# *A Comparative Study of Early Childhood Education and Care in Selected High-Performing Countries*

**IEA 58th General Assembly**

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*Child Study Center, Yale University*
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# Presentation Overview

**Part I:** Why Now: Study Rationale

**Part II:** Goals, Design, Products

**Part III:** Preliminary Findings

**Part IV:** Building Blocks: Integrating the Findings

**Part V:** Using the Building Blocks: Lessons for ECEC Globally

# Part I

## Why Now: Study Rationale

# Around-the-Globe Trends

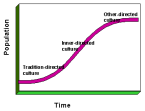
# Around-the-Globe Trends

## *Globalization*

- Ease of transport and prevalence of inter-connected economies

## *Technology*

- Instant communication, handheld technology, and online learning




## *Economic and societal changes*

- Greater mobility within/across countries, inter-ethnic interactions

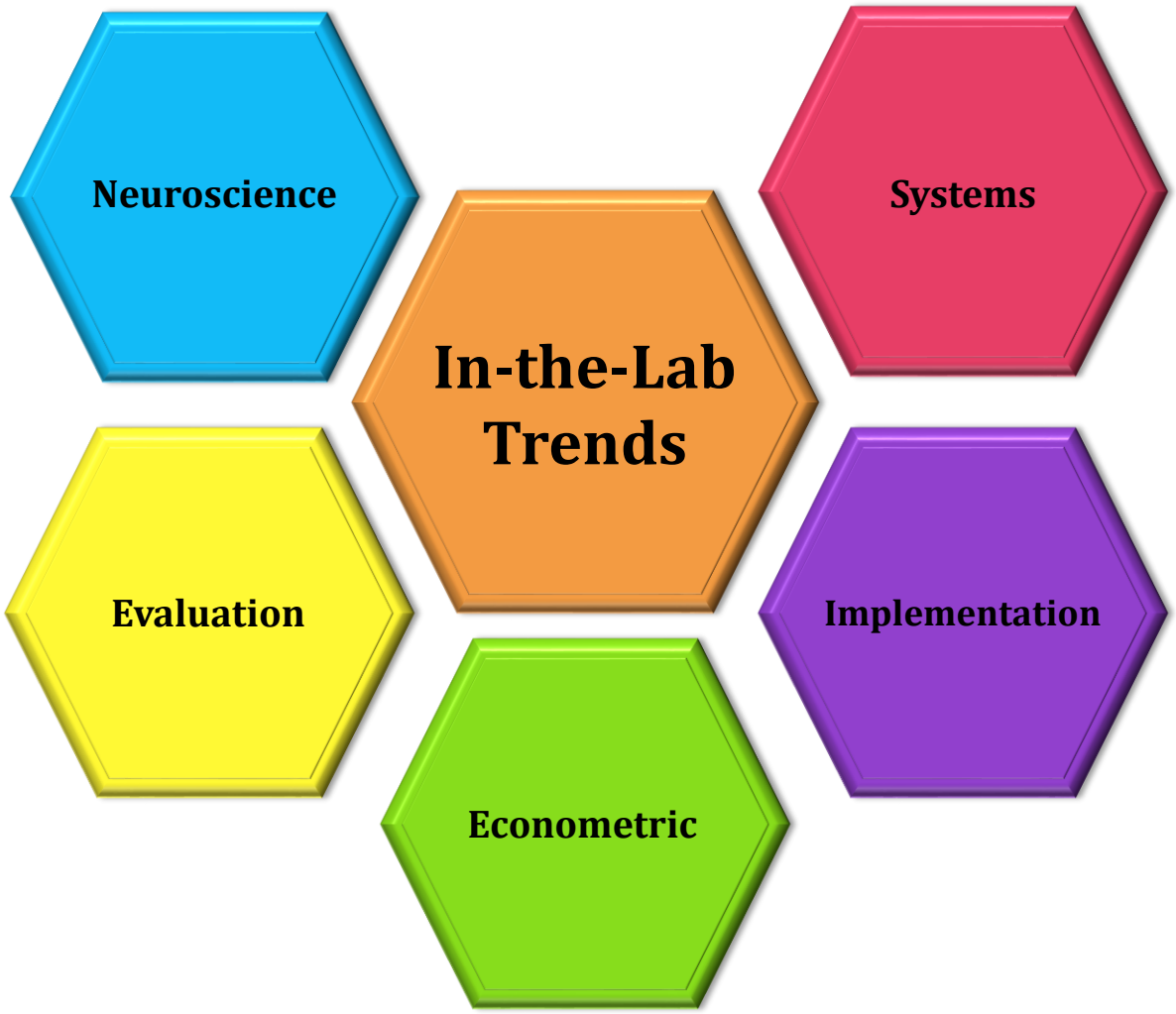
## *Gender roles*

- Women and girls taking on diverse leadership roles


## *Environment*

- Global concerns for the earth

# In-the-Lab Trends



# In-the-Lab Trends


## *Neuroscience*

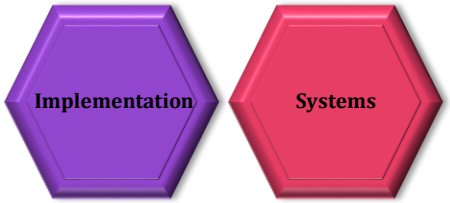
- **The early years are THE formative period of development**
  - **Young children's brains grow to 80% of adult size by age 3 and to 90% by age 5**
  - **Young children grow faster and learn more in their early years than in any other period of life**

## *Evaluation Science*

- **High-quality early childhood care and intervention can prevent negative effects from taking hold and have powerful benefits**
- **Strongest effects of high-quality care are found for children from families with the fewest resources and who are under the greatest stress**

## *Econometric Science*

- **Investments in high-quality programs produce economic results**
- **These savings are due to a reduction in social costs for incarceration, welfare dependence, teen pregnancy, special education, and reduced grade retentions**




# In-the-Lab Trends

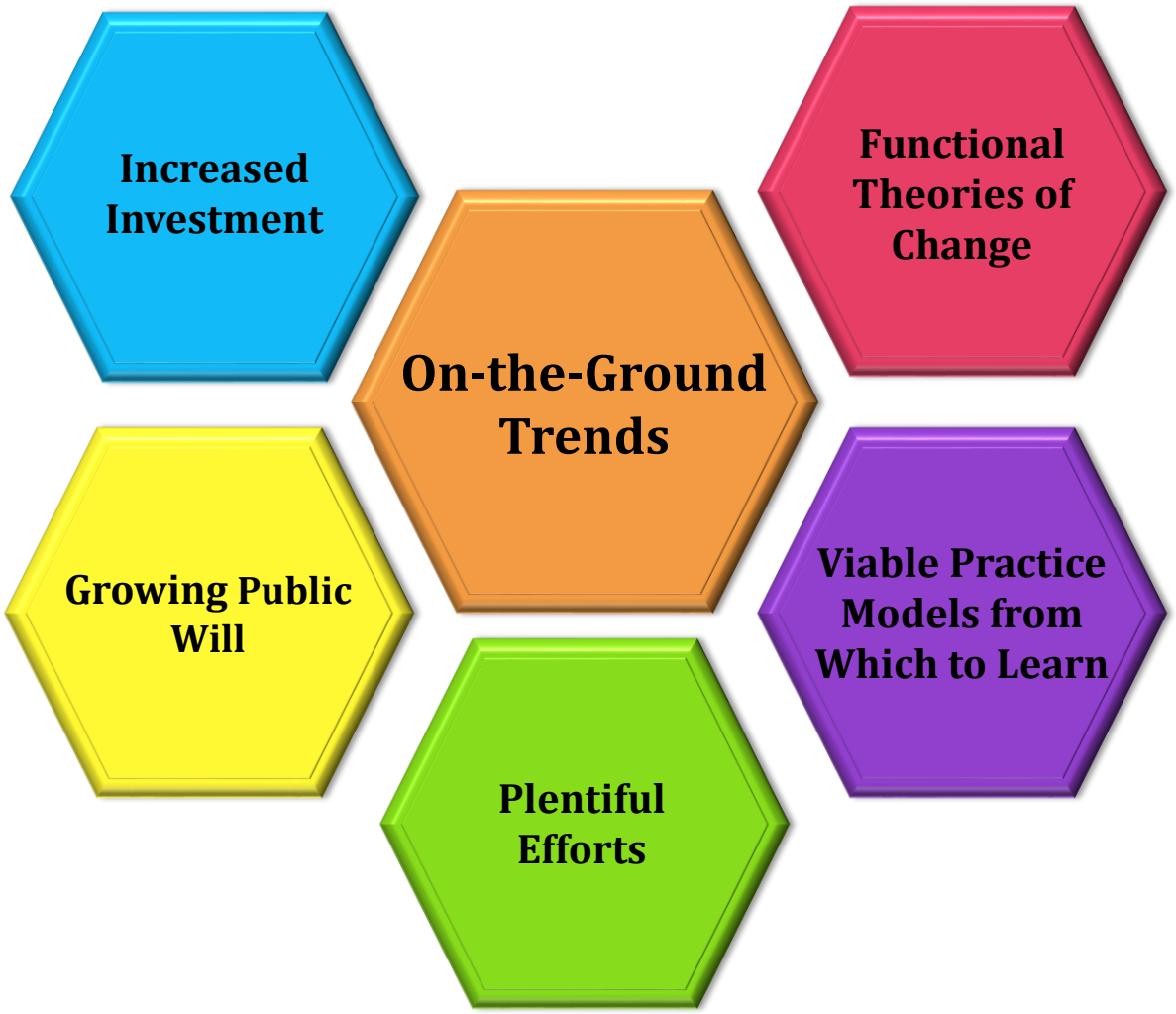
## *Implementation Science*

- **Implementation science strives to integrate research into policy and practice**

## *Systems Science*

- **Contends that if you separate the parts from the whole, you are reducing the ability to achieve goals**
- **Applies to early childhood because there are so many moving parts that must be considered together**

# On-the-Ground Trends



# On-the-Ground Trends

- ***Increased investment***
  - Many of the 116 countries with data increased their commitment to education – 38 by 1% or more of GNP between 1999 and 2012 (UNESCO , 2015)
- ***Growing public will***
  - Political and business leaders all extoll the benefits of ECE
  - ECEC is routinely reported in the press (Gardiner & Gustafsson-Wright, 2016)
- ***Plentiful efforts***
  - Much invention and experimentation, particularly for younger children (UNICEF, 2016)
- ***Viable Models of Practice***
  - Development of national early learning frameworks helps support ECEC quality and equity in countries worldwide
- ***New research and functional theories of change***
  - Methodologies for planning and evaluation promote social change in ECE, along with new theoretical models (Kagan et al., 2016)

*Gardiner, S. & Gustafsson-Wright, E. (2016). South Africa is the first middle-income country to fund impact bonds for early childhood development. Washington, DC: Brookings; Kagan, S. L., Araujo, M. C., Jaimovich, A., & Aguayo Y. C. (2016). Understanding systems theory and thinking: Early childhood education in Latin America and the Caribbean. In A. Farrell, S. L. Kagan, & E. K. M. Tisdall (Eds.), The SAGE handbook of early childhood research (pp. 163-184). London: SAGE Press; UNICEF. (2016). The state of the world's children 2016: A fair chance for every child. UNICEF; UNESCO. (2015). EFA Global Monitoring Report 2015: 2000–2015 – Achievements and challenges, UNESCO, Paris, March 2015, p. 242.*

# In-the-Field Challenges

# The Quality Challenge

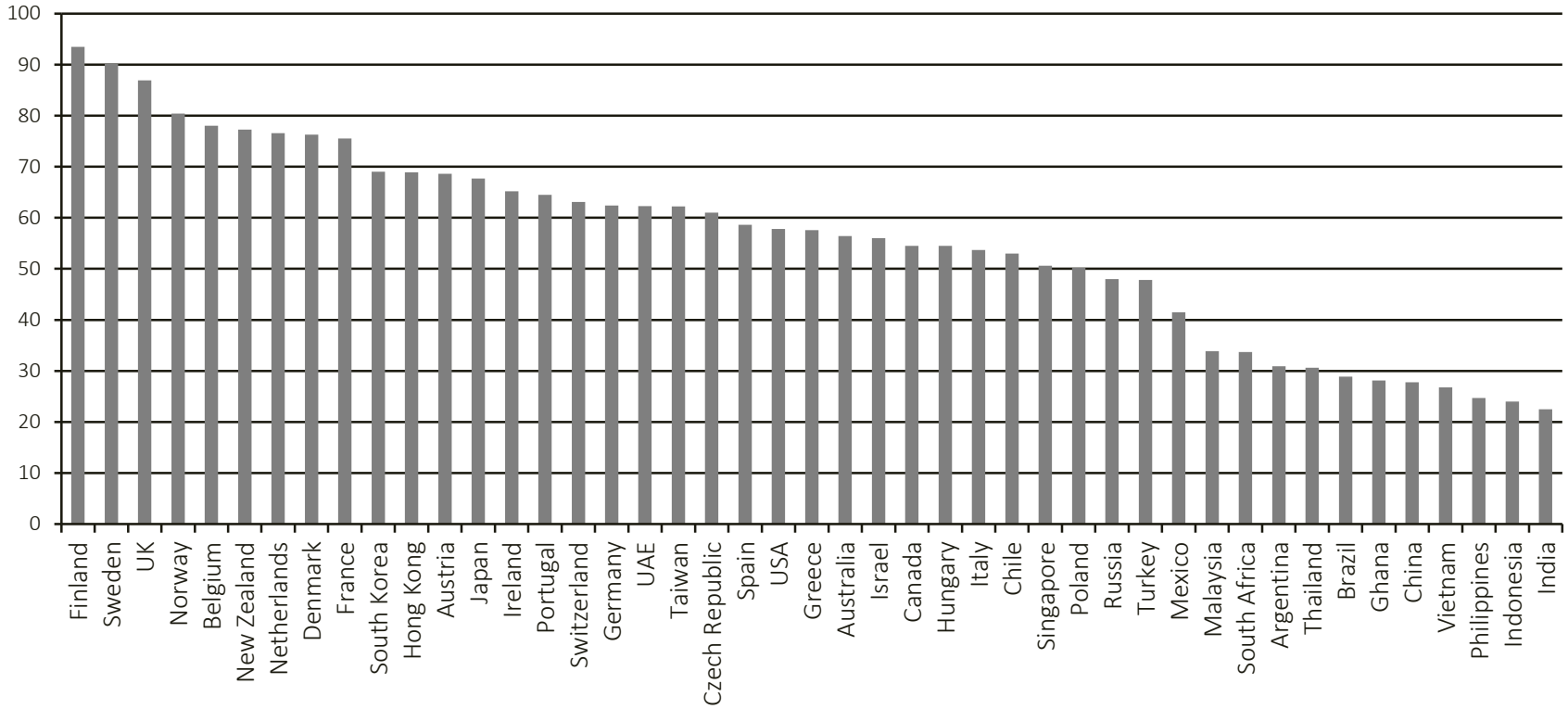
- ***Services for young children are not of high quality***
- ***Innocenti Report Card (UNICEF, 2008)***
  - Out of 25 OECD countries surveyed, only 3 meet all 4 benchmarks pertaining to quality (Sweden, Iceland, and Denmark)
  - Only 2 countries meet 3 of the quality benchmarks (Finland and France)
    - **Benchmarks for minimum level of staff training, minimum proportion of staff with higher level education, minimum staff-to-children ratio, and minimum level of public funding**



*UNICEF (2008). The child care transition: A league table of early childhood education and care in economically advanced countries. Florence, Italy: UNICEF.*

# The Quality Challenge

**Presence of well-defined quality* guidelines to cover basic ECEC needs**




- ***Quality is assessed according to: student-teacher ratio, average teacher wages, curriculum guidelines, teacher training, health and safety guidelines, date collection mechanisms, linkages, and parental involvement***

*Watson, J. (2012). Starting well: Benchmarking early education across the world. Economist Intelligence Unit. Retrieved from http://graphics.eiu.com/upload/eb/lienstartingwell.pdf .*

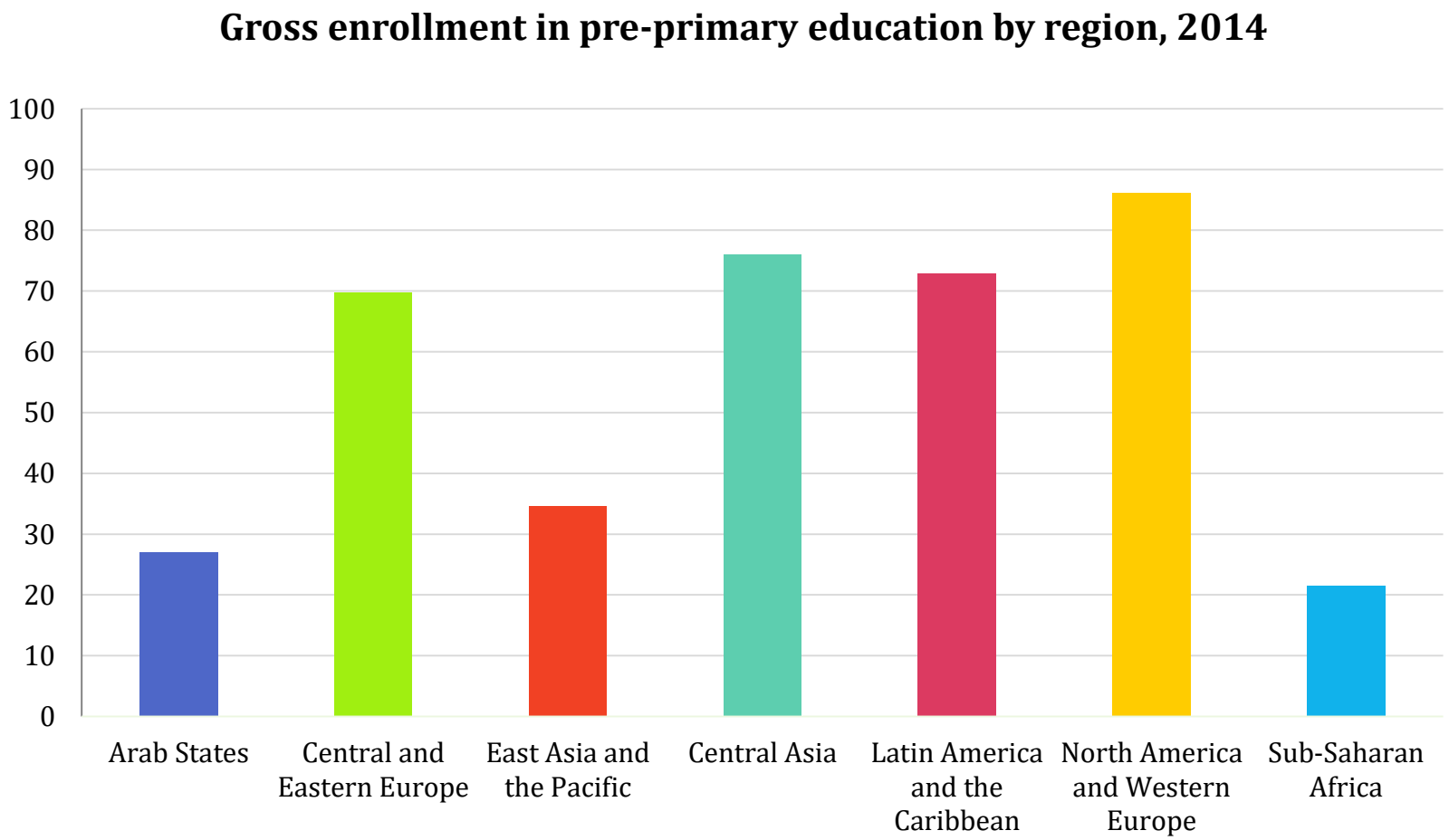
# The Equity/Inclusivity Challenge

- ***Different kinds of inequities by:***
  - Wealth
    - **Children living in the poorest households are up to 10x less likely to attend ECEC than those in the richest (UNICEF, 2016)**
  - Geographic region
    - **Only 1 in 5 children in developing countries were participating in pre-primary education in 2011 (Global Partnership for Education, 2013)**
  - Urban/rural residence
    - **In two-thirds of OECD countries surveyed, enrollment in pre-primary education was lower in rural settings than in cities (OECD, 2017)**

*Global Partnership for Education. (2013). Results for learning report.; OECD (2017). Trends Shaping Education Spotlight 9: Country Roads, Education and Rural Life, OECD . Retrieved from https://www.oecd.org/edu/ceri/spotlight9-CountryRoads.pdf. UNICEF Office of Research. (2016). Fairness for Children: A league table of inequality in child well-being in rich countries, Innocenti Report Card 13, UNICEF Office of Research – Innocenti, Florence;*

# Equity/Inclusivity

- ***Inequities by geographic region***

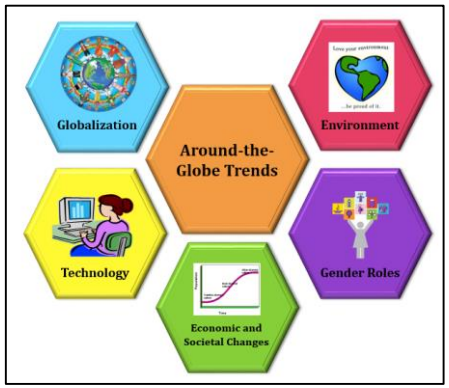


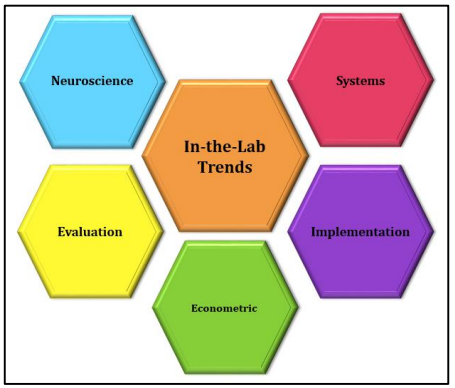

*UIS. (2015). Gross enrollment in pre-primary education, both sexes. UNESCO Institute of Statistics.*

# The Efficiency/Sustainability Challenge

- ***Conflicting expectations, misaligned system requirements, and programmatic firewalls can create barriers to an efficient ECEC system***
  - Results in service duplications and the diversion of funds from direct services
  - Lack of coordination across levels of government means investments are not operating as efficiently or effectively as possible
- ***Countries without sustained funding and governance are characterized by:***
  - Fewer positive gains for children
  - More difficulty in establishing equitably distributed and inclusive programs
  - Lower levels of quality
  - More difficulty in implementing all infrastructure gears (Bertram, 2016)

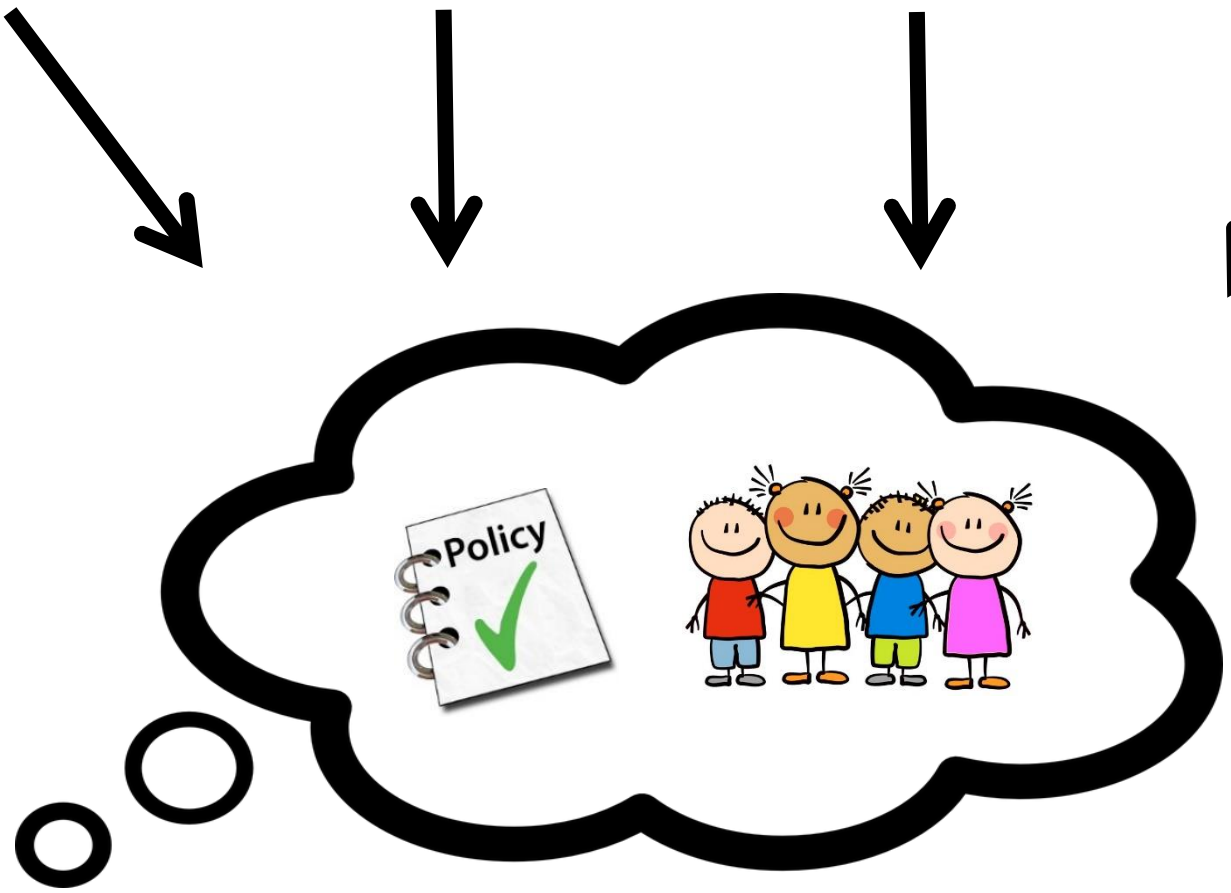
*Bertram, T., & Pascal, C. (2016). Early childhood policies and systems in eight countries: Findings from IEA's early childhood education study. IEA; Cooper, D., & Costa, K. (2012). Increasing the Effectiveness and Efficiency of Existing Public Investments in Early Childhood Education: Recommendations to Boost Program Outcomes and Efficiency. Center for American Progress. Retrieved from https://www.americanprogress.org/wp-content/uploads/issues/2012/06/pdf/earlychildhood.pdf*


Globalization
Around-the-Globe Trends
Environment
Technology
Gender Roles
Economic and Societal Changes


Neuroscience
Systems
In-the-Lab Trends
Evaluation
Implementation
Econometric


Increased Investment
Functional Theories of Change
On-the-Ground Trends
Growing Public Will
Viable Practice Models
Plentiful Efforts


Quality
Sustainability
In-the-Field Challenges
Equity
Efficiency
Inclusivity


Policy

All Children are Competent Learners

All Children are Equal Rights Bearers

All Children Live in Complex Contexts


Services that Promote High ***QUALITY*** Pedagogy and Learning

***INCLUSIVE*** Services that Distribute a Range of Services ***EQUITABLY***

Services that are ***EFFICIENT, ORGANIZED,*** and ***SUSTAINED***

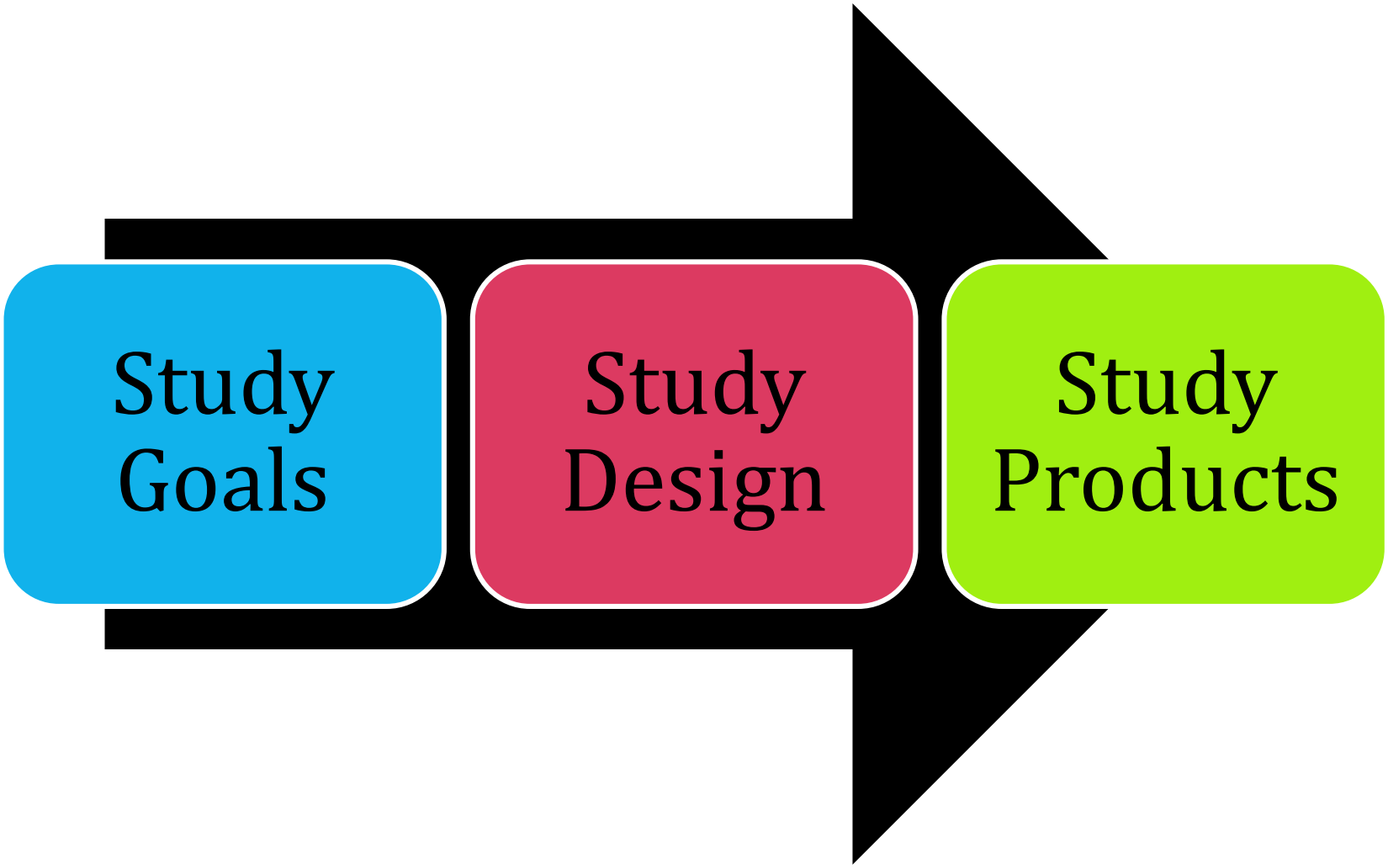
# Why this Study, Now?

- ***It's a new era***
  - Unprecedented global changes and ECEC investments make this the perfect time
  - Major challenge to optimize ECEC performance
    - **International benchmarking assessments show wide inter- and intra-country variation in student performance**
  - Need for fresh thinking
    - **Pay more attention to quality, equity/inclusivity, and sustainability/efficiency**

# Three Areas of Focus

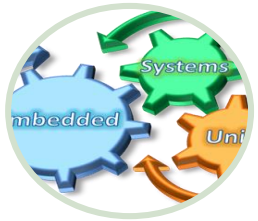
# Part II

## Goals, Design, Products


Study Goals
Study Design
Study Products

# Study Goal: To Improve ECEC

1. **Learn from Best Countries**




2. **Use State of the Art Theories and Knowledge**

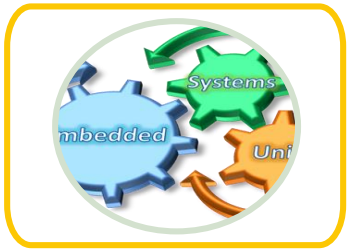

3. **Produce a Quality Study**

4. **Create Useful Products for Diverse Audiences**

# Goal 1: Learn from Best Countries

- *Sought countries demonstrating academic excellence, geographical/cultural diversity, an ingenuity in ECEC systems*
- *Two data sets: (i) PISA, (ii) Economist Intelligence Unit Report*

| | PISA HIGH | PISA MEDIUM | PISA LOWER |
|---|---|---|---|
| **ECONOMIST HIGH** | • Netherlands<br>• South Korea | • Finland<br>• Belgium | • Denmark<br>• New Zealand<br>• Norway<br>• UK<br>• France |
| **ECONOMIST MEDIUM** | • Hong Kong<br>• Switzerland | • Germany<br>• Austria | • Czech Republic |
| **ECONOMIST LOWER** | • Japan<br>• Singapore<br>• Taiwan | • Canada<br>• Australia | |



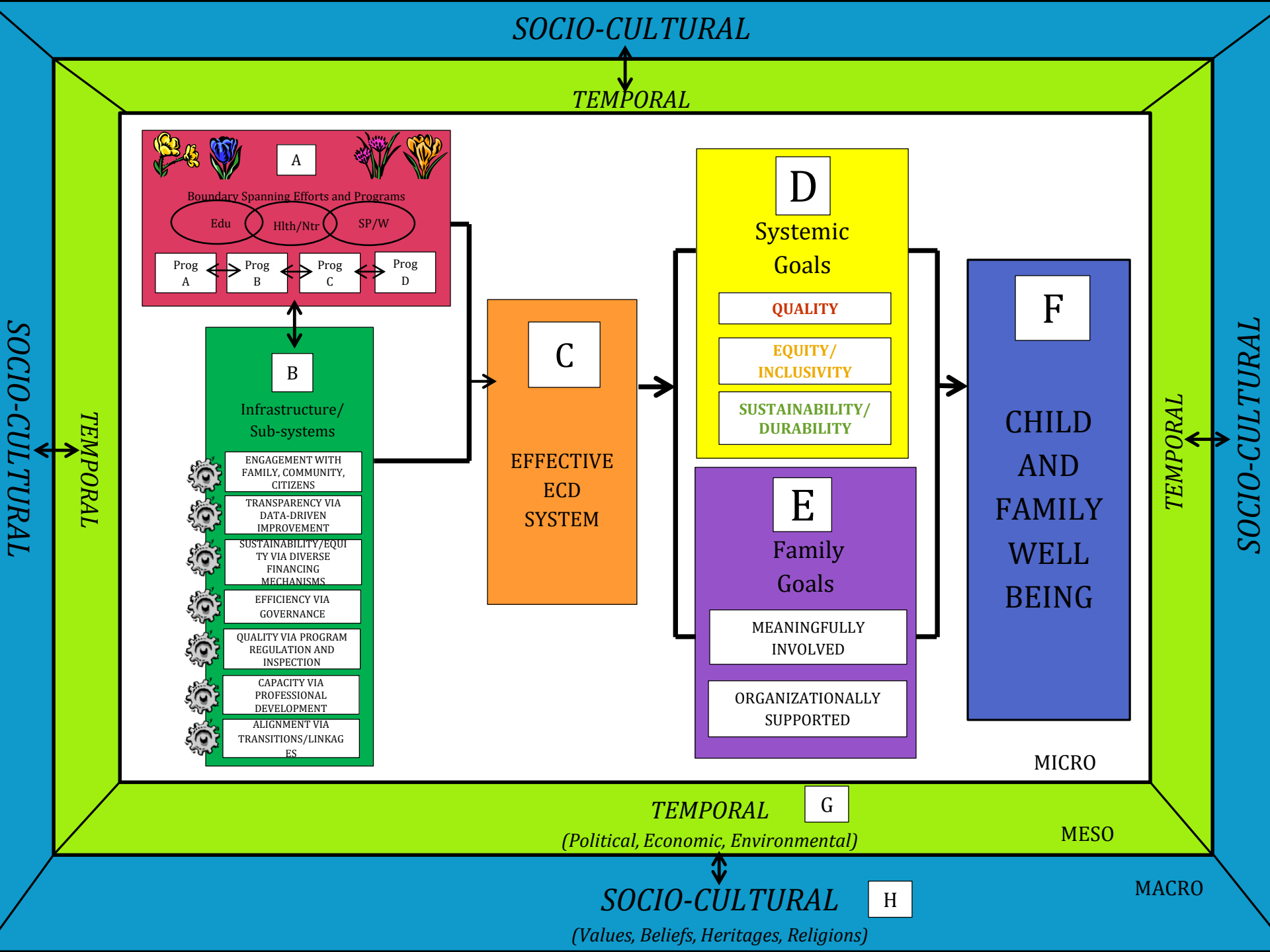

# Goal 2: Use State of the Art Theories and Knowledge

**Theory of Change**

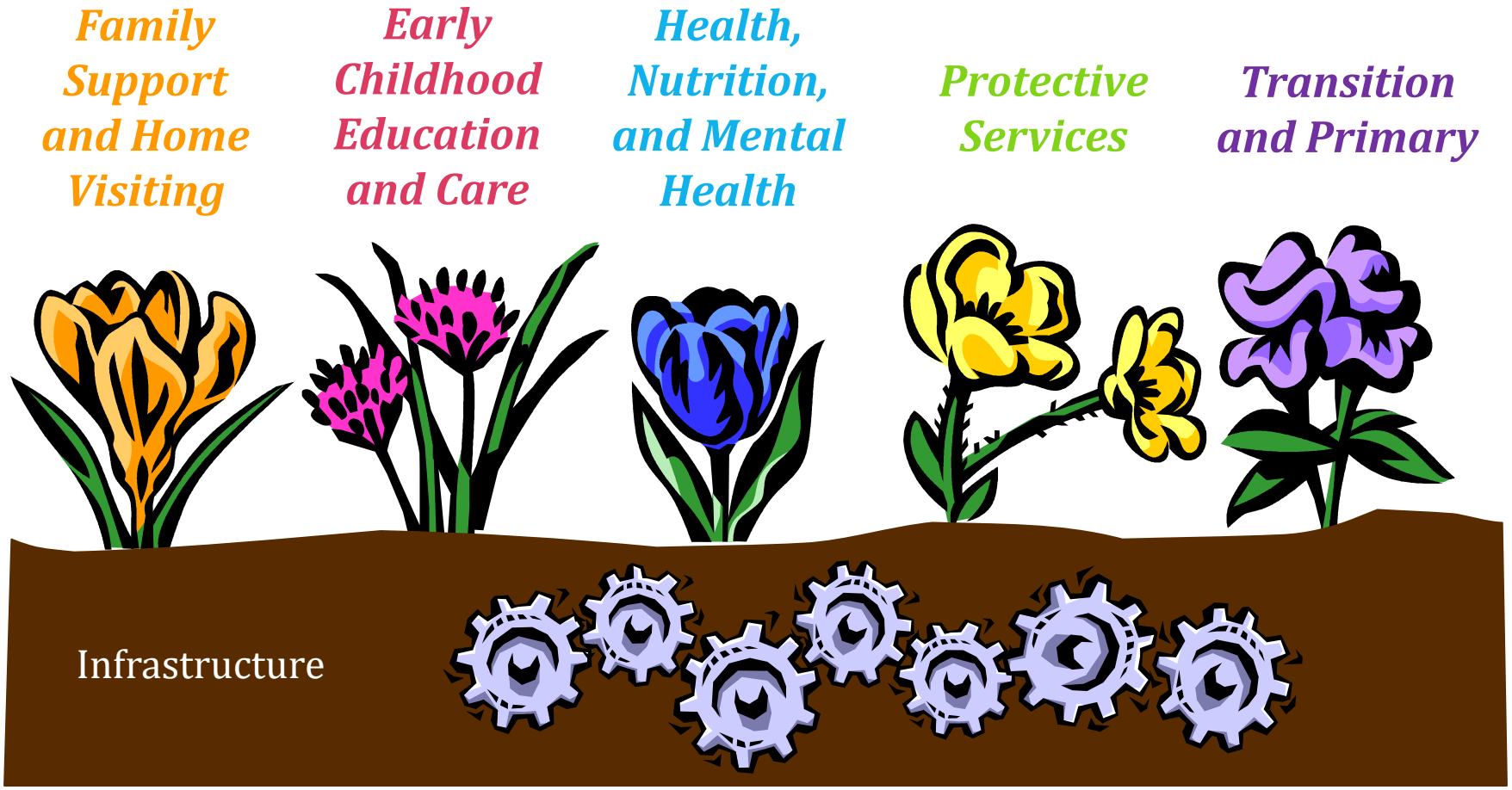
- Inputs
- Outputs
- Outcomes

**Systems Thinking**

- Programs
- \+
- Infrastructure
- =
- System


SOCIO-CULTURAL
TEMPORAL
SOCIO-CULTURAL
TEMPORAL
SOCIO-CULTURAL
TEMPORAL
A
Boundary Spanning Efforts and Programs
Edu
Hlth/Ntr
SP/W
Prog A
Prog B
Prog C
Prog D
B
Infrastructure/ Sub-systems
ENGAGEMENT WITH FAMILY, COMMUNITY, CITIZENS
TRANSPARENCY VIA DATA-DRIVEN IMPROVEMENT
SUSTAINABILITY/EQUITY VIA DIVERSE FINANCING MECHANISMS
EFFICIENCY VIA GOVERNANCE
QUALITY VIA PROGRAM REGULATION AND INSPECTION
CAPACITY VIA PROFESSIONAL DEVELOPMENT
ALIGNMENT VIA TRANSITIONS/LINKAGES
C
EFFECTIVE ECD SYSTEM
D
Systemic Goals
QUALITY
EQUITY/ INCLUSIVITY
SUSTAINABILITY/ DURABILITY
E
Family Goals
MEANINGFULLY INVOLVED
ORGANIZATIONALLY SUPPORTED
F
CHILD AND FAMILY WELL BEING
MICRO
TEMPORAL
G
(Political, Economic, Environmental)
MESO
SOCIO-CULTURAL
H
(Values, Beliefs, Heritages, Religions)
MACRO

# The ECEC System



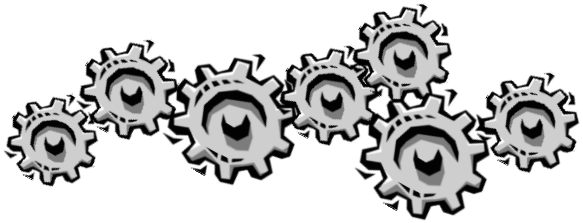

*Source: Kagan, S. L., & Cohen, N. E. (1997). Not by chance: Creating an early care and education system. New Haven, CT: Yale University Bush Center in Child Development and Social Policy.*

# Thinking About the ECEC System

## Systems

## =

## Services + Infrastructure



## 8 – 1 = 0

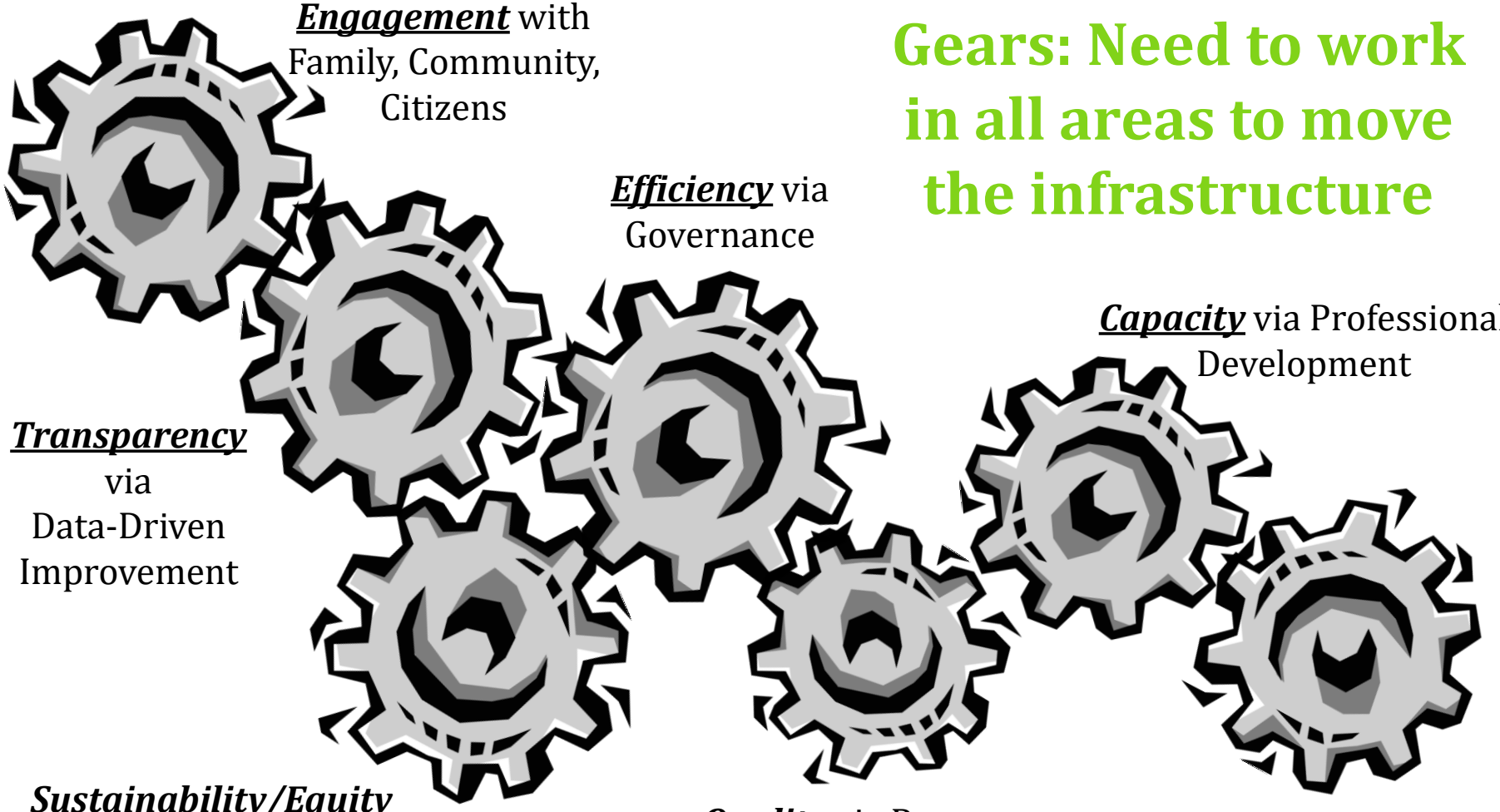
## Gears: Need to work in all areas to move the infrastructure

***Engagement*** with Family, Community, Citizens

***Efficiency*** via Governance

***Capacity*** via Professional Development

***Transparency*** via Data-Driven Improvement



***Sustainability/Equity*** via Diverse Financing Mechanisms

***Quality*** via Program Regulation and Inspection

***Alignment*** via Transitions/Linkages

## 1. *Engagement with Family, Community, Citizens*

- Major commitment to family/community engagement in programs, governance
- Helps keep programs responsive to community needs and builds constituencies for young children

## 2. *Transparency via Data-Driven Improvement*

- Data collection on program quality and services
- Data collection on staff and their preparation/adequacy for roles
- Data collection on children and families regarding their access to services and the outcomes of their participation

## 3. *Sustainability/Equity via Diverse Financing Mechanisms*

- Too much focus on quantity, not quality
- Need consistency in funding
- Need to blend public and private funds inventively

## 4. *Efficiency via Governance*

- Horizontal debate: Which ministry (e.g., health, education)
- Vertical debate: Which level (e.g. local, regional)
- Governance brings clarity on who does what, for whom, when, and with what authority and accountability

## 5. *Quality via Program Regulation and Inspection*

- Conducted regularly by professionals
- Information from inspections needs to be used for quality improvement

## 6. *Capacity via Professional Development*

- Pre-service and In-service
- Consistent requirements for all teachers

## 7. *Alignment via Transitions/Linkages*

- From home to pre-primary to primary
- Among health, education, social services


# Goal 3: Produce a Quality Study

**Clear Research Questions**

- **What's:** What ECEC policies and systems frameworks are in place?
- **How's:** How is ECEC system effectiveness similar or different?
- **Why's:** Why do countries vary in their commitments to ECEC?

**Thorough Document Review**

- 16 Prior ECEC Systems Studies = Compendium
- Laws, policies, ECEC frameworks, curriculum, country data

**Solid Data and Analysis**

- Common and piloted protocol
- Common informant types
- Validated analysis process


# Goal 3: Produce a Quality Study

Virtual processes

**Memos**

- NY Team drafts regular memos to co-PIs with Action Requests

**Feedback grid**

- Action Request responses are compiled in a grid and shared with the group

**Skype agenda**

- NY Team designs an agenda for the Skype call to address outstanding questions

**Skype call**

- NY Team and all co-PIs join a monthly call to iron out thorny issues and come to agreement

In-person processes

**Meeting 1 (June, 2016)**

- Preliminary compendium analysis
- Study design and parameters
- Case study outline
- Data collection procedures (interview sample and questions)
- Writing and review process

**Meeting 2 (April, 2017)**

- Secondary compendium analysis
- Country summaries
- Building block development
- Transcendent theme development
- Products and dissemination discussion

# Goal 4: Create Useful Products for Diverse Audiences

## Case Studies

### Book I: *Reconceptualizing Quality: Building Blocks for Effective ECEC Systems*

- Provides necessary elements to build a quality ECEC system
- Framed around essential building blocks for future ECEC systems

### Book II: *Reconceptualizing Quality: Six High-Performing Countries Leading by Example*

- Provides narrative stories about ECEC systems in six high-performing countries
- Summarizes the practice and policy implications derived from the stories

### Diverse Policy Materials

- NCEE-hosted webpage
- Direct press/policymaker outreach
- Branded, cross-platform social media campaign

# Part III

## Preliminary Findings

# Case Studies


Australia


England


Finland


Hong Kong


Republic of Korea


Singapore

Integrated Analysis: 15 Essential Building Blocks

# Australia

Collette Tayler, Ph.D. University of Melbourne

- ***Summary:***
  - Sizeable, diverse nation with mixed market economy
  - Federal system places majority of responsibility on states for education
  - Increasing government interest and investment in ECEC at all levels
- ***Key findings:***
  - National reform agenda established National Quality Framework (NQF) and Australian Children's Education and Care Quality Authority (ACECQA)
  - Strong and well-implemented framework provides a pedagogical framework that transcends states and territories

# England

Kathy Sylva, Ph.D. University of Oxford

- ***Summary:***
  - Mixed public-private system provides near-universal provision
  - Increasing public investment in ECEC targets access and quality for three-year-olds
- ***Key findings:***
  - Strong emphasis on parent and community involvement in ECEC
  - First-rate inspection system provides program accountability to parents, policymakers, and the public
  - Data rigorously collected and used extensively as tools for pedagogical and program improvement

# Finland

Kristiina Kumpulainen, Ph.D.

University of Helsinki

- ***Summary:***
  - Consistently the highest-achieving European nation on PISA
  - Right to equitable and quality ECEC is a cultural imperative
  - Pre-primary education is a compulsory requirement and statutory duty for all Finnish municipalities
- ***Key findings:***
  - Centralized national core curriculum for basic education leaves room for local and regional specificities
  - Pre-primary education curriculum focuses on child individuality, active learning, and initiative
  - Opportunities for PD contribute significantly to program quality

# Hong Kong

Nirmala Rao, Ph.D. University of Hong Kong

- ***Summary:***
  - High-achieving, densely populated, competitive society
  - Underlying Confucian ideology emphasizes education and success
  - Since mid-1990s, increasing focus on high quality ECEC
- ***Key findings:***
  - Successful mix-market delivery system: considerable centralization despite significant private provision
  - Responsive policy-making, good governance, educated and entrepreneurial population

# Republic of Korea

## Mugyeong Moon, Ph.D. Korea Institute of Child Care and Education

- ***Summary:***
  - Overcame inauspicious beginnings to produce one of the most educated and skilled workforces in the world
  - Extremely efficient ECEC system
    - Education spending is half of U.S., as a proportion of GDP
    - Enrollment rates for preschool education exceed 95%
- ***Key findings:***
  - The recently established Nuri ("World") Curriculum emphasizes holistic development and responsible citizenship
  - Robust commitment to research; government-funded institutes support knowledge development in ECEC

# Singapore

Rebecca Bull, Ph.D. National Institute of Education

- ***Summary:***
  - Consistently high-achieving on international benchmark exams
  - Diverse education landscape, rapid expansion in private sector
  - Spirit of innovation and experimentation within ECEC
- ***Key findings:***
  - Centralized curriculum spans from birth through the early years of school to foster effective transitions
  - Early Childhood Development Agency established to ensure access to affordable and quality ECEC
  - Consolidated approach to governance within the public sector

# Part IV

## Building Blocks: Integrating the Findings

| | | | |
|---|---|---|---|
| ***I. Strong, Stable Policy Foundations*** | I.1. Supportive, Stable, and Aligned Social Context | I.2. Policy Strategies Documents that are Incrementally and Consistently Implemented | I.3. Organized and Supportive Constituents |
| ***II. Knowledgeable and Supported Teachers/Families*** | II.1. An Approach to Develop and Maintain a Well-Trained, Compensated, Respected Workforce | II.2. An Approach to Develop and Maintain Policy and Pedagogical Leadership | II.3. Engaged and Knowledgeable Families and Communities |
| ***III. Comprehensive Services, Coordinating Mechanisms*** | III.1. Diverse Array of Comprehensive ECEC Services | III.2. Sufficient Funding for Baseline Services And Targeted Populations | III.3. Coordinating Mechanisms |
| ***IV. Data to Drive Improvement*** | IV.1. Effective Production and Use of Child Data | IV.2. Effective Monitoring System that Collects and Uses Program Data | IV.3. Effective Production and Use of Research |
| ***V. Informed, Individualized, and Continuous Pedagogy*** | V.1. Clear Articulation and Implementation of Child-Centered Pedagogy | V.2. Commitment to Individualization for All Children | V.3. Continuity in Children's Experiences |

# The Building Blocks


## *I. Strong, Stable Policy Foundations*

- **Context matters**
- Effective ECEC systems have clearly articulated policies supported by organized constituencies
- Countries that provide effective services are bolstered by contexts that are durable and supportive of families

# The Building Blocks


## *II. Knowledgeable and Supported Teachers and Families*

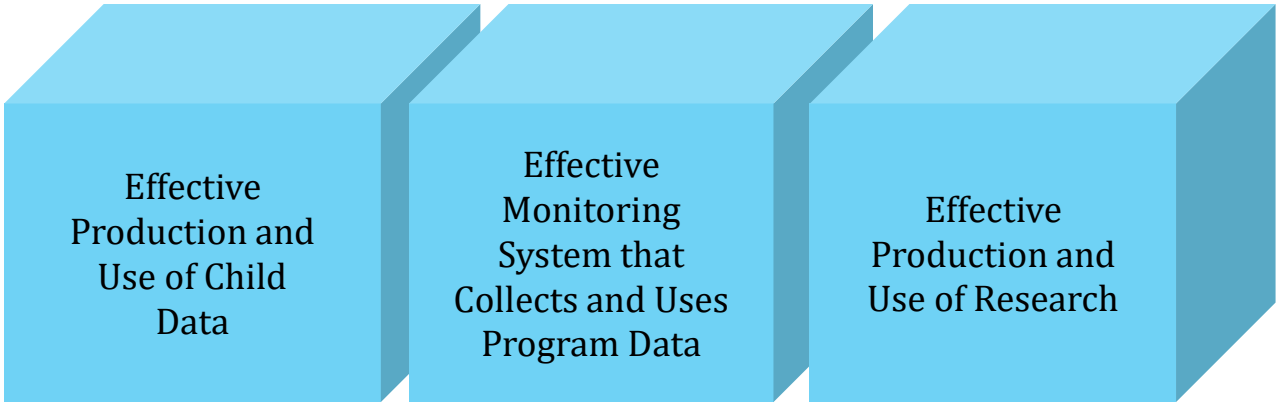
- **People matter**
- Effective ECEC systems are conditioned upon the people who create, support, and work within them
- Leadership of the system/programs are central to success, as well as a well-qualified and compensated workforce

# The Building Blocks


## *III. Comprehensive Services and Coordinating Mechanisms*

- **<u>Services and structures matter</u>**
- Effective ECEC systems pay attention to the ways in which services are organized, governed, and delivered
- Delivery is not haphazard, but planned and orchestrated

# The Building Blocks




## *IV. Data to Drive Improvement*

- **Data and its use matter**
- Effective ECEC systems accord much weight to the collection and effective use of different kinds of monitoring data

# The Building Blocks


## *V. Informed, Individualized and Continuous Pedagogy*

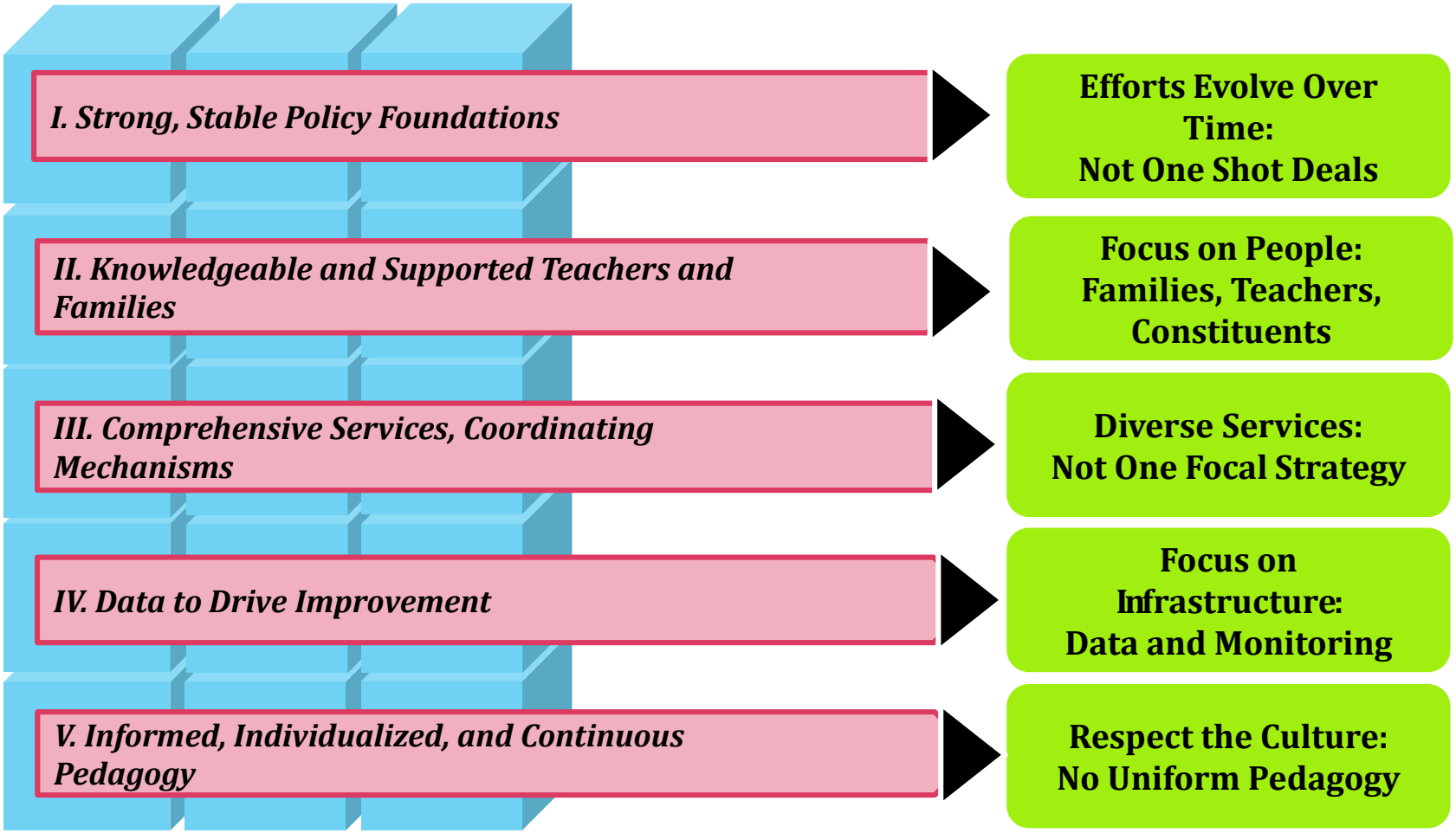
- **<u>Pedagogy matters</u>**
- Effective ECEC systems accord importance to individualization, and addresses the importance of continuity and transitions

# Part V

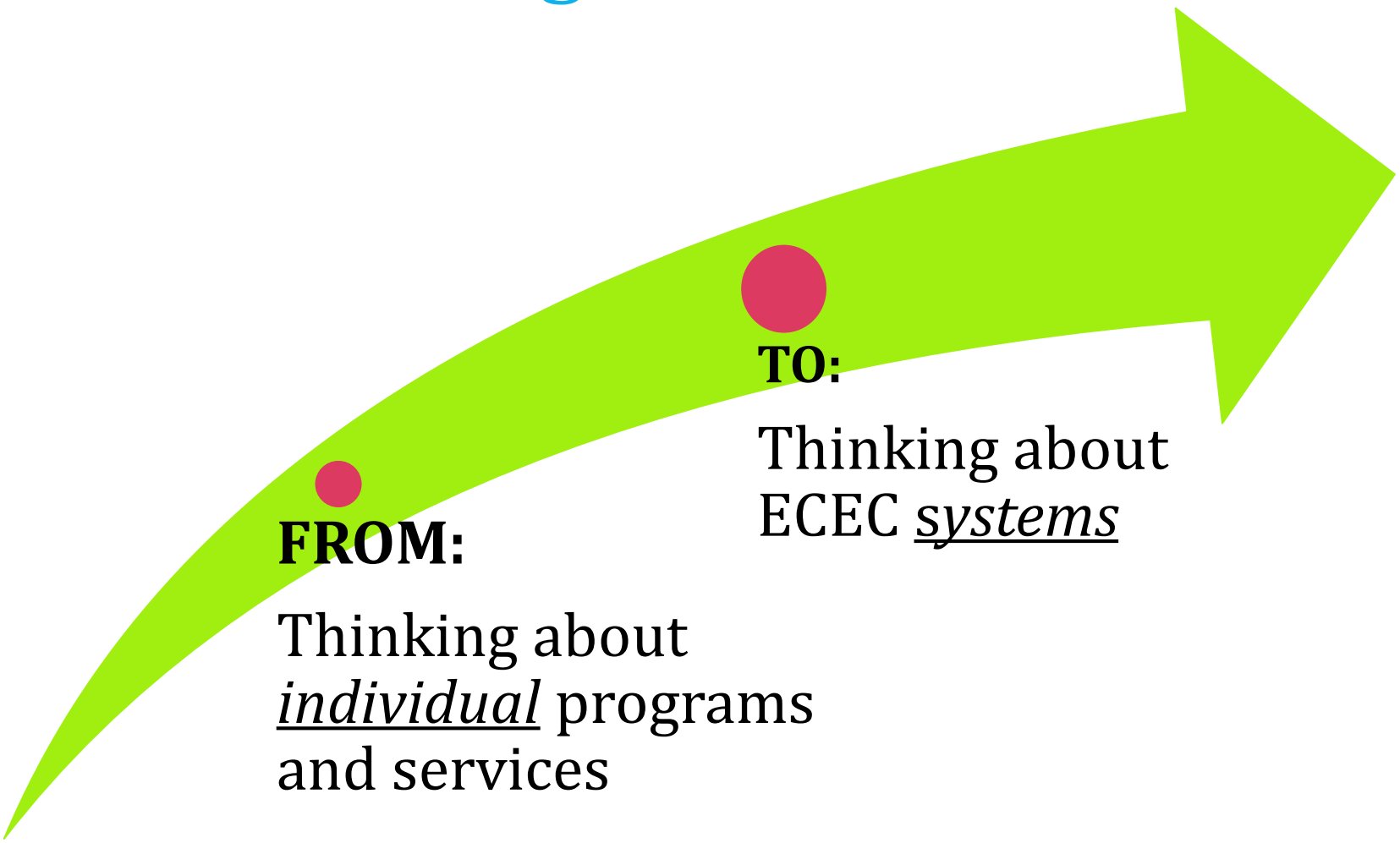
## Using the Building Blocks: Lessons for ECEC Globally

# Lessons We Should Learn

# Using the Building Blocks: Lessons We Should Learn



# No Matter What the Strategy, Need to Change the THINKING




Think different.

# Think Different

- ***Steve Jobs to John Sculley:***
  - "Do you want to spend the rest of your life selling water, or do you want a chance to change the world?"
- ***They did revolutionize six industries:***
  - Personal computers, animated movies, music, phones, tablet computing, and digital publishing

***"The people who are crazy enough to think they can change the world are the ones who do."***

***Apple's "Think Different" Commercial 1997***
***Foreword to Walter Isaacson's book, Steve Jobs***