

## INTRODUCTION

Human resource planning is recognized as one of the crucial issues for the actual implementation of nuclear power in the emerging nuclear energy countries. Many of these countries are in the Southeast Asian region. Nevertheless among them, there exist various degrees of readiness in terms of technical knowledge and expertise. This paper takes a closer look at the nuclear educational and training program in Southeast Asia, and how university can interact with other education and training organizations to help the emerging nuclear energy countries cope with the challenges in implementing the nuclear program.

### STATUS OF THE NUCLEAR POWER PROGRAM IN THE SOUTHEAST ASIAN COUNTRIES

Status	Country
Active program	Vietnam
Semi-active program	Indonesia, Malaysia, Thailand
Inactive program	Philippines
Without program	Brunei, Cambodia, Lao PDR, Myanmar, Singapore

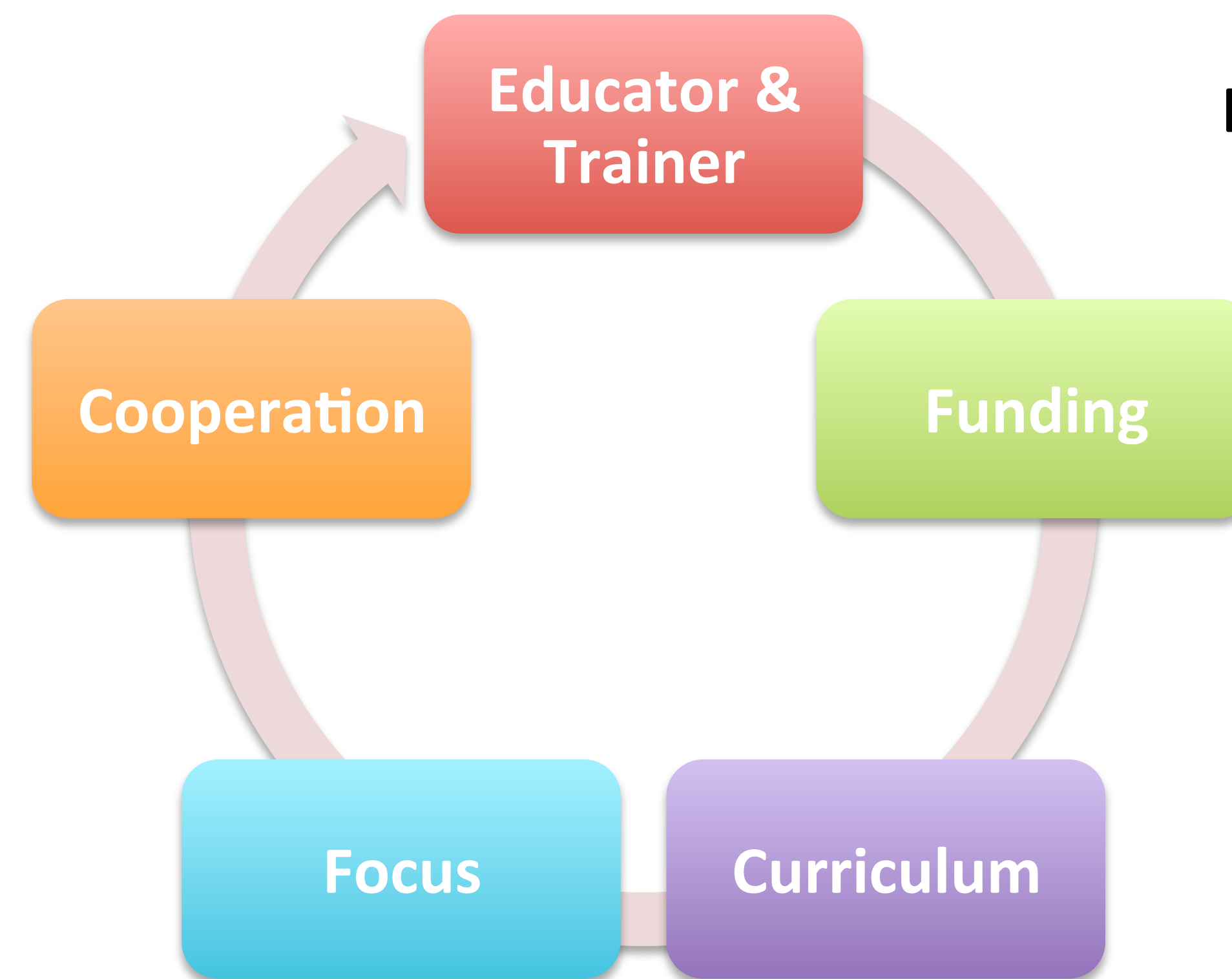
Nuclear education and training therefore must exist in variety of forms to provide the right nuclear competency for different workers. Knowledge of all three fundamental elements for safe and peaceful utilization of nuclear technology (safety, security, and safeguards) are required to be present. And even without a nuclear power program, nuclear education and training are still very important as more and more nuclear knowledge and technology are being utilized in many aspects of modern living.

### EDUCATION AND TRAINING PROGRAMS THAT A UNIVERSITY CAN PROVIDE

Type of E&T	Length	Characteristics
Formal university degree program (undergraduate)	4 years	Provide fundamental and comprehensive nuclear knowledge, as well as basic skills for university student
Formal university degree program (graduate)	2+ years	Provide specific nuclear knowledge and the research skill (depending on the research topic selected) for university student
Diploma program	1 year	Provide fundamental nuclear knowledge for non-nuclear worker
Nuclear introductory course	40 hours	Provide general nuclear knowledge for non-nuclear student
Certificate program	80 hours or varies	Provide nuclear knowledge on selected topics for non-nuclear worker
Outreach program	Varies	Provide basic nuclear knowledge to the community based upon the issues concerning the community

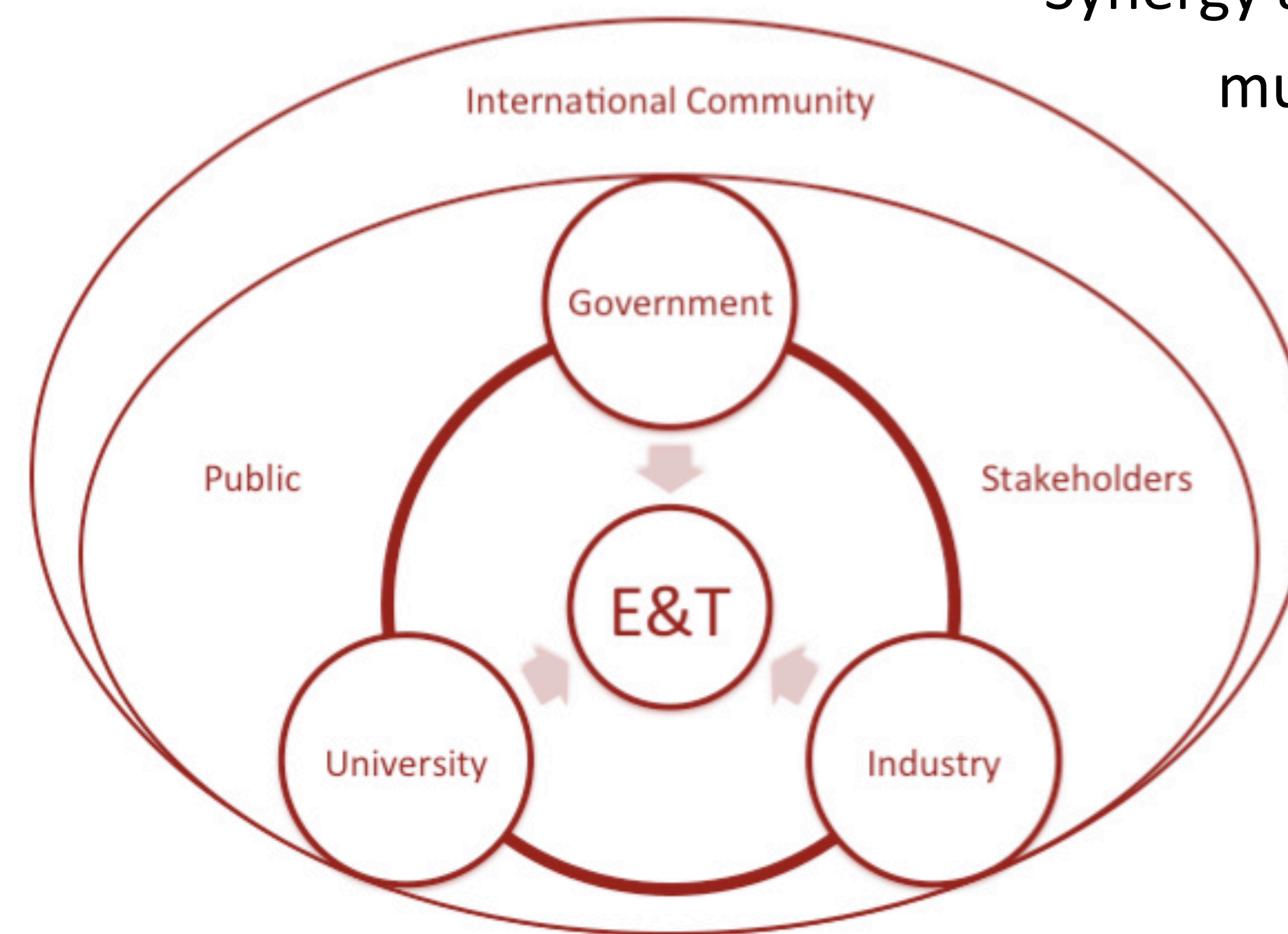
## E&T CHALLENGES

Emerging nuclear energy countries may face several challenges regarding the nuclear education and training.

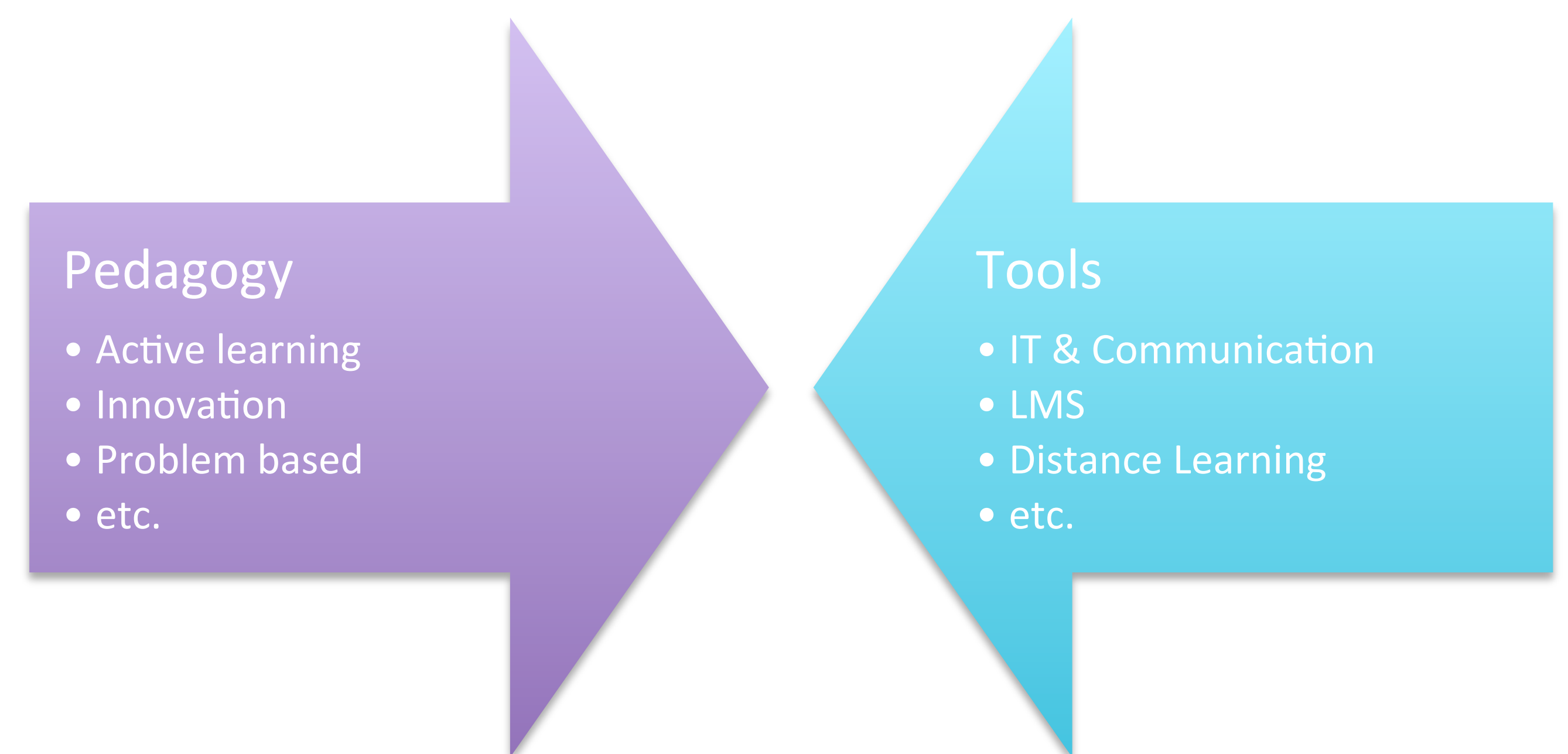


## Synergy Model

Synergy among various entities must be created in order to effectively use the limited resources for education and Training available in a country.



## Modern Learning



## Nuclear Education Network

Various nuclear education networks have been established around the world to assist their members

