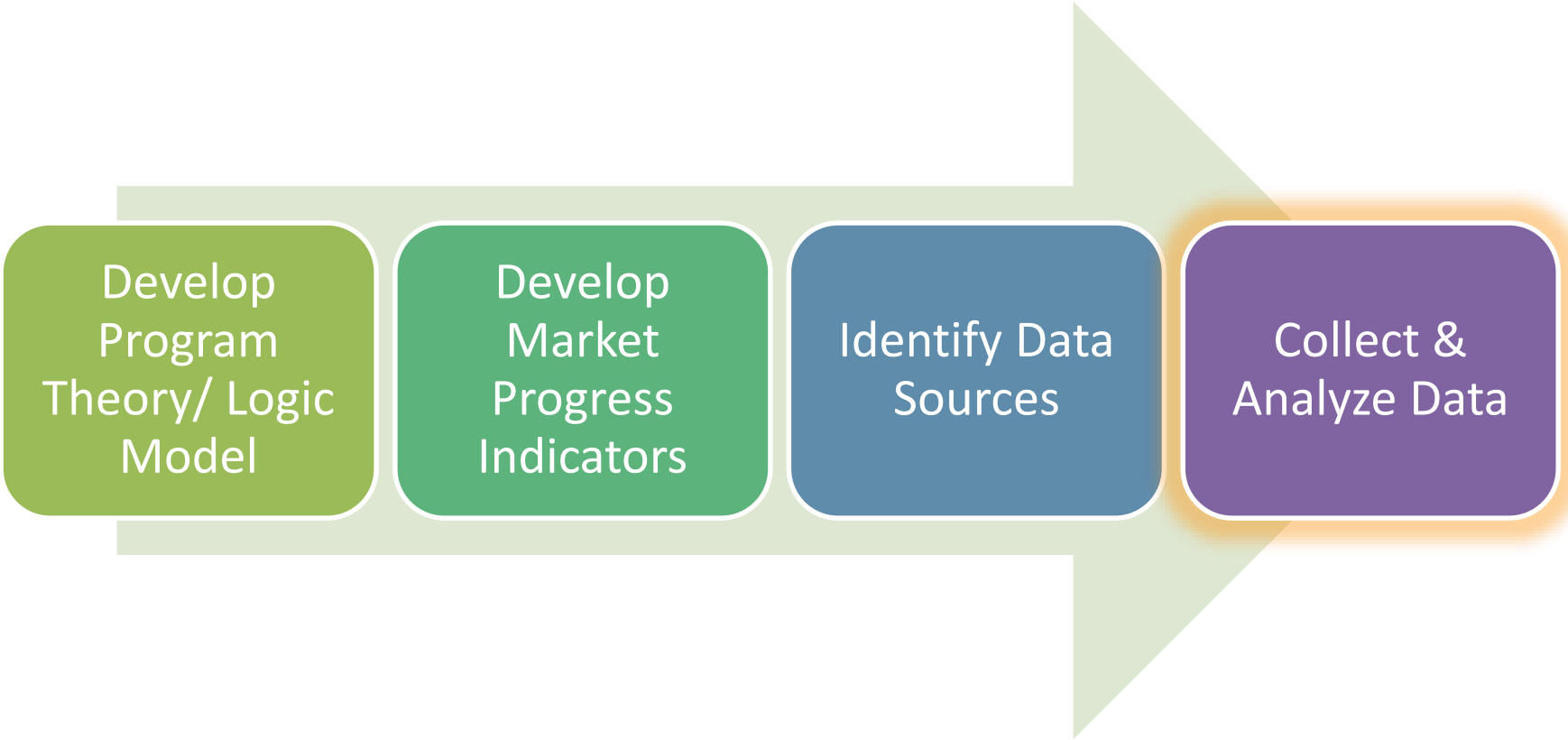
Market data

- Trade press
- Sales data
- Industry forecasts

Primary Data Sources

- Supply chain market actors
- Customers
- Program stakeholders

Market Progress Evaluation



Primary Data Collection Methods

Discussions

- Individual interviews
- Group interviews

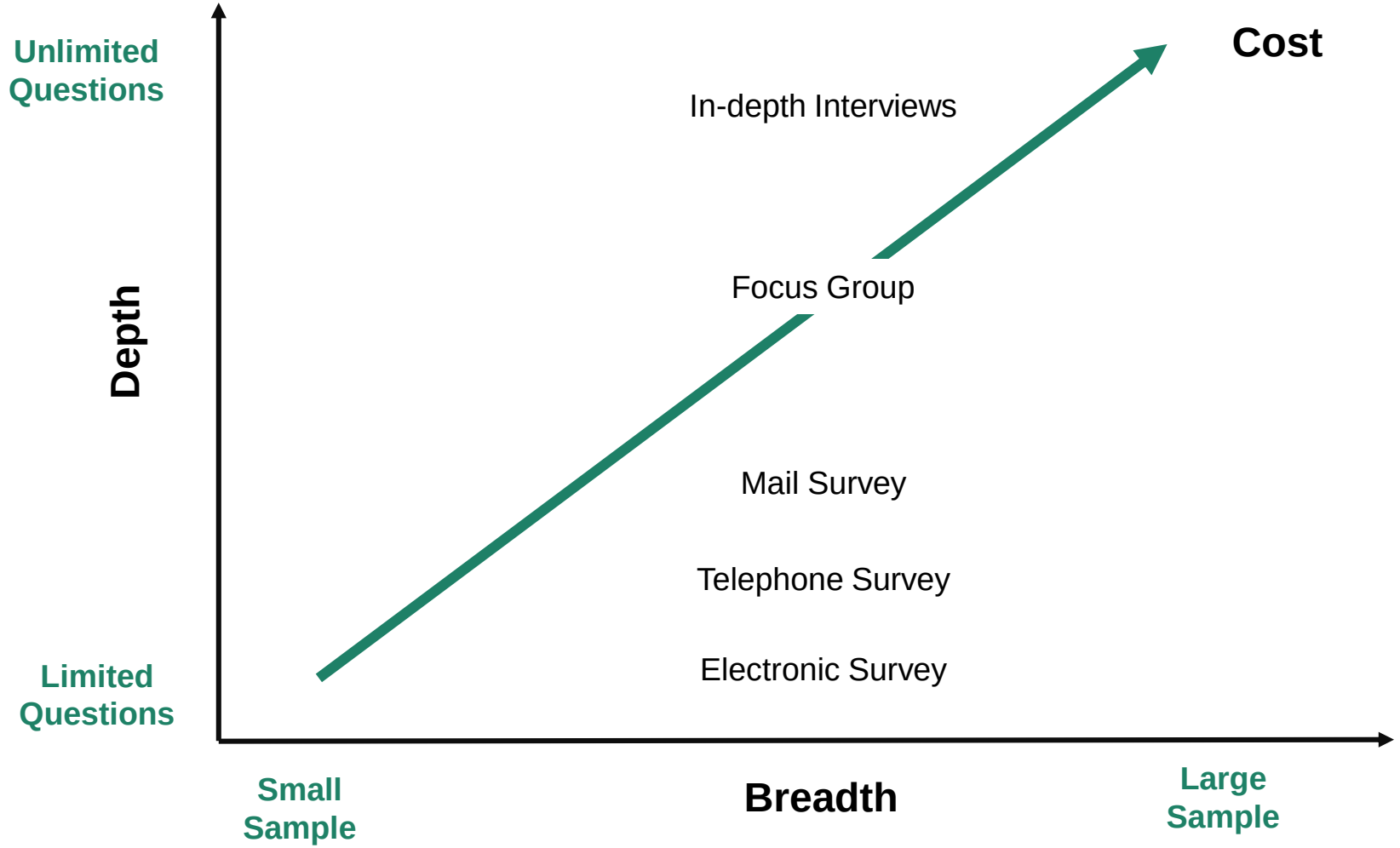
Surveys

- Mail
- Telephone
- Electronic

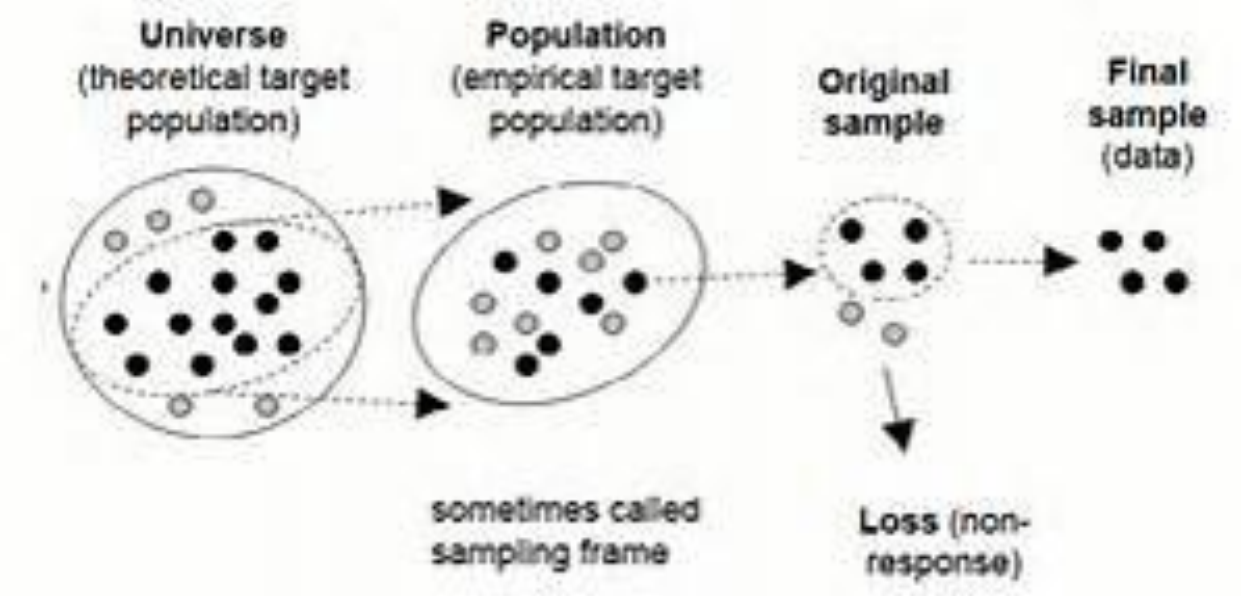
On-site

- Site visits
- Store visits
- Field observations
- Ride-alongs

Cost and Quality Dimensions



Sampling



the selection of a subset of individuals from within a statistical population to estimate characteristics of the whole population

Image courtesy of: https://www.bcps.org/offices/lis/researchcourse/images/sampling_illus.gif

Mapping Data Collection to MPIs

	Data Collection Activities						
Progress Indicators	Database tracking	Phone Interviews w/ planning & program staff	Consumer Survey	Market Actor & utility interviews	Shelf surveys & mystery shopping	Sales Data	Field & Lab Metering Study
Consumer Awareness & Adoption	✓		✓	✓		✓	
Supply Chain Adoption		✓		✓			
Retail Channel Availability					✓	✓	
Access & Use of Financing Mechanisms		✓	✓	✓			
Energy Savings						✓	✓

Adaptive Management

- No mechanism to capture market effects data
  - Partner w/ manufacturers & distributors to obtain sales data; sign NDA
  - Evaluation plan to review sales data & calculation methodology
- Continued need for incentive dollars to overcome first cost barrier
  - Continue utility program partnership/coordination
  - Explore upstream incentives to decrease utility program costs
- High cost throughout supply chain.
  - Implement retail strategy with big box retailers
- Need increased visibility & understanding of DHPs in rural areas
  - Continue to build rural utilities participation
  - Increase training & marketing materials to installers

Market Progress Indicators Exercise

Progress Indicator Exercise

Expected Outcome	Progress Indicator	Evidence/Data Needed to Confirm

Wrap-Up

MT Evaluation Challenges

- Establishing causality
- Estimating “naturally-occurring baseline”
  - Multiple entities intervening in the market
  - Program design often involves national market actors
- Data acquisition & planning

Distinguishing Features of MT Evaluation

- Program theory driven evaluation
- Barriers/opportunities assessment
- Baseline studies (early) and periodic data collection to understand the nature and size of the pre-program market and changes in the market over time
- Market studies – annually, ongoing
- Data and program activities – detailed chronology
- Multiple lines of evidence to increase credibility, validity and reliability of evaluation findings

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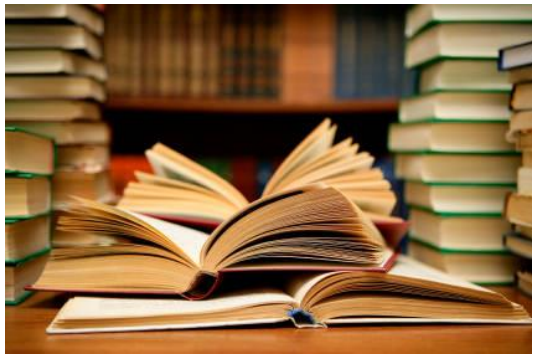

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Key Takeaways

- Define what the transformed market looks like and how you plan to get there
- Design/plan for evaluation (make sure you know what you need to measure
- Plan for adaptive management
- MT programs are designed to ultimately make the program unnecessary (because it results in sustained market adoption and changes)
- Market transformation takes time

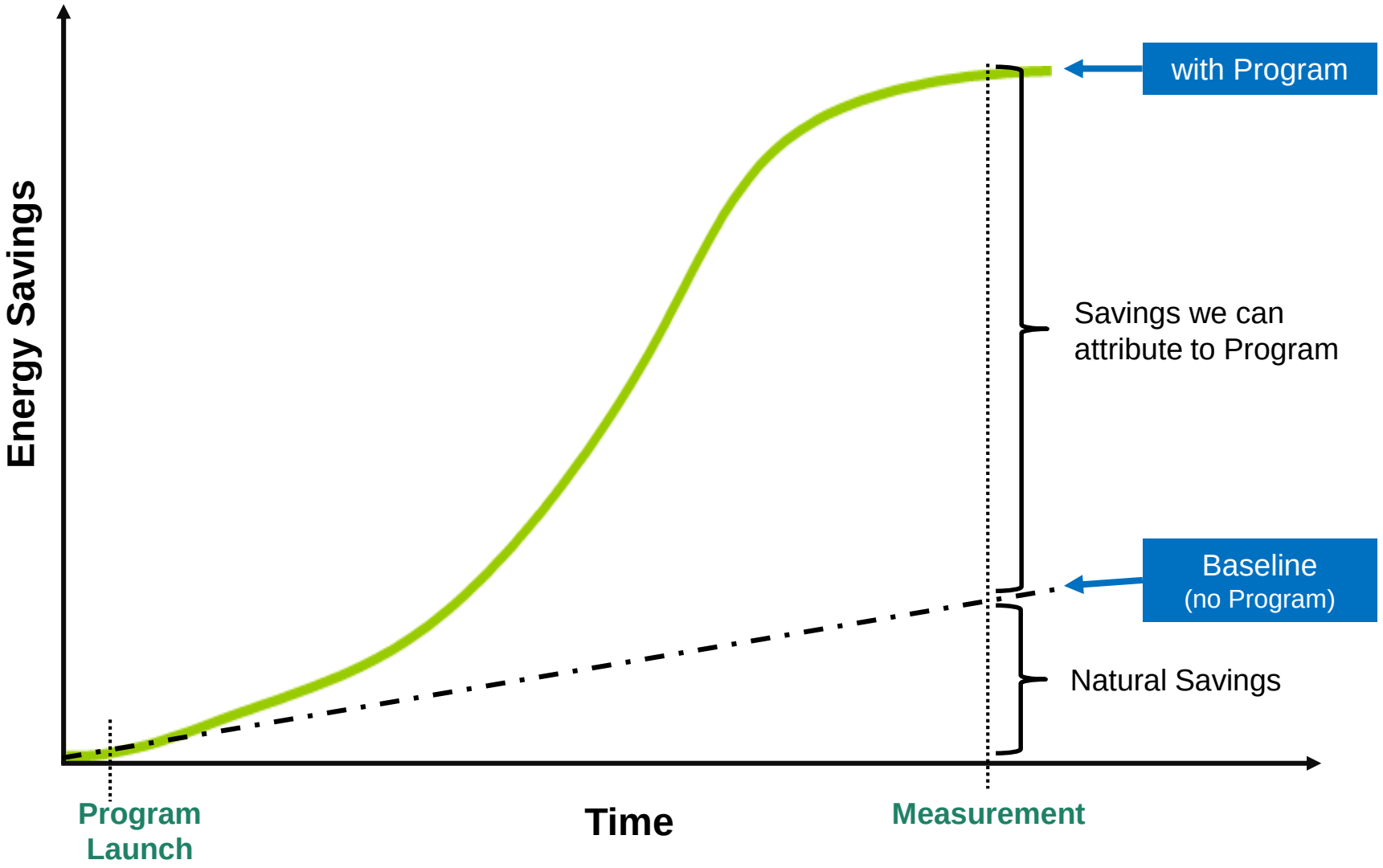
Extra Slides

More About Energy Savings and "Market Effects"

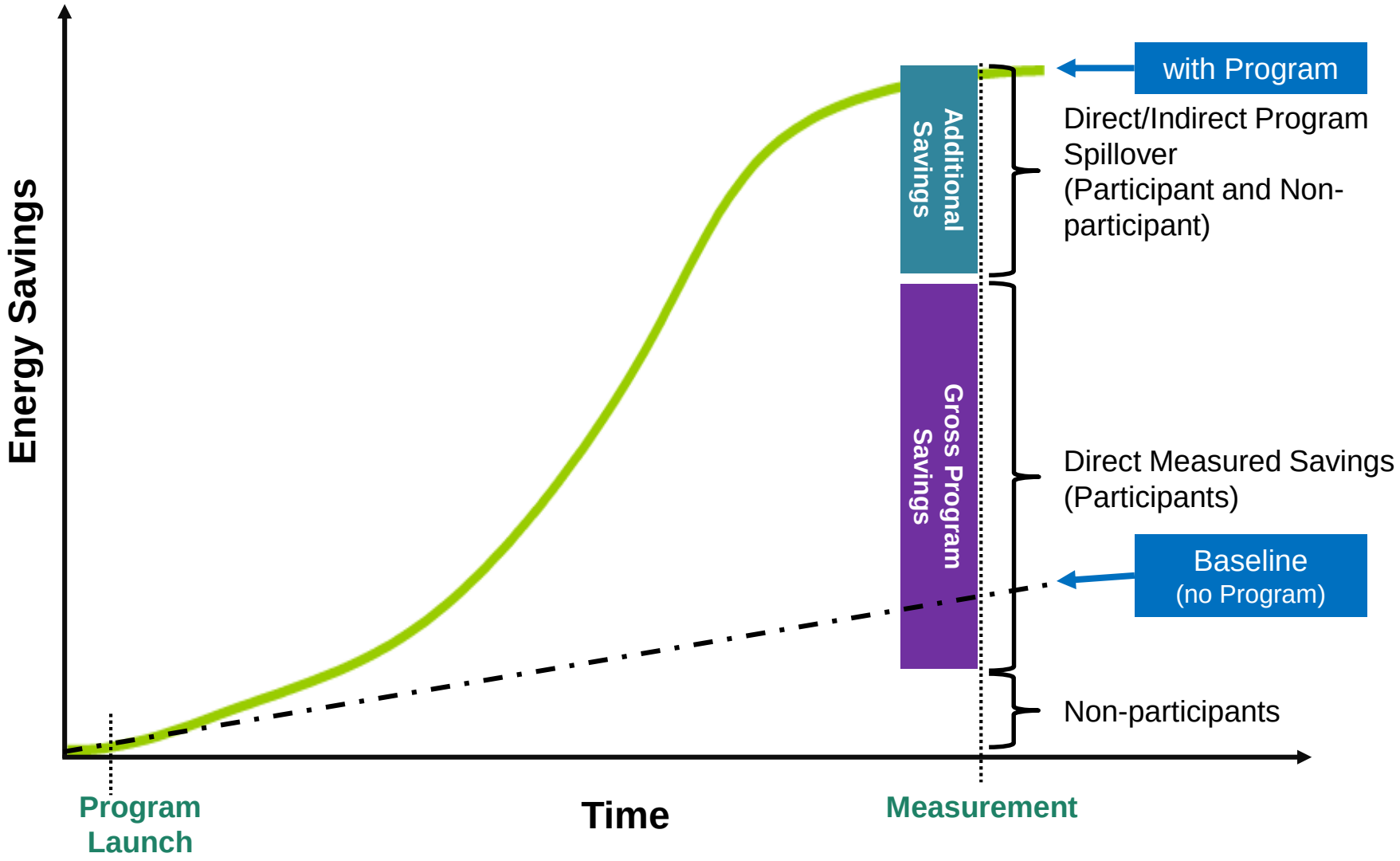
Resource Acquisition vs. Market Transformation Programs (*caveat: a slight oversimplification)

	Resource Acquisition	Market Transformation
Approach	Save energy via customer participation/uptake	Save energy by mobilizing widespread market adoption via interventions designed to deliver lasting market change
End-User Characteristics	Participants/ enrollees are known & recruited directly*	Adopters are not known (aside from early partners/ demonstrations)
Savings Estimation	Unit energy savings estimated based on sample and extrapolated to participating customers; NTG applied	Unit energy savings estimated based on sample and extrapolated to market; market baseline estimate subtracted from market savings
Implications	• Savings based on program participation • Success of program judged on short-term results, and easily determined. • No logic model needed	• Savings based on modeled market projections using accepted & replicable techniques • Success of initiative based on long-term outcomes. • Theory of change with specific market progress indicators required to validate progress and impact

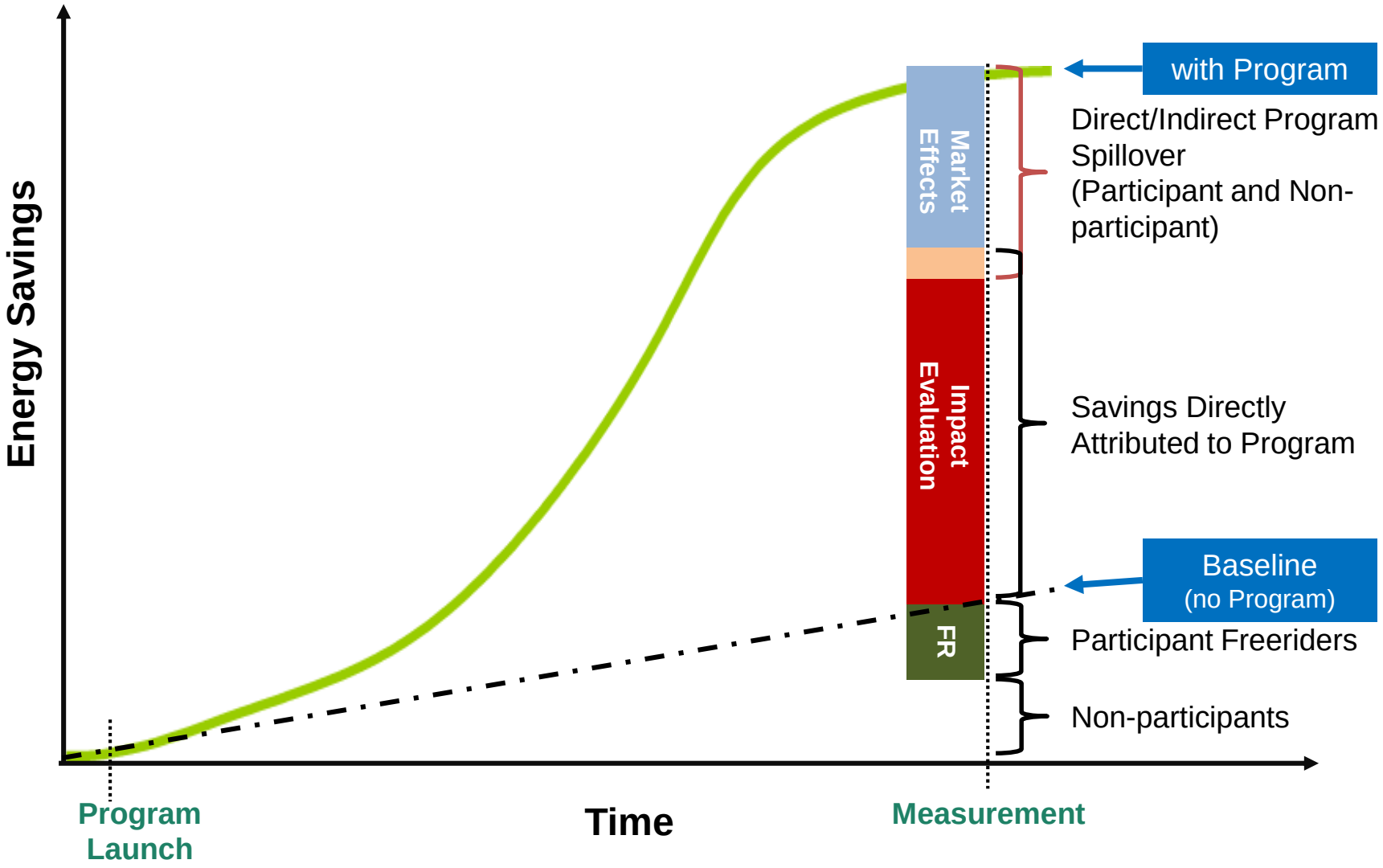
Savings Estimates



Savings Estimates



Savings Estimates



Logic Model

Target Audiences

Mass Market

Minority Families (African Am., Latino) and Children

Direct Targeting

Landlords
Homeowners
Medicaid Providers
Rehab and Housing Contractors

Secret Shopper

Paint Retailers

Activities

- Ad Campaign for Lead Awareness
- Speakers at Church/Community Events, Festivals
- Newsletters and Speakers at Trade/Civic Org. conferences
- Outreach Team Training
- Home Visitations/Canvassing to apartments and houses
- MCOs and ICHCs give BLL tests to all Medicaid Children under 3 years of age
- Visits to rehab works; education and training
- Train Secret Shopper Volunteers
- Visit paint retailers – survey about lead safety for home renovation
- Share survey results with management; education and training

Outputs

- 350,000 to 640,000 minorities reached
- # Media posted (per location): billboards, radio, TV, bus ads, posters
- 58,000 landlords and homeowners reached
- # of Kits given away
- 300 Medicaid Providers Reached
- 70 Construction owners and workers reached
- 75 Store visits under Secret Shopper

Outcomes

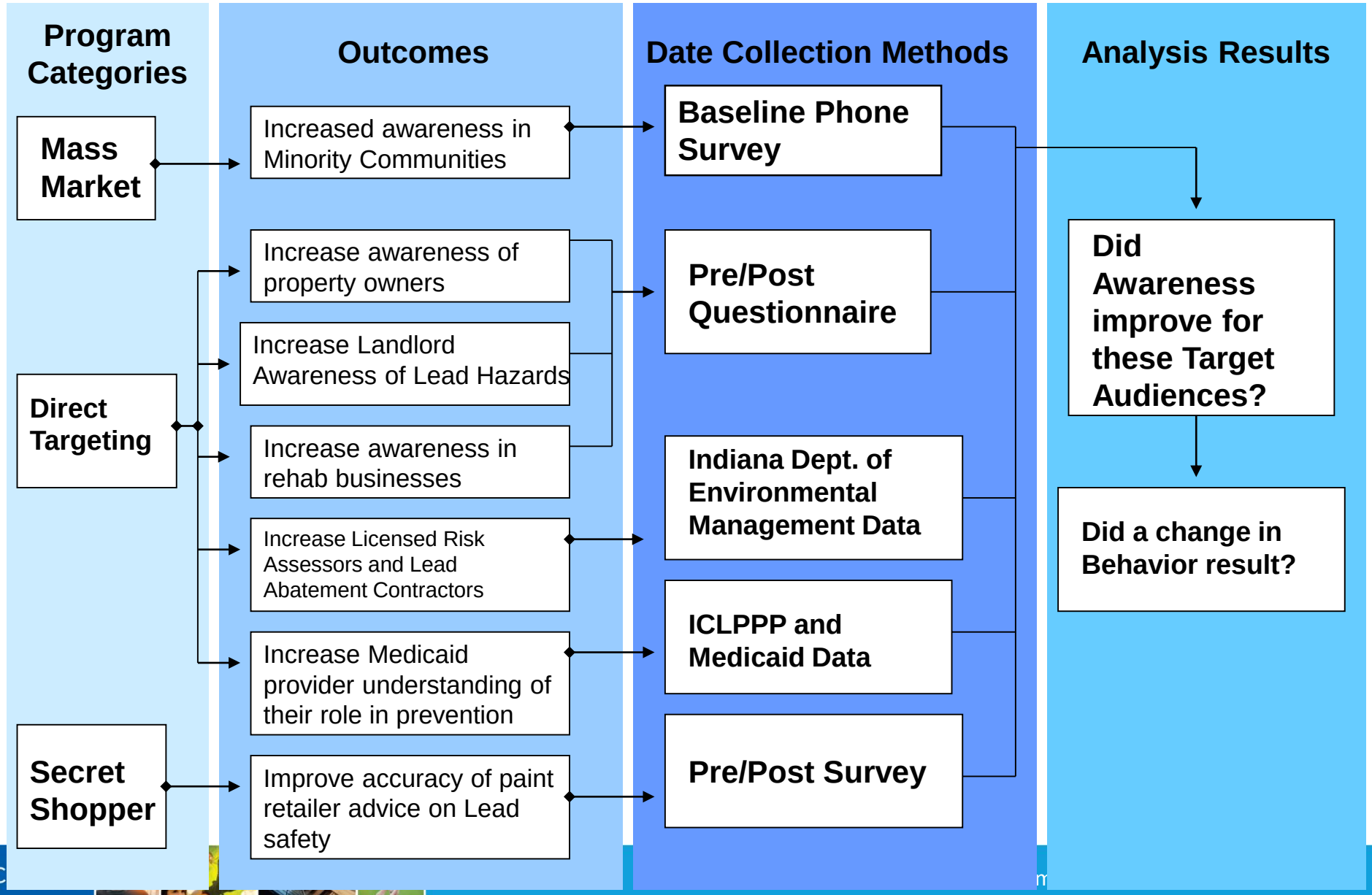
Short-Term

- Increased awareness of lead exposure, dangers of lead poisoning, and prevention in minority communities
- Increase property owner understanding of responsibilities to make housing lead safe
- Increase landlord understanding of responsibilities for making pre-1978 housing lead safe
- Increase Medicaid provider understanding of lead paint dangers and their role in prevention
- Increase number of licensed risk assessors and lead abatement contractors in minority communities
- Increase awareness in rehab businesses of lead hazards and need for lead-safe work practices
- Improve accuracy and reliability of paint retailer advice to customers on lead-safe work practices

Long-Term

- Reduce the amount of lead exposure to children in minority communities
- Reduce the amount of lead hazards in housing for minority communities
- All Medicaid children of 3 years old or younger get BLL tests
- Lead awareness integrated into practices of Medicaid providers, contractors, rehab businesses, paint retailers

Measurement Approach



Bringing it all Together