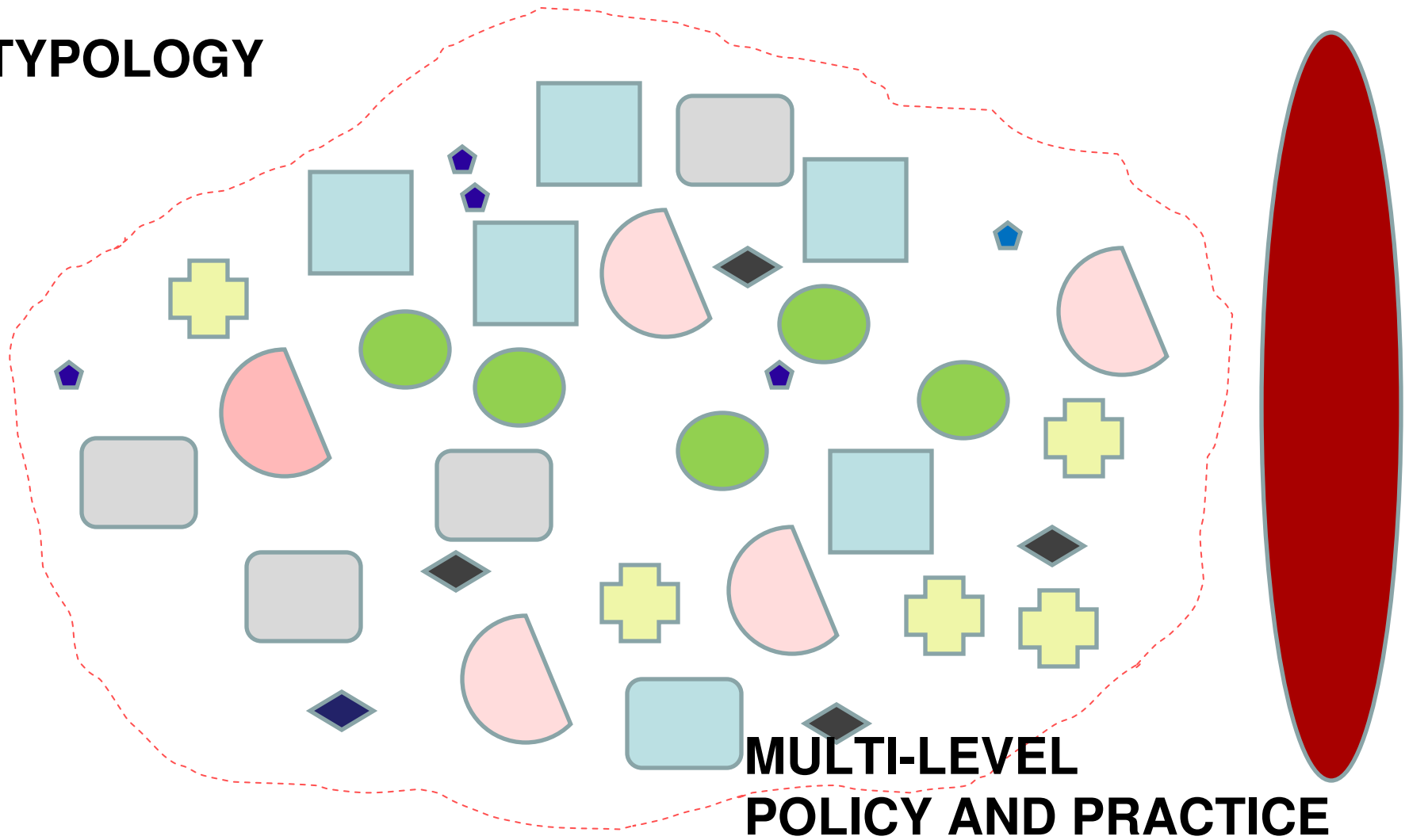
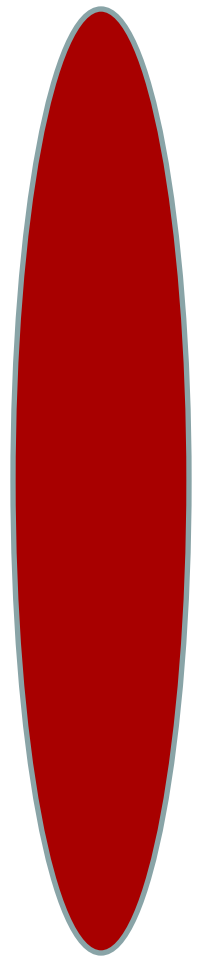
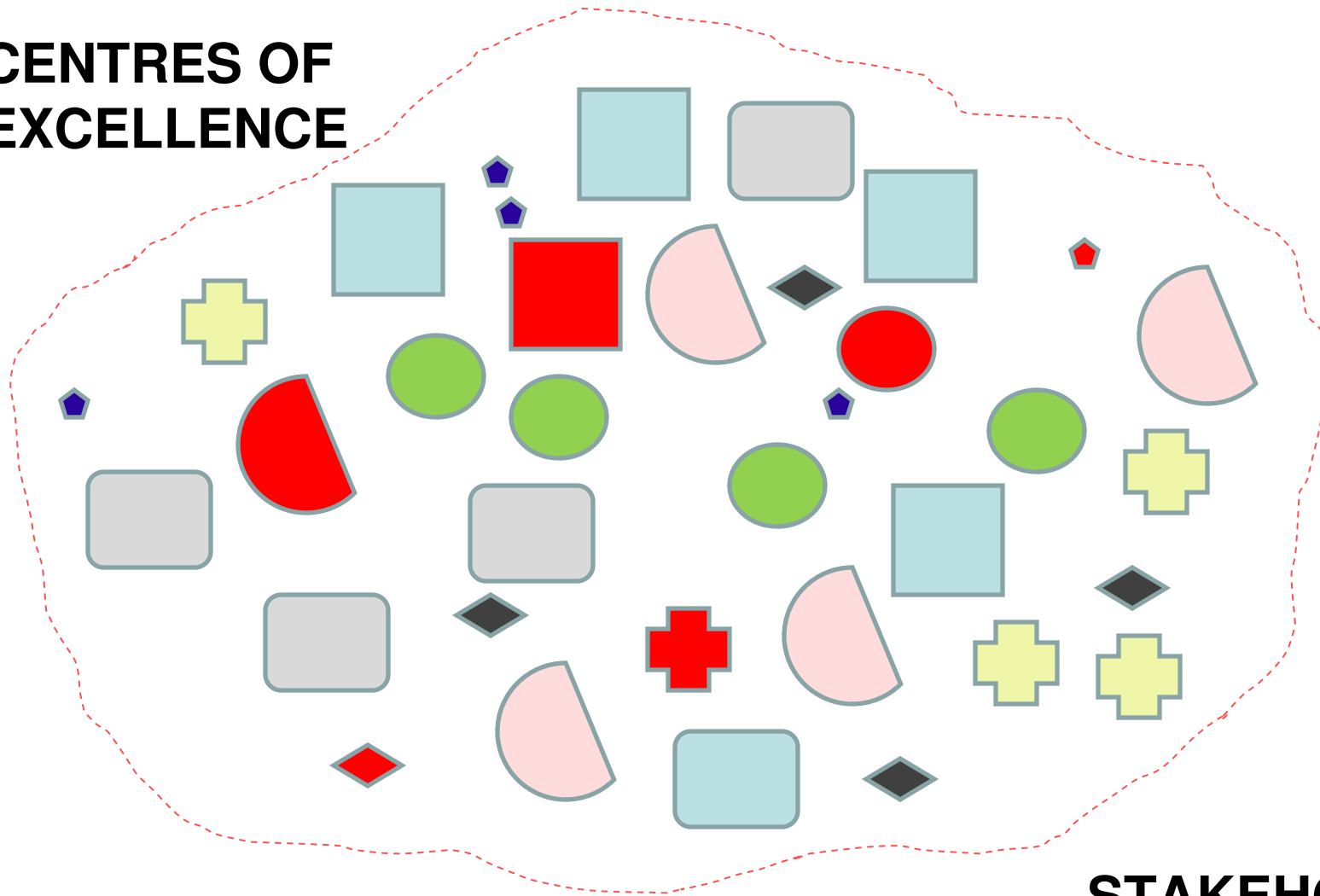


# TYOLOGY

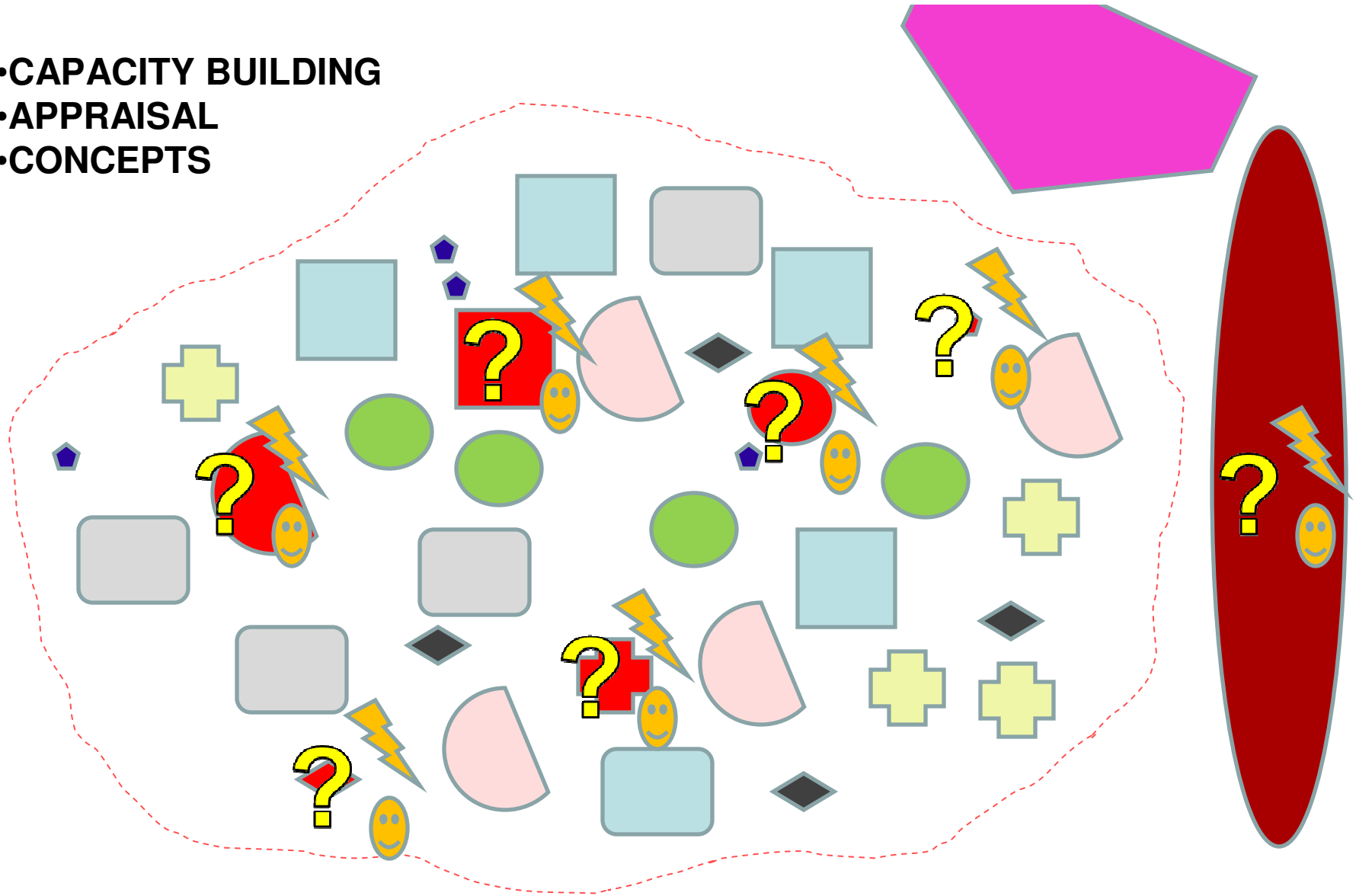


# CENTRES OF EXCELLENCE



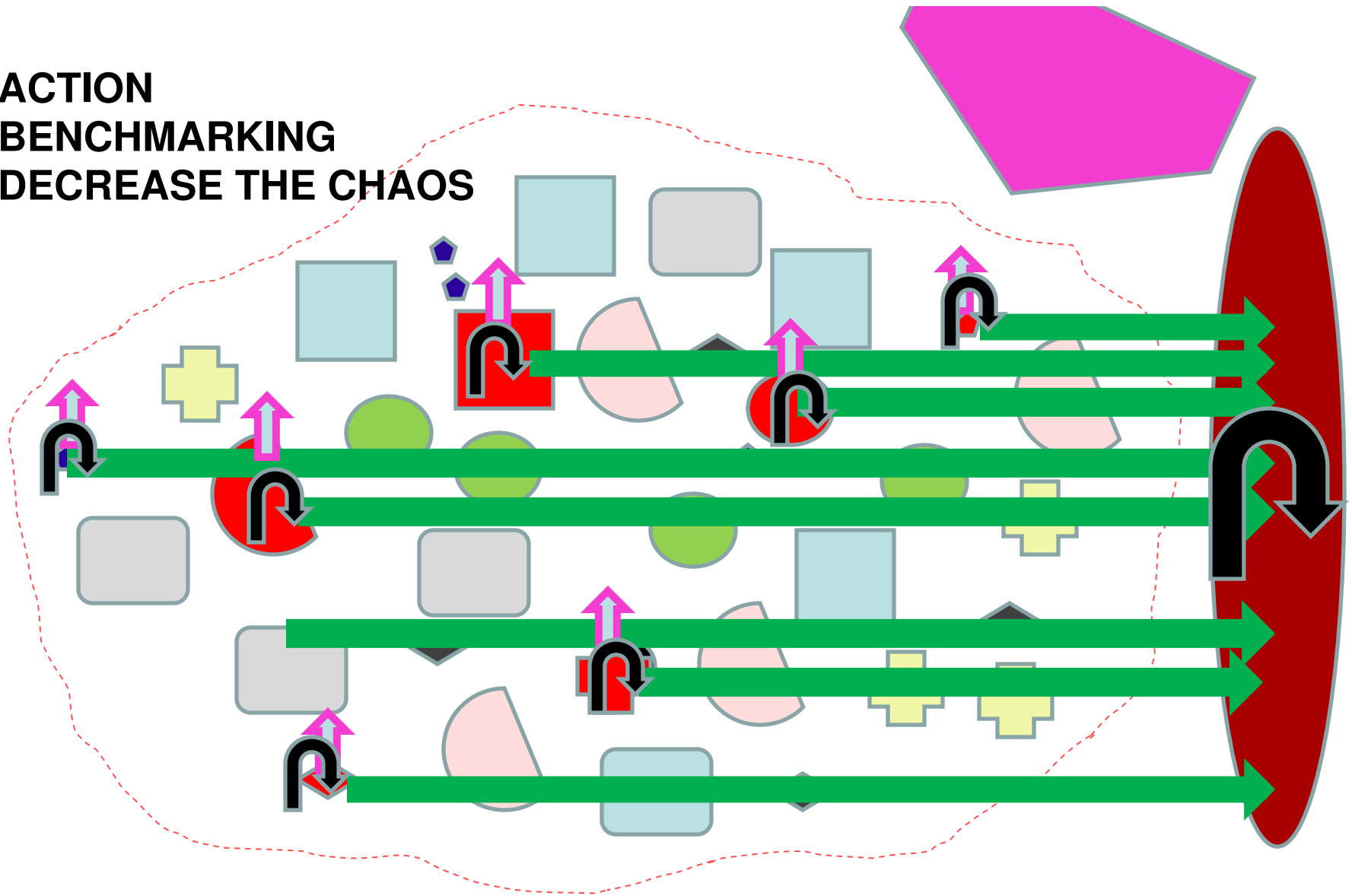
**STAKEHOLDERS**

- CAPACITY BUILDING
- APPRAISAL
- CONCEPTS



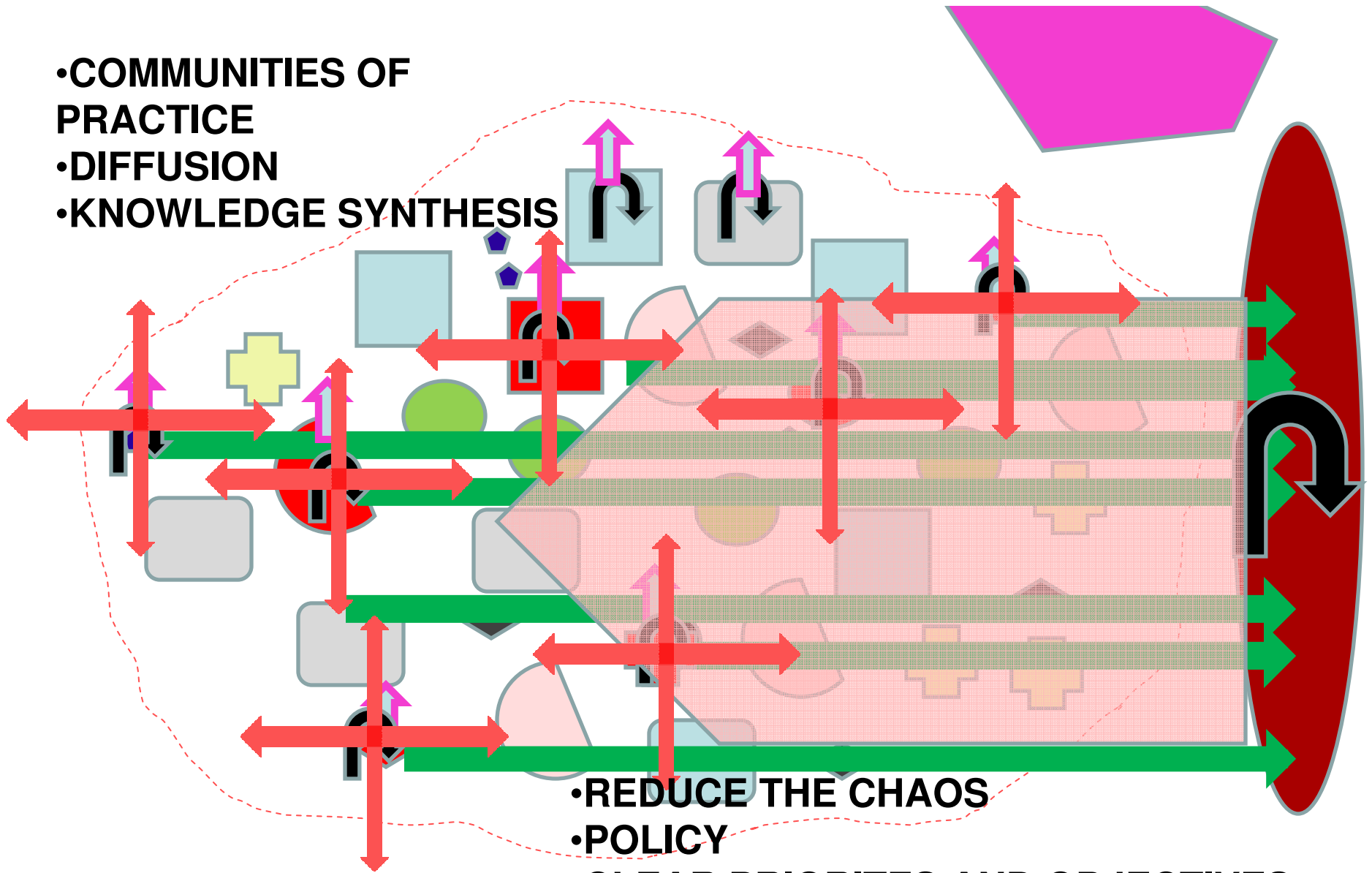
- PRACTICAL TOOLS
- VISIONING AND STRATEGIC PLANNING
- PRACTICAL PLANS

- ACTION
- BENCHMARKING
- DECREASE THE CHAOS

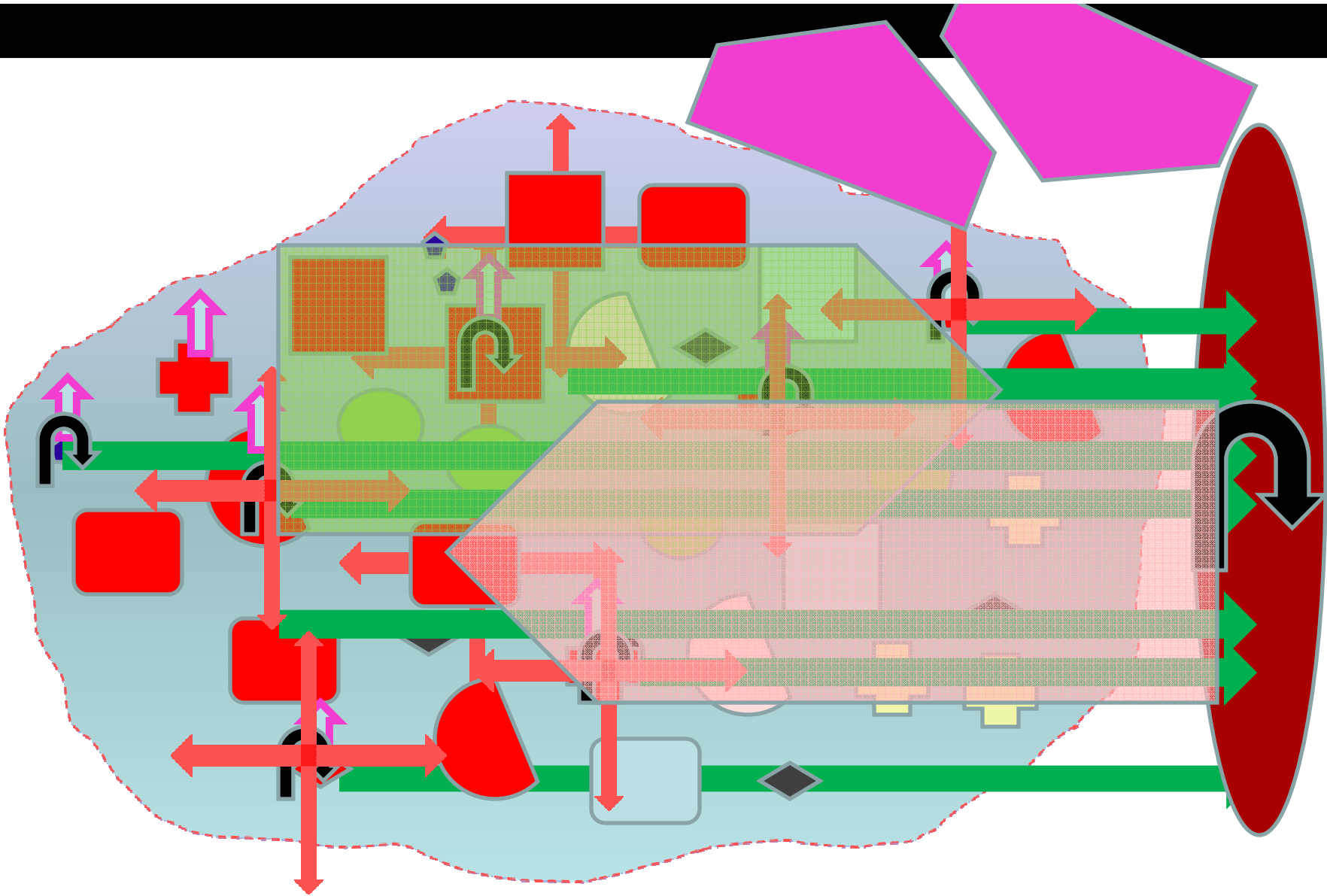


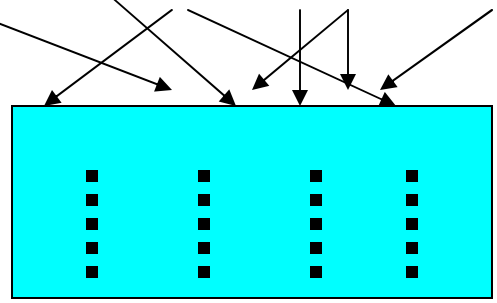
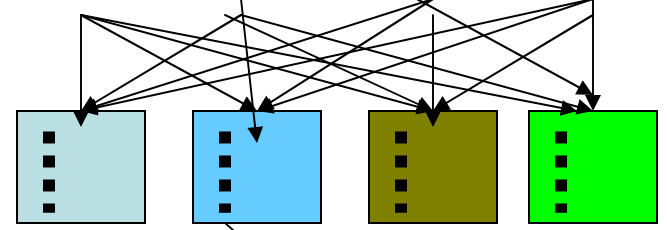
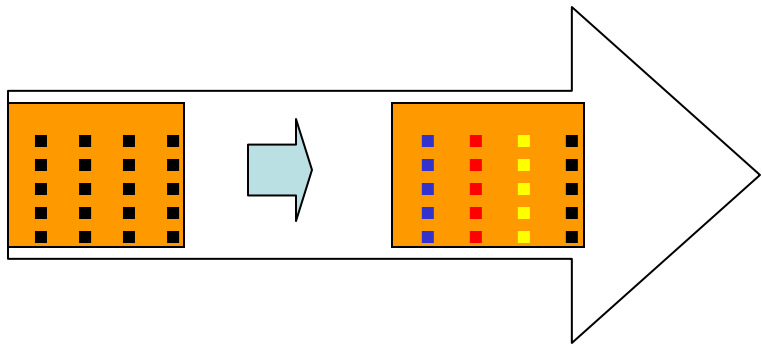
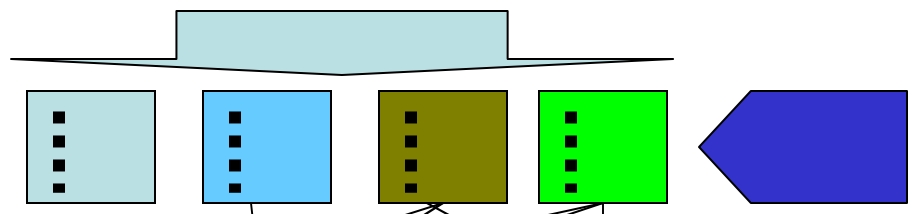
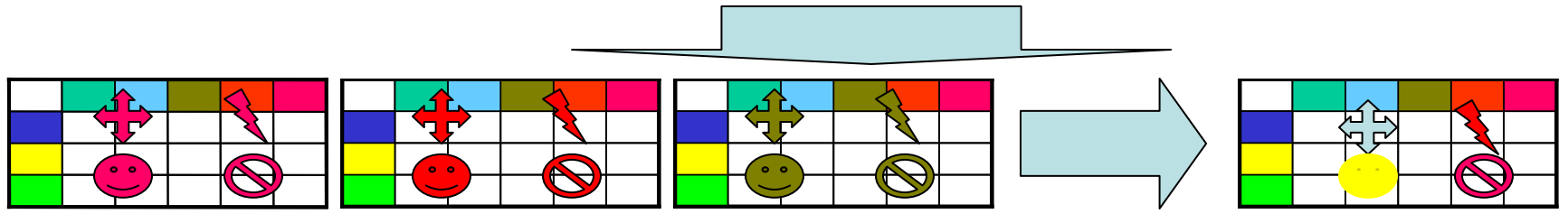
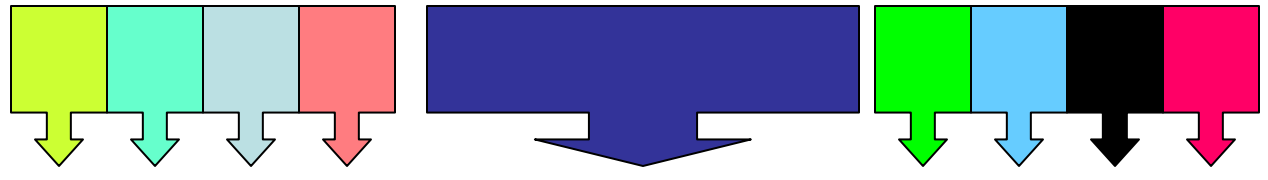
- FROM FIELD TO POLICY OPTIONS
- MONITORING OF INVESTMENTS AND RESULTS

- COMMUNITIES OF PRACTICE
- DIFFUSION
- KNOWLEDGE SYNTHESIS






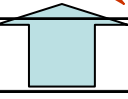
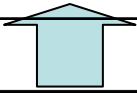


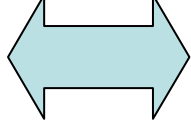

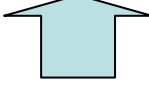
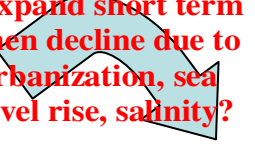

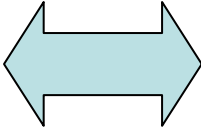
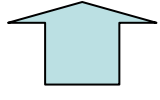
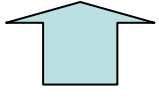
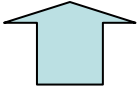
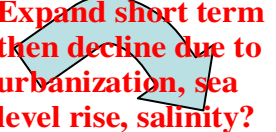
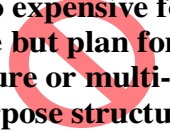


- REDUCE THE CHAOS
- POLICY
- CLEAR PRIORITES AND OBJECTIVES
- CAPACITY BUILDING
- DIVERSIFIED STRATEGIES
- STRATEGIC BALANCE







National and Sub-national stage	Type 1: Reservoir gravity	Type 2: Off-river gravity	Type 3: Off-river pump 	Type 4: Conjunctive 	Type 5: Integrated management deltas 
Post-agriculture	0 	- 	+ 	+ 	- 
	Optimizing multiple use economically justified; limited number of sites available for new systems	Reduce. Merge or neglect due to low reliability Convert to type 3 or 4 Convert to different crops/land use	Increasing energy costs Crop diversification Rice phases out economically justified; limited number of sites available for new systems	Highly flexible Farmers decide Market rules (export possibilities) (many farmers use pumps)	urbanization Optimizing multiple use (environment, drainage issues, per-urban agriculture, urbanization) ; more crop diversification
Agricultural Export	not economically justified by agriculture alone but may expand; 	0 	0/- 	+ 	Expand short term then decline due to urbanization, sea level rise, salinity? 
	Anticipate on multiple uses 	Improve, modernize (endless) Inherent limitations of supply	Likely reduction due to energy costs (for paddy)	Highly flexible Farmers decide Market rules (export possibilities) (several farmers use pumps)	Optimize multiple use Expensive drainage (environment, drainage issues, per-urban agriculture, urbanization)
Agriculture focus	0 	+ 	+ 	+ 	Expand short term then decline due to urbanization, sea level rise, salinity? 
	Too expensive for rice but plan for future or multi-purpose structure 	low costs Comparative advantage (compared with other options)	Affordable investment Subsidized O&M	Highly flexible Farmers decide Market rules (export possibilities) (some rich farmers use pumps)	Developing paddy systems Not yet urbanization

# SUCCESS (?)

- Malaysia
- China
- Karnataka
- Royal Irrigation Department, Thailand

## • Vietnam

What helped:

- No money
- No power of coercion
- Things that help people
- Focus on people who want to move, don't waste time on others

- Validation
- New concepts
- New tools
- Evidence-based

- From contrarian to consensus

- ASEAN

- Regional policy

- WFP down

- From AP through Rome to other regions

- Istanbul WWF5

- ICID

# **Re-inventing irrigation and agricultural water governance in the Asia Pacific to meet the Millennium Development Goals**

A regional programme to support action at all levels through knowledge sharing, capacity building and implementation

## 5 inter-related components

- 1. Development of communities of practice** for policy makers, implementing agencies, water resources and irrigation system managers, water user and farmer organizations
- 2. A knowledge hub for a knowledge network** on irrigation and groundwater governance
- 3. Supporting action in representative basins and their groundwater systems:** support to **7 basin centres** of excellence/reference, to functional centres of excellence /reference within these basins
- 4. Development and adoption of regional guidelines for monitoring investment and results** including a harmonized regional irrigation benchmarking system
- 5. Mobilization of the professional community in the**



## Water Knowledge Hub on Irrigation Service Reform

### Re-Inventing Irrigation and Agricultural Water Governance in Asia

**NEWS:** [IWMI and FAO launch Knowledge Hub for Irrigation Service Reform...](#) [\[click to read more\]](#)

[Community of Practice for Irrigation Service Reform in the Asia Pacific Region...](#) [\[click to read more\]](#)

Over 60 percent of the world's irrigated area is in Asia, and approximately two thirds is devoted to cereal grain production, rice and to a lesser extent, wheat. This irrigated area has expanded rapidly over the past 50 years, through the construction of canals and storage dams and the exploitation of groundwater. The rapid growth of irrigated agriculture fostered growth and changed the economies of Asia.

- [Bling](#)
- [News](#)
- [Outputs](#)
- [Photo Gallery](#)
- [Calendar of Events](#)
- [Knowledge Hub Websites](#)
- [IWMI & FAO Publications](#)
- [IWMI Project / Product Websites](#)
- [Partner Project/Product websites](#)



Today, many Asian countries are facing physical water scarcity and as their economies develop and grow, emerging issues include water availability, competition between different users and the human and environmental health hazards which arise from urbanization and development activities.

Over the past few months, the world has also been hit by both food and energy crises. As a consequence, prices for many staple foods have risen by up to 100%. The causes of water scarcity are essentially identical to those of the food crisis. There are serious factors that indicate water supplies are close to exhaustion in some countries.

Food security largely depends on irrigation and good water governance. Potential solutions to the current crisis include more water storage, improved management of irrigation systems and increasing water productivity (e.g., more kg of crop per 1,000 liters of water) in irrigated and rainfed farming systems. All of these will require investment in knowledge, infrastructure and human capacity. Therefore, human development and environmental security in the region cannot be achieved if the irrigation sector does not adopt forward-looking strategies. To achieve this, the irrigation sector and its actors need to adopt effective policies, strategies and practices to improve performance, and instruments to monitor and evaluate the results of change.

IWMI and FAO are working together on a regional program to re-invent irrigation and agricultural water governance in the Asia Pacific region. The knowledge generated through this partnership will be shared with the [water knowledge hub network](#). This initiative builds on the [FAO regional Irrigation Modernization Program](#) and the IWMI-led knowledge synthesis and global research initiatives such as the [Comprehensive Assessment of Water Management in Agriculture](#), as well as the [CGIAR Challenge Program on Water and Food](#), and the [groundwater governance program](#).

# www.waterknowledgehub.iwmi.org

The water knowledge hub on Irrigation Service Reform led by IWMI and FAO would support action at local levels through knowledge sharing, capacity building and project implementation with a view to furthering the achievement of the [Millennium Development Goals \(MDGs\)](#)



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