

The Science and Practice of using Science in Practice



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UNC

FRANK PORTER GRAHAM CHILD DEVELOPMENT INSTITUTE

We want to:

Reliably produce...

**predictable outcomes for
children, families, and
communities...**

that improve every year...

for the next 50 years.

A Big Problem

 **Children and families cannot benefit from interventions they do not experience**

Lessons From:

- Direct experience with program development and national implementation
- Review and synthesis of the implementation evaluation literature
- Review of successful implementation practices
- Evaluation of implementation efforts

Implementation Science

Excellent experimental evidence for what does not work

➤ **Diffusion/dissemination of information by itself does not lead to successful implementation (research literature, mailings, promulgation of practice guidelines)**

➤ **Training alone, no matter how well done, does not lead to successful implementation**

Implementation Science

Excellent experimental evidence for what does not work

- Diffusion/dissemination of information by itself does not lead to successful implementation (research literature, mailings, promulgation of practice guidelines)
 - Training alone, no matter how well done, does not lead to successful implementation
- These two “implementation practices” have been in common use for the past 5 decades.**

Implementation Science

Excellent evidence for what does not work

➤ Implementation by laws/ compliance by itself does not work

➤ Implementation by “following the money” by itself does not work

➤ Implementation without changing supporting roles and functions does not work

Paul Nutt (2002). *Why Decisions Fail*

Implementation Science

		IMPLEMENTATION	
		Effective	NOT Effective
INTERVENTION	Effective	Child & Family Benefits	Poor Outcomes
	NOT Effective	Highly variable, often ineffective, sometimes harmful to children, families, and adults	

(Institute of Medicine, 2000; 2001; New Freedom Commission on Mental Health, 2003; National Commission on Excellence in Education, 1983; Department of Health and Human Services, 1999)

Implementation Science

- ▶ **Letting it happen**
 - ▶ Recipients are accountable
- ▶ **Helping it happen**
 - ▶ Recipients are accountable
- ▶ **Making it happen**
 - ▶ Implementation teams are accountable

Implementation Frameworks

Multi-dimensional, Fully integrated

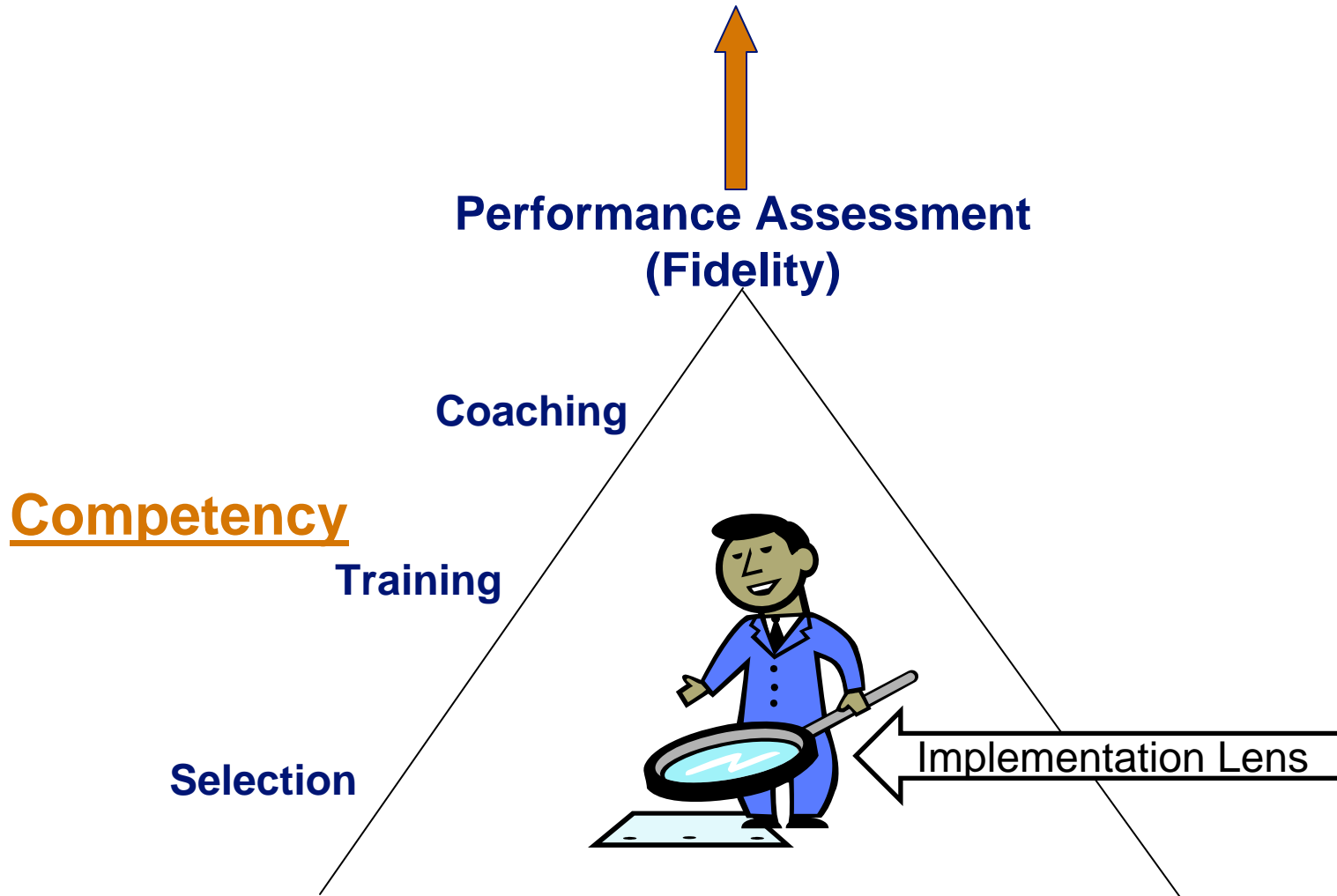
 **Implementation Drivers**

 **Implementation Stages**

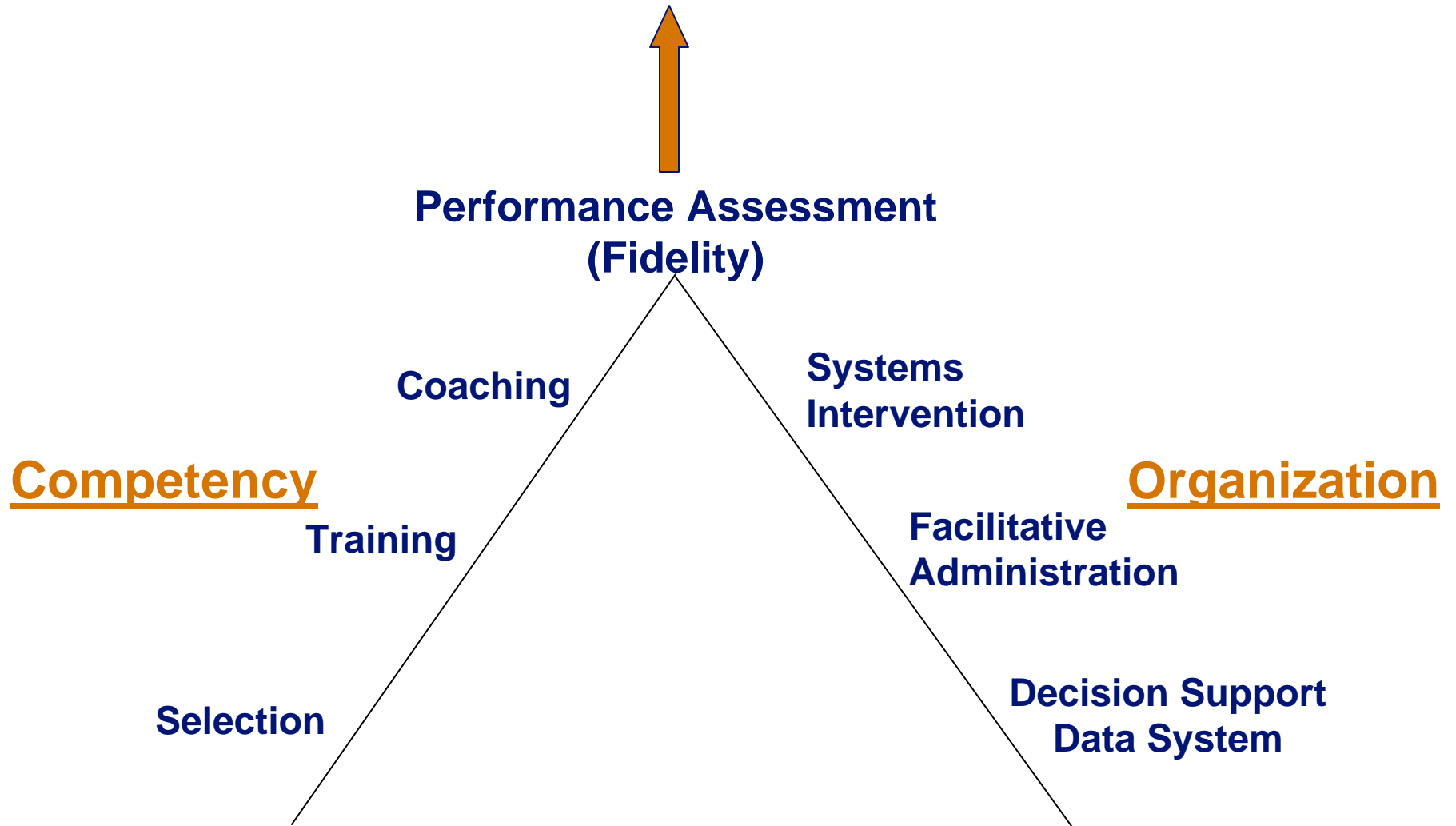
 **Implementation Teams**

 **System Transformation**

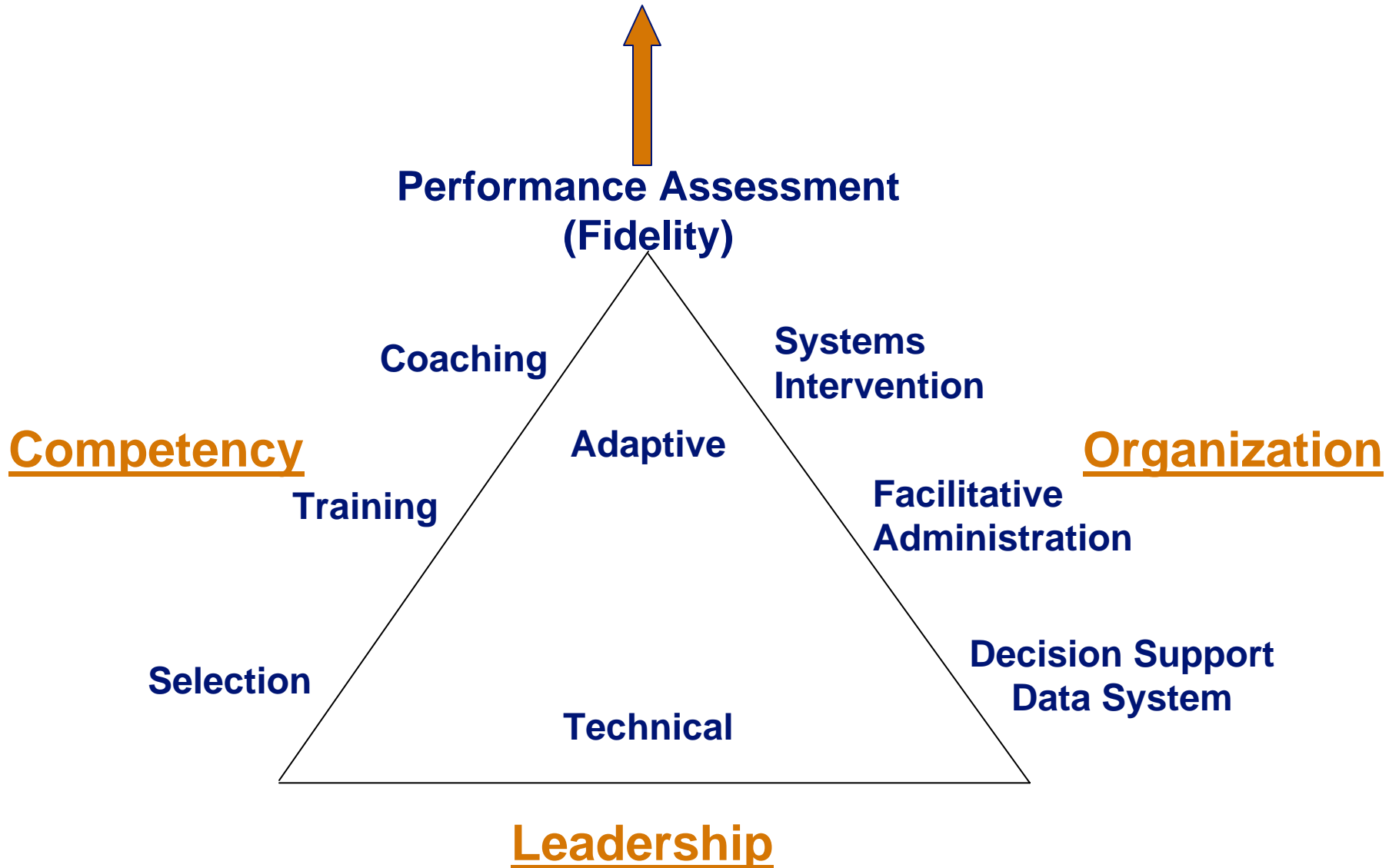
Consumer Benefits



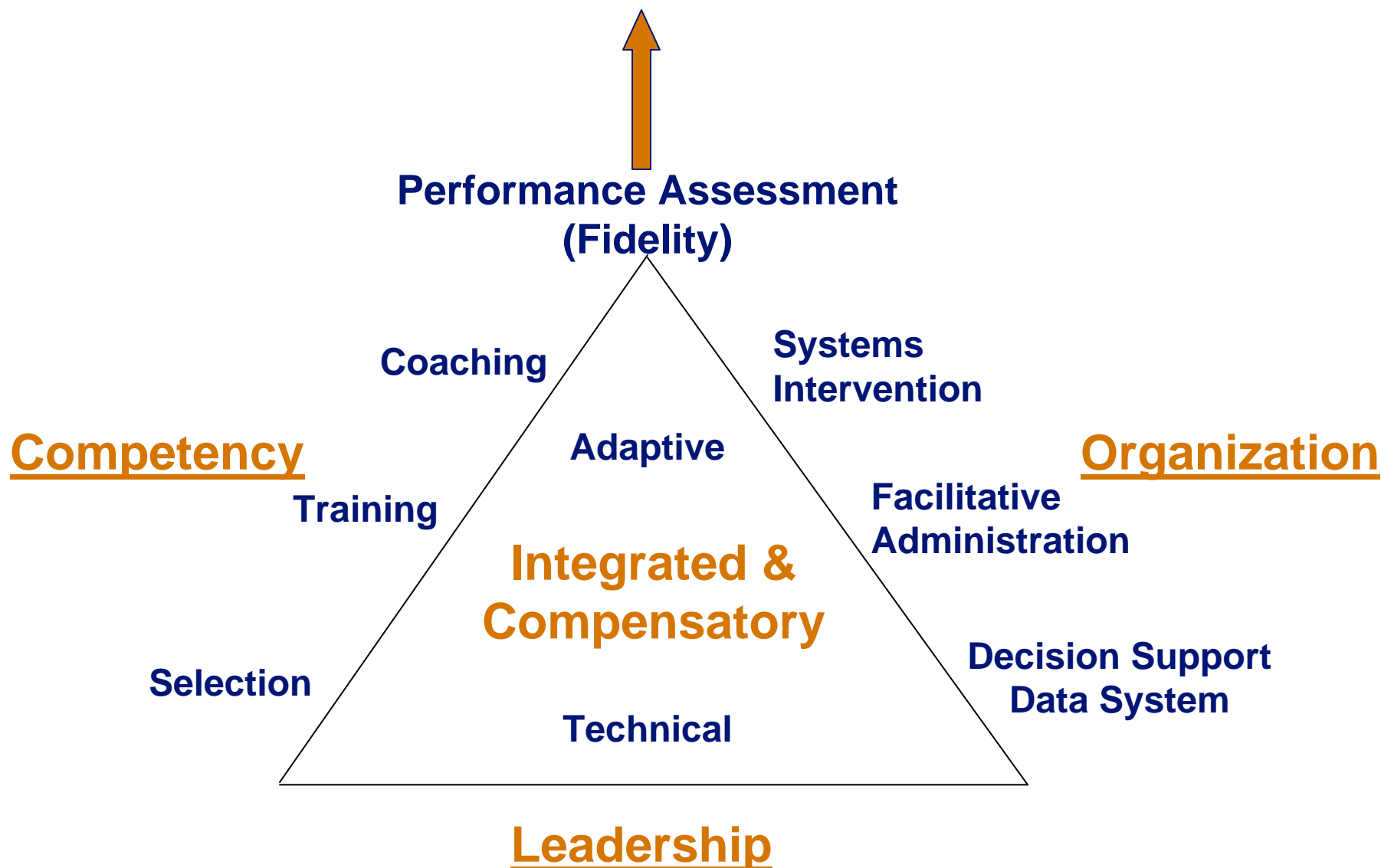
Child & Family Benefits



Child & Family Benefits



Child & Family Benefits



	OUTCOMES (% of Participants who Demonstrate Knowledge, Demonstrate new Skills in a Training Setting, and Use new Skills in the Classroom)		
TRAINING COMPONENTS	Knowledge	Skill Demonstration	Use in the Classroom
Theory and Discussion	10%	5%	0%
..+Demonstration in Training	30%	20%	0%
...+ Practice & Feedback in Training	60%	60%	5%
...+ Coaching in Classroom	95%	95%	95%

Implementation Frameworks

Multi-dimensional, Fully integrated

 Implementation Drivers

 **Implementation Stages**

 Implementation Teams

 System Transformation

Child & Family Benefits

Stages of Implementation

• Exploration

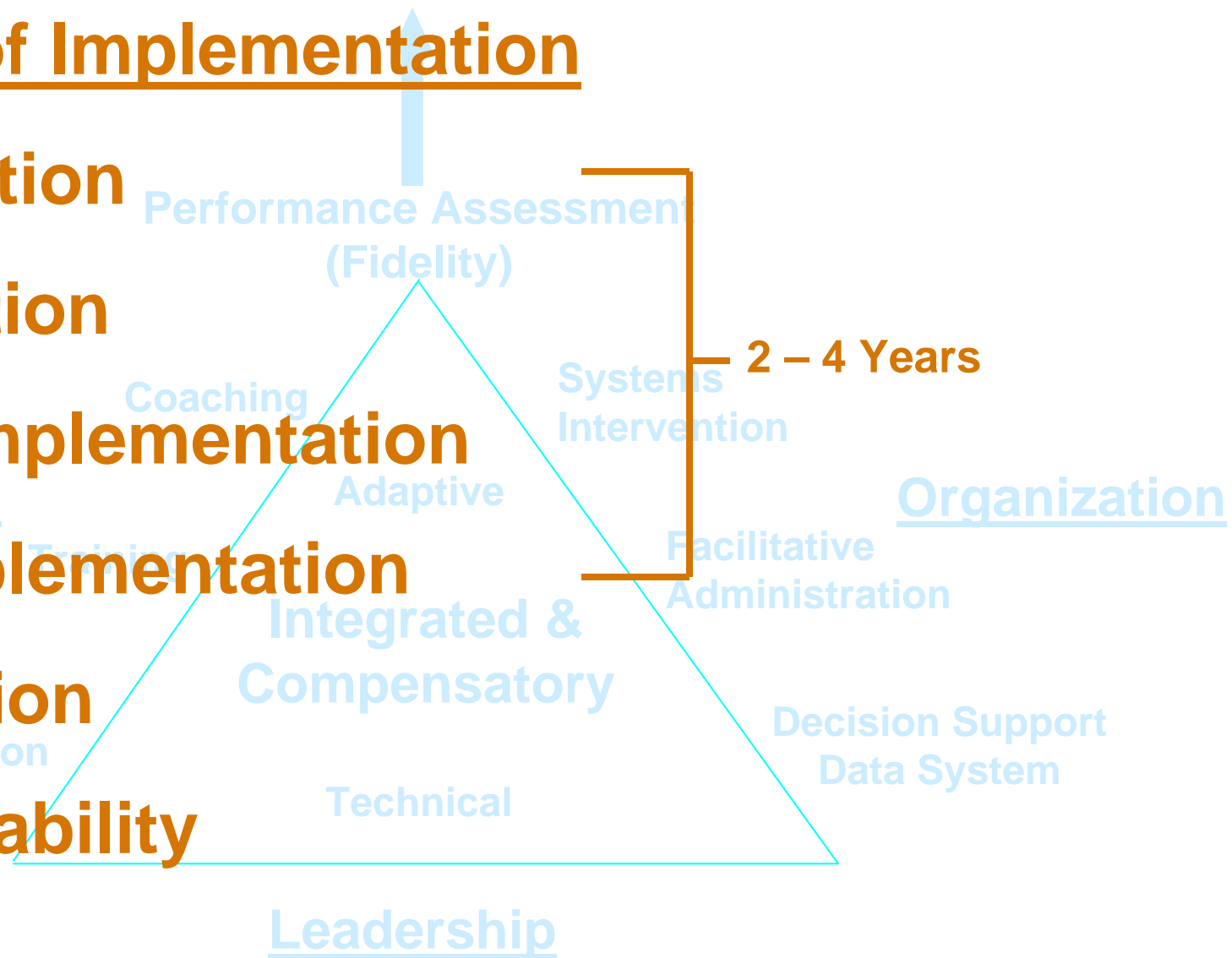
• Installation

• Initial Implementation

• Full Implementation

• Innovation

• Sustainability



Implementation Frameworks

Multi-dimensional, Fully integrated

 Implementation Drivers

 Implementation Stages

 **Implementation Teams**

 System Transformation

Implementation Science

➤ **Making it Happen: Implementation teams are accountable**

EBPs currently are used where they are most wanted (boutique uses)

Social impact will come from going where they are most needed (ALL children and families who need help – common usage)

Implementation Team

- A group that knows the innovation very well (formal and practice knowledge)
- A group that knows implementation very well (formal and practice knowledge)
- A group that knows improvement cycles to make intervention and implementation methods more effective and efficient over time

Implementation Team

Simultaneous, Multi-Level Interventions

Implementation Team

↔ Practitioner

↔ Organization

↔ Management (leadership, policy)

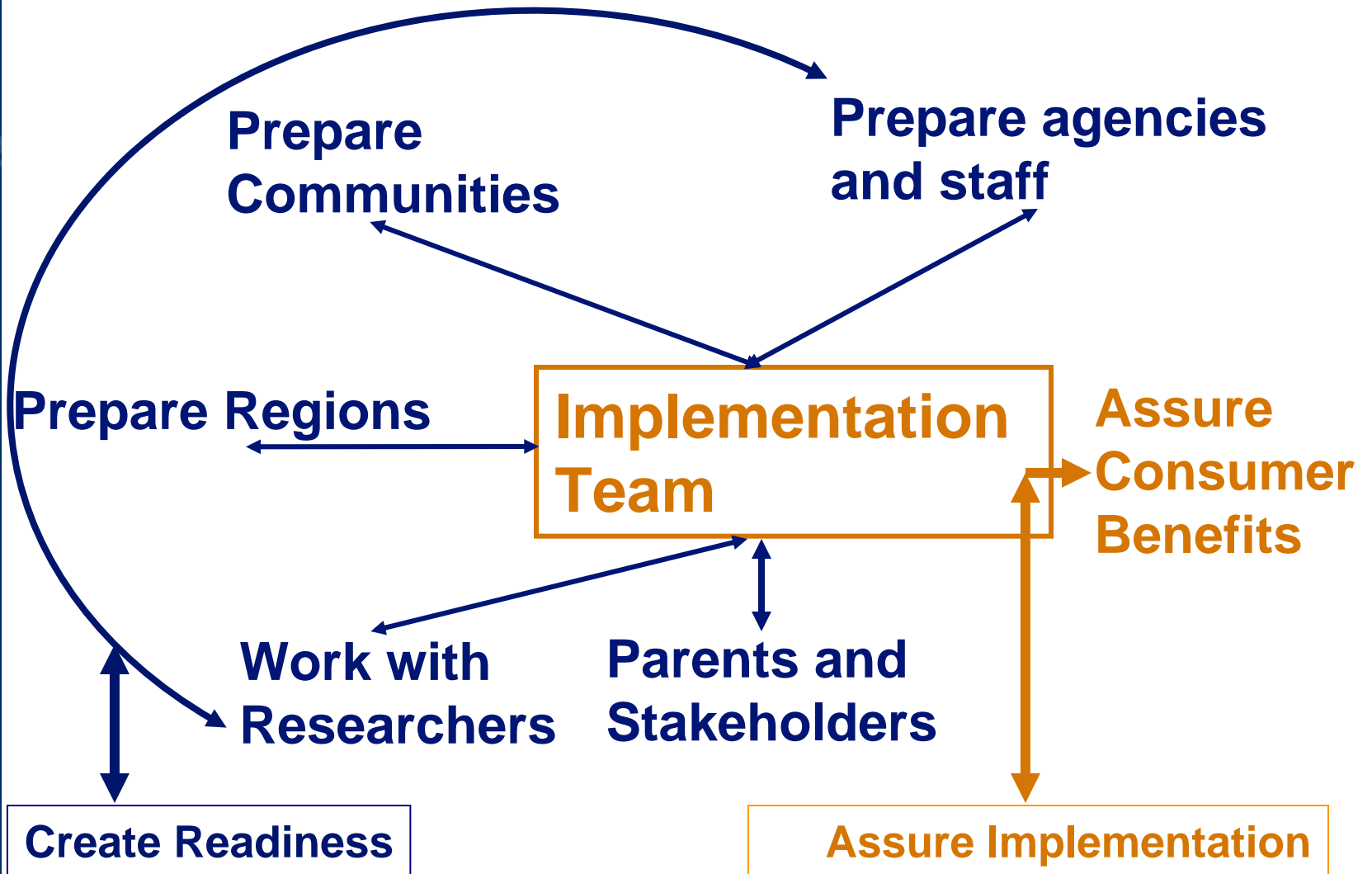
↔ Administration (HR, structure)

↔ Supervision (nature, content)

↔ System of care

↔ State, County and Local Context

Implementation Team



Implementation Science

		IMPLEMENTATION	
		Effective	NOT Effective
INTERVENTION	Effective	80%, 3.6 Yrs	14%, 17.0 Yrs
	NOT Effective		

Implementation Frameworks

Multi-dimensional, Fully integrated

 Implementation Drivers

 Implementation Stages

 Implementation Teams

 **System Transformation**

Problem

"All organizations [and systems] are designed, intentionally or unwittingly, to achieve precisely the results they get."

**R. Spencer Darling
Business Expert**

"The tyranny of the status quo."

**Fritz Oser
Educator**

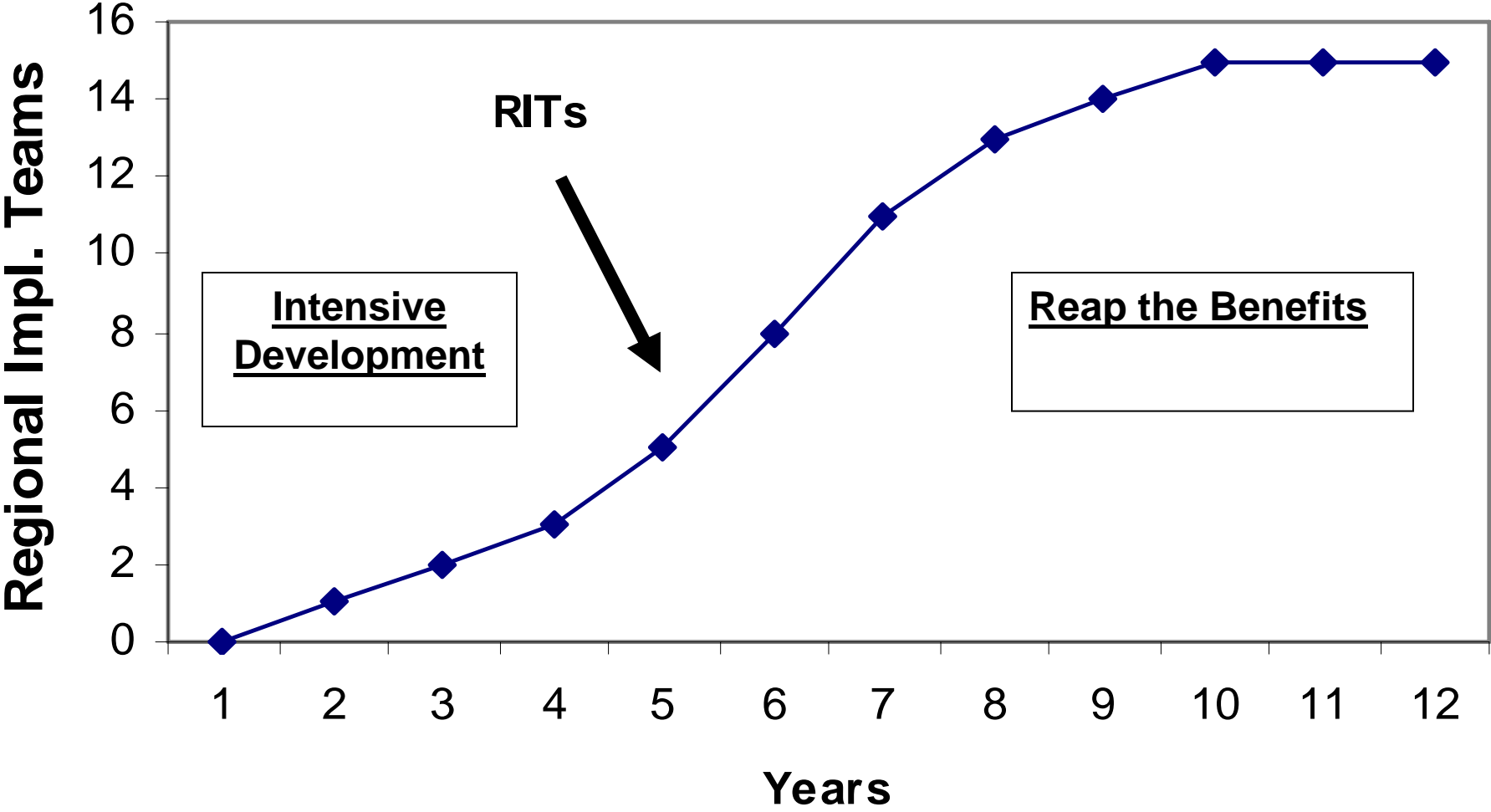
Problem

- 🚀 **Innovative practices do not fare well in existing organizational structures and systems**
- 🚀 **Organizational and system changes are essential to successful use of innovations**
 - 🚀 **Expect it**
 - 🚀 **Plan for it**

Implementation Science

- **Develop an infrastructure for implementation in each State (Implementation Teams)**
- **To support the effective use of evidence-based programs and other innovations in education and human service systems**
- **So practitioners can achieve better results each year for the next 50 years**

State Capacity Development



Implementation Science

- 🚩 **Pre-contemplation (Say what?)**
- 🚩 **Contemplation (Let me think about it.)**
- 🚩 **Preparation (I think I will do that.)**
- 🚩 **Action (I am trying it now.)**
- 🚩 **Implementation (I am working out the bugs as I try to do it.)**
- 🚩 **Maintenance (Say what?)**

Hall & George, 1978


Prochaska & DiClemente, 1982

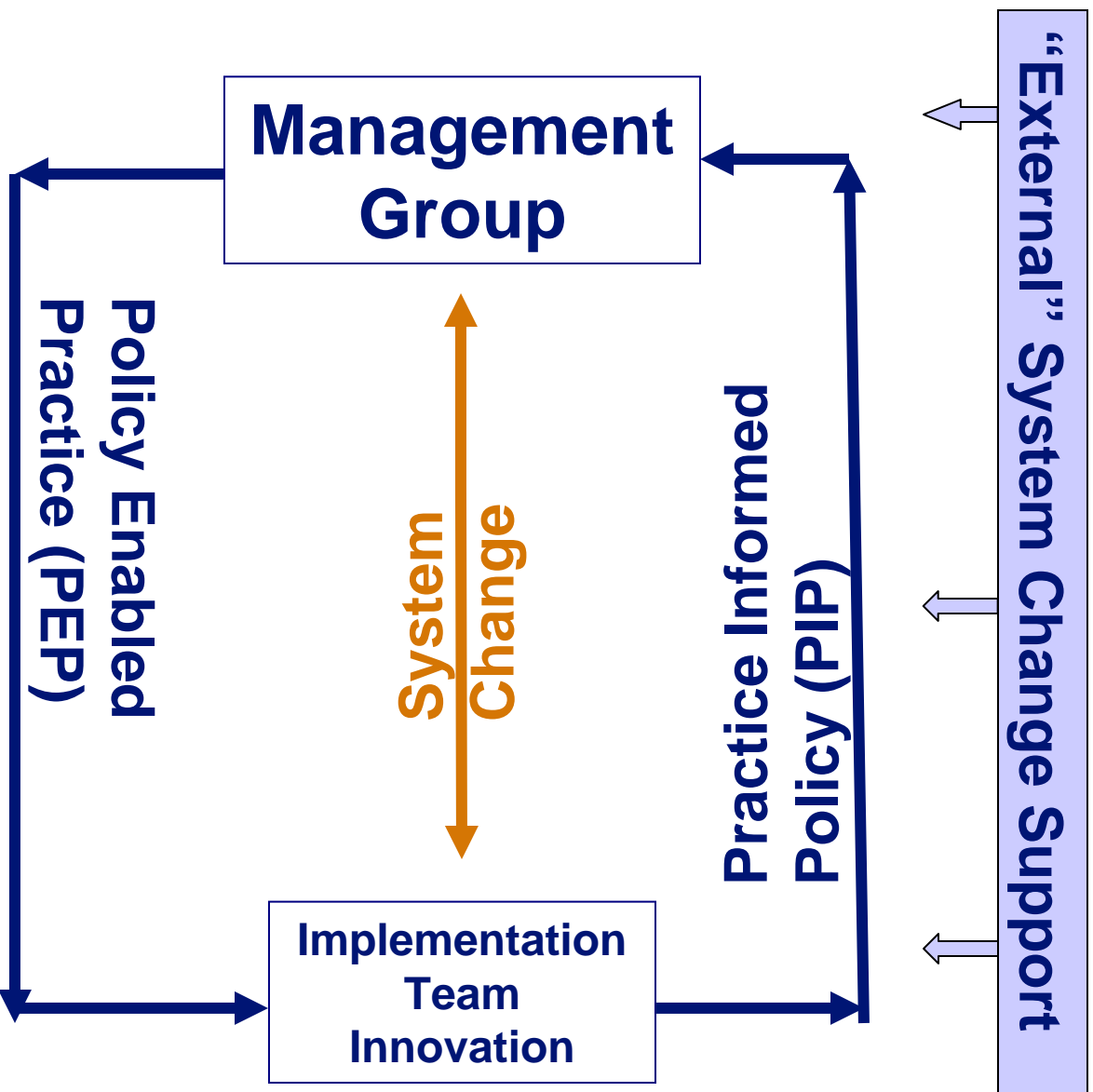
Implementation Science

Shewhart (1924); Deming (1948); Six-Sigma (1990)

- ▶ **Plan** – Develop specific things to do
- ▶ **Do** – Do them (make sure)
- ▶ **Study** – See what happens
- ▶ **Act** – Make adjustments
- ▶ **Cycle** – Do over and over again until the goal is reached (again)

Improvement Cycle Uses

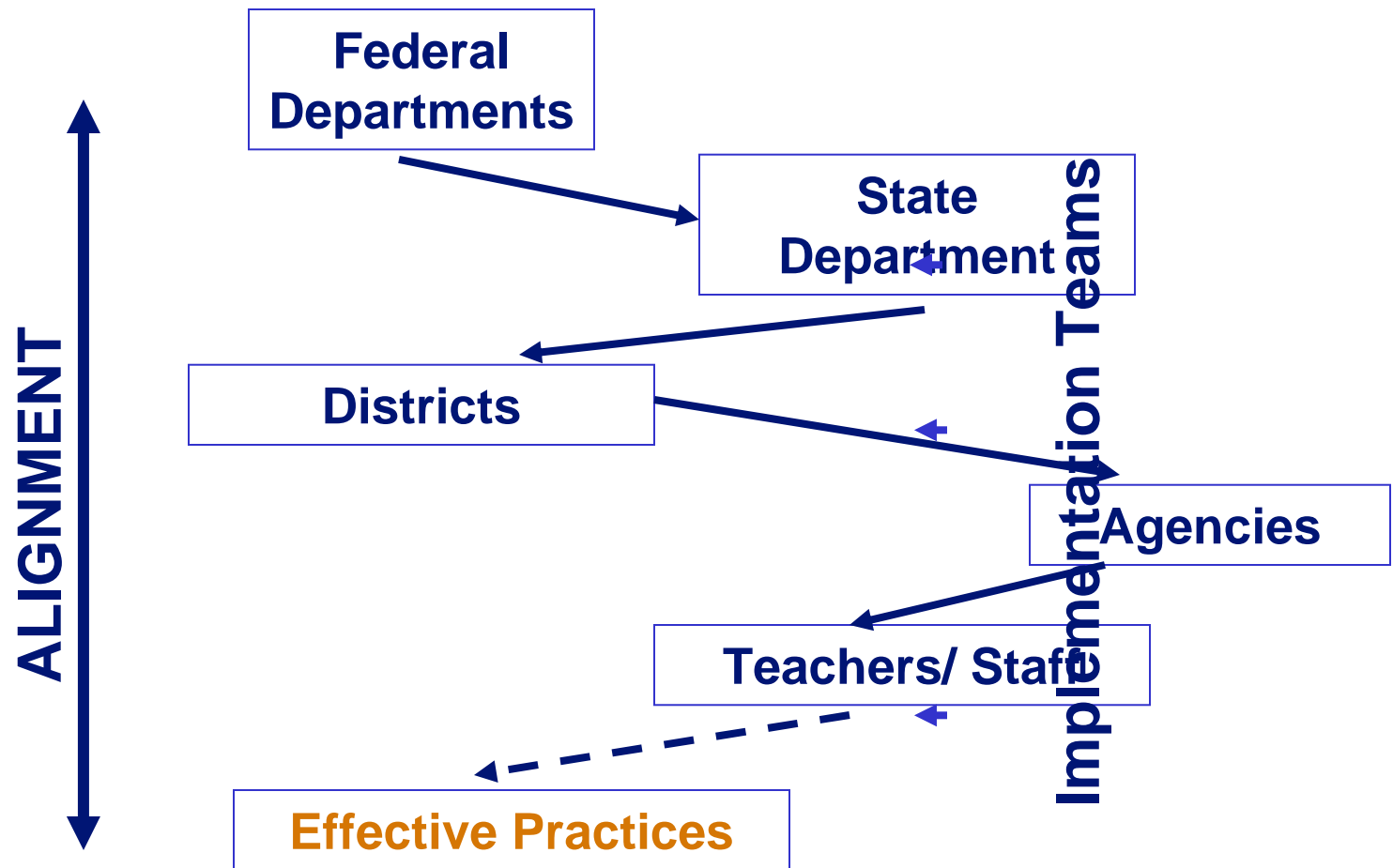
-  **Rapid Cycle Teams**
 -  **Problem-solving**
 -  **Practice Improvement**
-  **Transformation Zones**
-  **PEP – PIP Cycles**



Transformation Zone

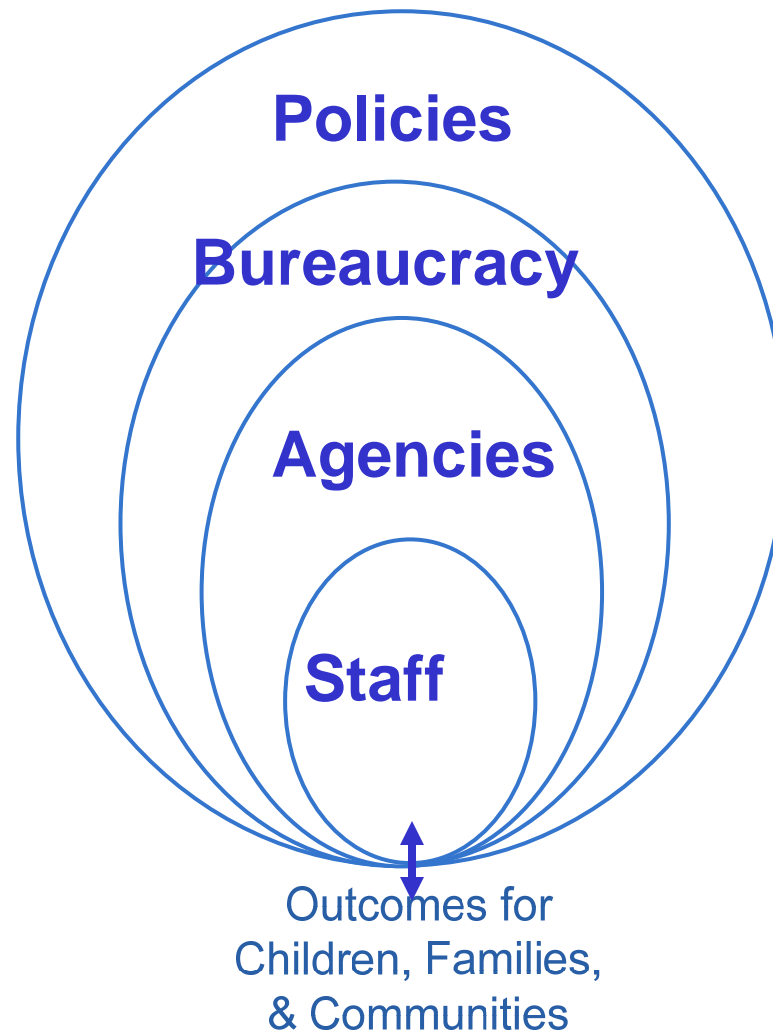
- A place to work out a functional version of an innovation
- Suspend/ bend the usual rules to find and solve usability problems
 - Expose facilitators and barriers within the organization (strengthen/ change)
 - Reveal facilitators and barriers in the system (strengthen/ change)
 - Identify/ develop implementation supports for the innovation

System Transformation



FORM SUPPORTS FUNCTION

Functional Systems





Coming Soon from

SAMHSA

2009 Science and Service Award Program



- 🚩 Do you know an organization/coalition currently **implementing** an evidence based practice in their local community?
- 🚩 Is the **implementation** of this program/innovation producing beneficial outcomes to the community?
- 🚩 Are they a national role-model for moving the evidence based practice from **science to service**?

If you answered “YES” to all of the above, check out:

<http://www.samhsa.gov/scienceandservice/>



For More Information

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<http://nirn.fpg.unc.edu/>
www.scalingup.org

<http://www.fpg.unc.edu/~nirn/resources/publications/Monograph/>



For More Information

Implementation Research: A Synthesis of the Literature



Fixsen, D. L., Naoom, S. F., Blase, K. A., Friedman, R. M. & Wallace, F. (2005). *Implementation Research: A Synthesis of the Literature*. Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute, The National Implementation Research Network (FMHI Publication #231).

Download all or part of the monograph at:

<http://www.fpg.unc.edu/~nirn/resources/publications/Monograph>

Thank You

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- ▶ Office of Special Education Programs (implementation capacity development center contract)