

# **International Nuclear Management Programmes**

**-- *INMP*--**  
(VNMU)

**Ms Fumio Adachi**  
**Nuclear Knowledge Management Section**



# Nuclear Knowledge Management Section

- **Facilitating sustainable formal education in nuclear science and technology is one of two approved key our section's mandates.**
- **Our section has been closely working with many universities by signing 'practical arrangement' with ones in Italy, Japan, Russia, UAE, US, and number of PAs are in negotiation.**
- **Development of nuclear engineering curriculum with universities and experts are now published.**



# International Nuclear Management Programmes (INMP)

## <Purpose and background of INMP>

- INMP is an IAEA-facilitated collaboration for universities to provide master's degree programs in nuclear management, targeting managers or future managers working in the nuclear sector.
- There are currently no full master's degree programmes specializing in management for the nuclear sector.
- Managers at NPP are typically engineers with few chances of formal management education.
- In newcomer countries to nuclear energy, working towards the introduction of nuclear power, often lack technical or managerial experience in nuclear energy.



## <Universities' roles>

- To develop and provide programmes
- Considering the number of potential students and the wide range of teaching topics, multiple universities have to cooperate to provide a programme.

## <IAEA's roles>

- To facilitate collaboration among universities
- To provide common programme requirements or teaching topics of INMP programmes
- To provide a peer review mechanism to keep the quality of INMP programmes
- To support to find sponsors for students from nuclear new comer countries



## **<Examples of teaching topics>**

- Energy policy and energy planning**
- Economics and finance**
- Human resource management**
- Project management**
- Risk management**
- 3S (Safety, Security, Safeguard)**
- Nuclear safety culture, Nuclear ethics, Corporate governance etc.**

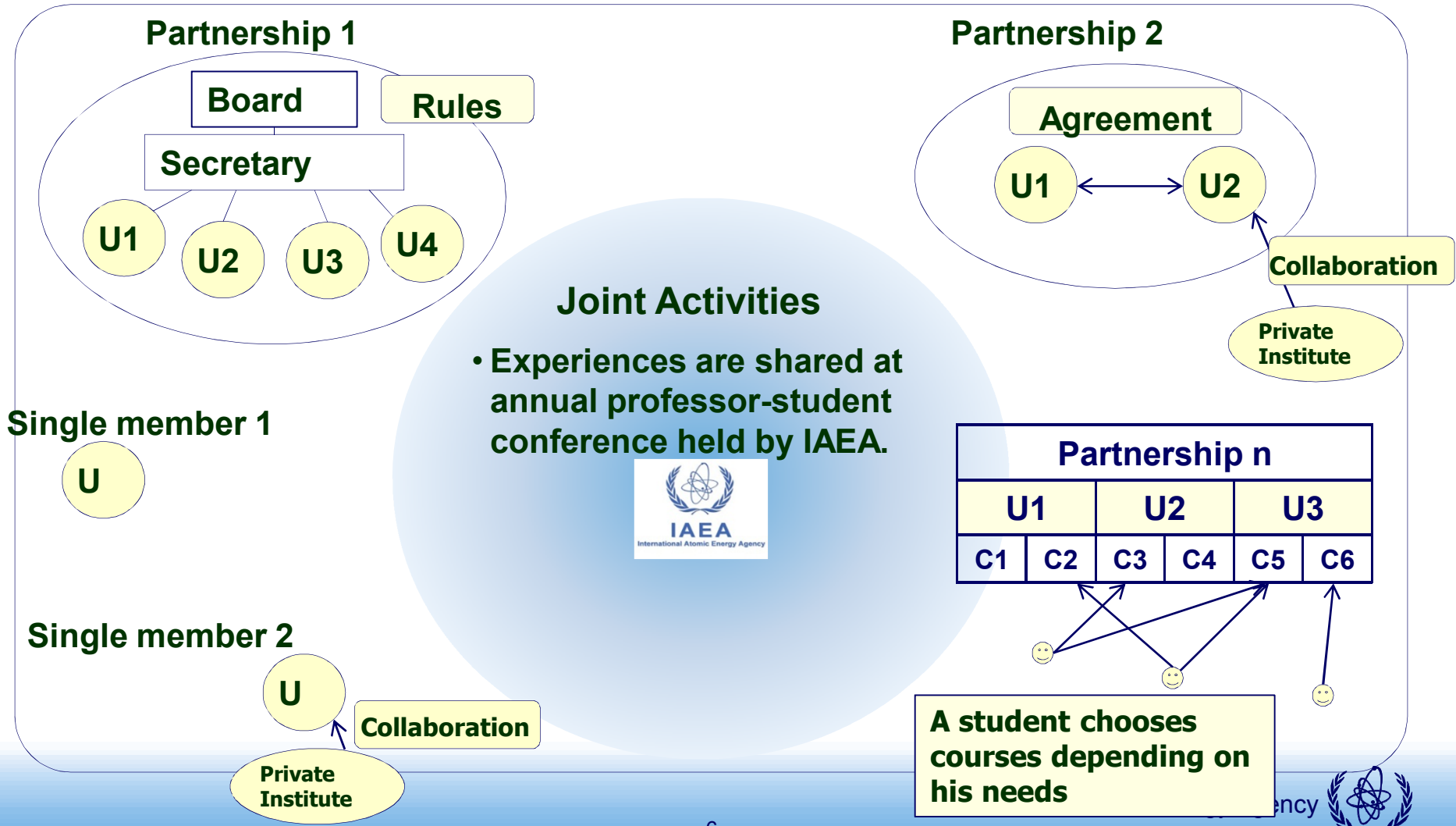
## **<The stakeholders' needs>**

- Around 40 interviews were conducted last March to grasp the nuclear industry's needs for INMP programmes and their expectation on the competencies managers are expected to acquire. Their expectation for INMP is very high.**



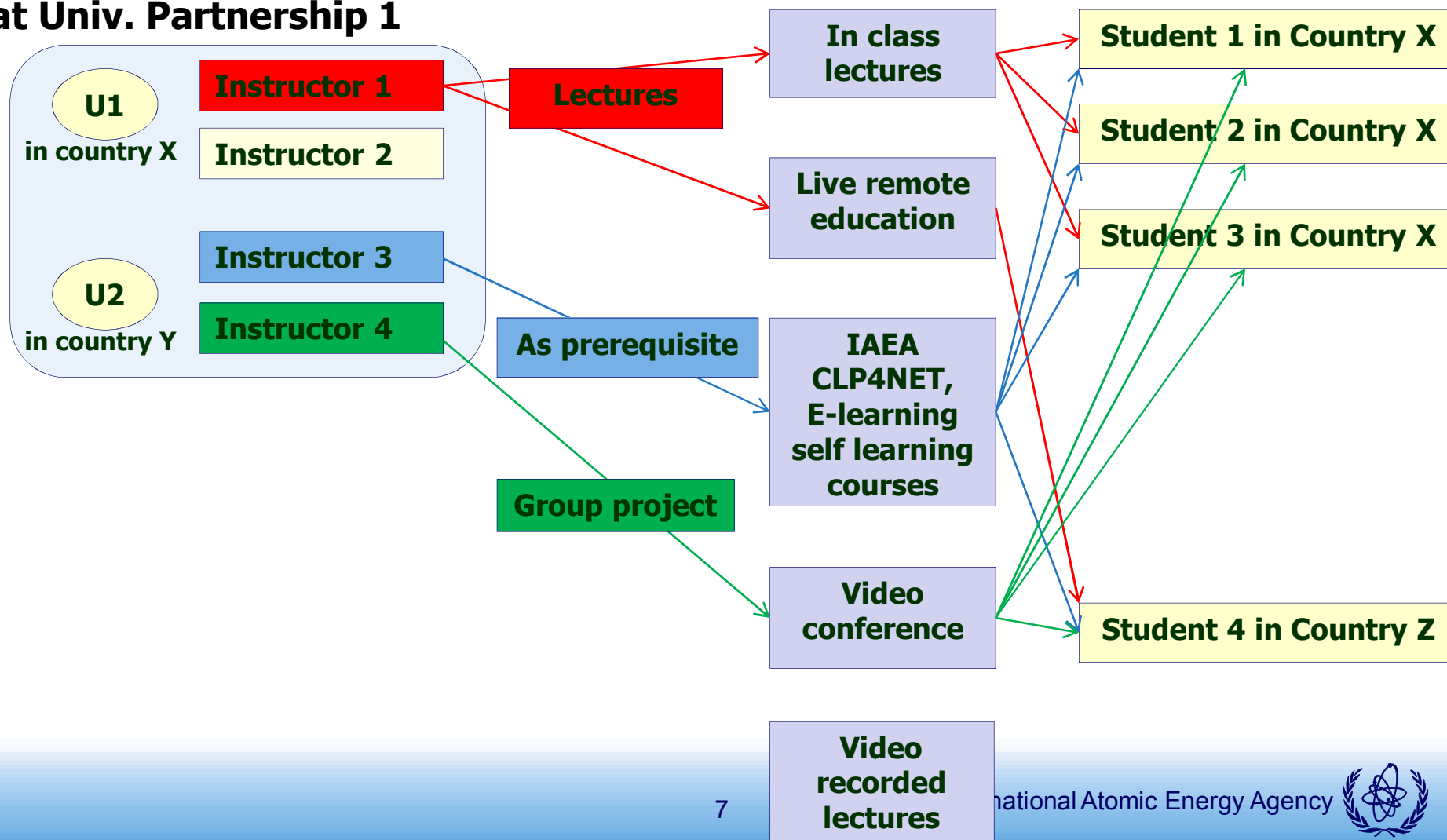
# Cooperation among Universities in Implementation

- How to implement and operate the master program is up to universities
- IAEA benchmarks their curriculum through peer review.



# Tools to increase the accessibility for busy managers and students globally dispersed including those from developing regions

## A VNMU program at Univ. Partnership 1



# Common programme requirement

- IAEA will show requirement for universities to meet in order to build full-scale master's degree nuclear management programmes which they can call INMP.

Knowledge areas	Teaching points	Competencies	Programme themes		
			New build and refurbishment	Decommissioning and env. remediation	....
Law and regulations	Nuclear law	To understand knowledge about international treaties about non-proliferation, safeguard regime .....	Elective competency	Elective	Elective or Core competency
	IP management	.....	Elective	Elective	
	Licensing process	.....	Core competency	Elective	
International environment	Energy policy	.....	Elective	Elective	
	International institutes	.....	Core	Elective	





## <Targeted schedule>

- First programmes starting in 2015.

## <Consultancy meetings>

- November 2013
- April 2014
- November 2014
- Spring 2015

## <Learning visits to 8 universities>

- To assess the existing management courses
- Then, to develop the common programme requirements

### 2014

- University of Tokyo, Japan
- Manchester University, UK
- Texas A&M University, USA
- MEPhI, Russia

### 2015

- Tsinghua University, China
- North-West University, South Africa
- Wits University, South Africa
- Aachen University, Germany

