

CAPACITY BUILDING IN NUCLEAR SECURITY

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Center for Education and Training
National Nuclear Energy Agency (BATAN)

**Open Seminar on Nuclear Security
Capacity Building**

Yogyakarta, October 4, 2016



Introduction

National Policy on Nuclear HRD

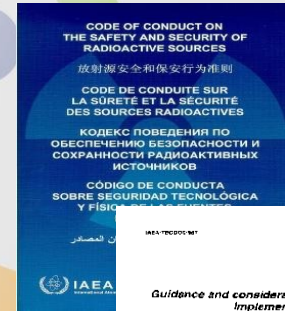
Research, development and application of nuclear science and technology are implemented for human well-being

Every personnel who works in nuclear research, development, and application should be provided adequate training in a certain level of competence.

Introduction

Regulatory Framework on Nuclear Security

- Government Regulation No. 33 / 2007, on ionizing radiation safety and security of radioactive sources
- Government Regulation No. 54 / 2012 on the Safety and Security of Nuclear Installations
- BAPETEN Chairman Regulation No. 7 / 2007, on Security of Radioactive Source
- BAPETEN Chairman Regulation No. 1 / 2009, on Physical Protection of Nuclear Materials and Facilities
- BAPETEN Chairman Regulation No. 1 / 2010, on Emergency Preparedness and Response
- Nuclear Security Act, Draft

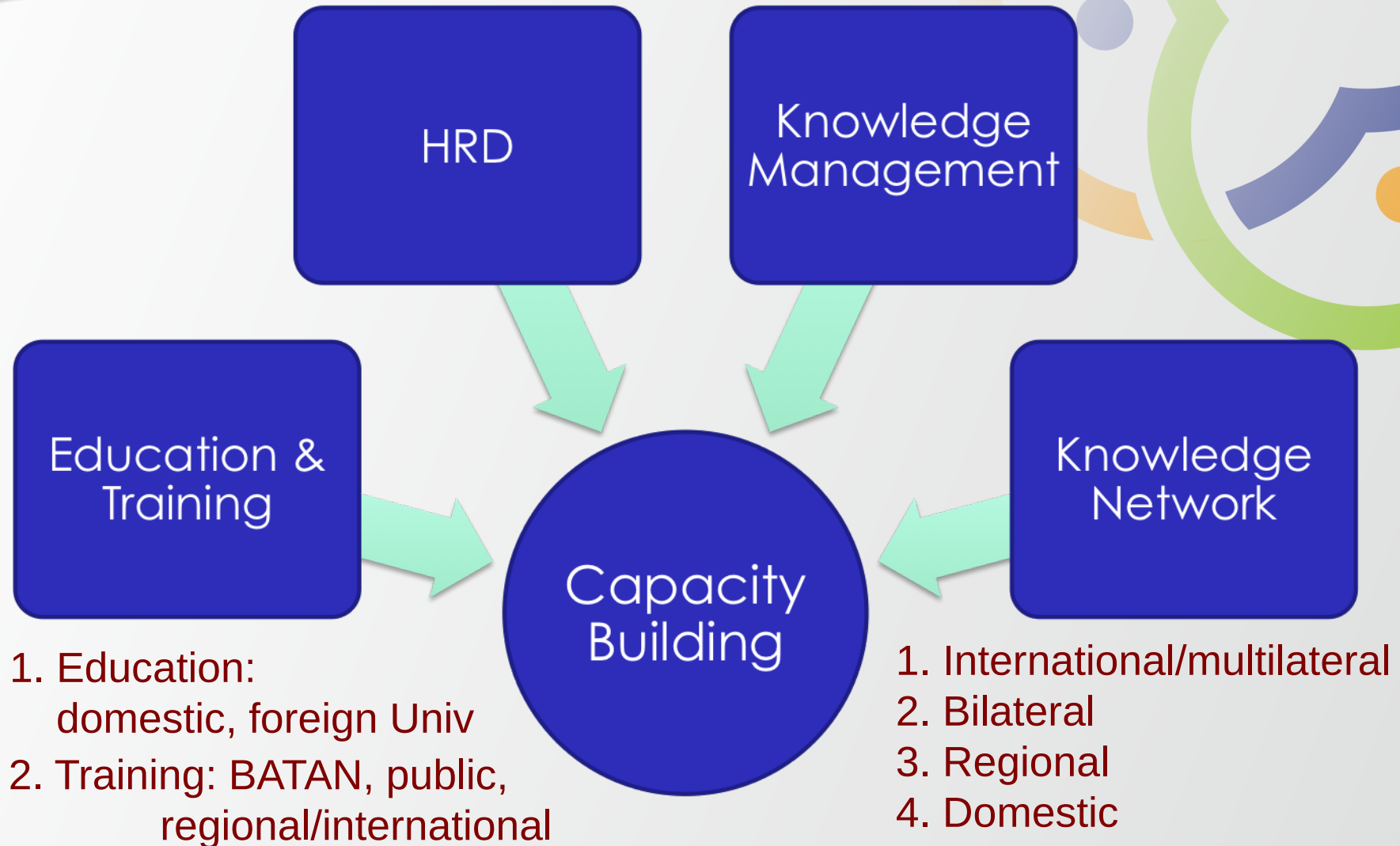


Guidance and considerations for
Implementation of
INFCIRC/225/Rev.3,
The Physical Protection of
Nuclear Material

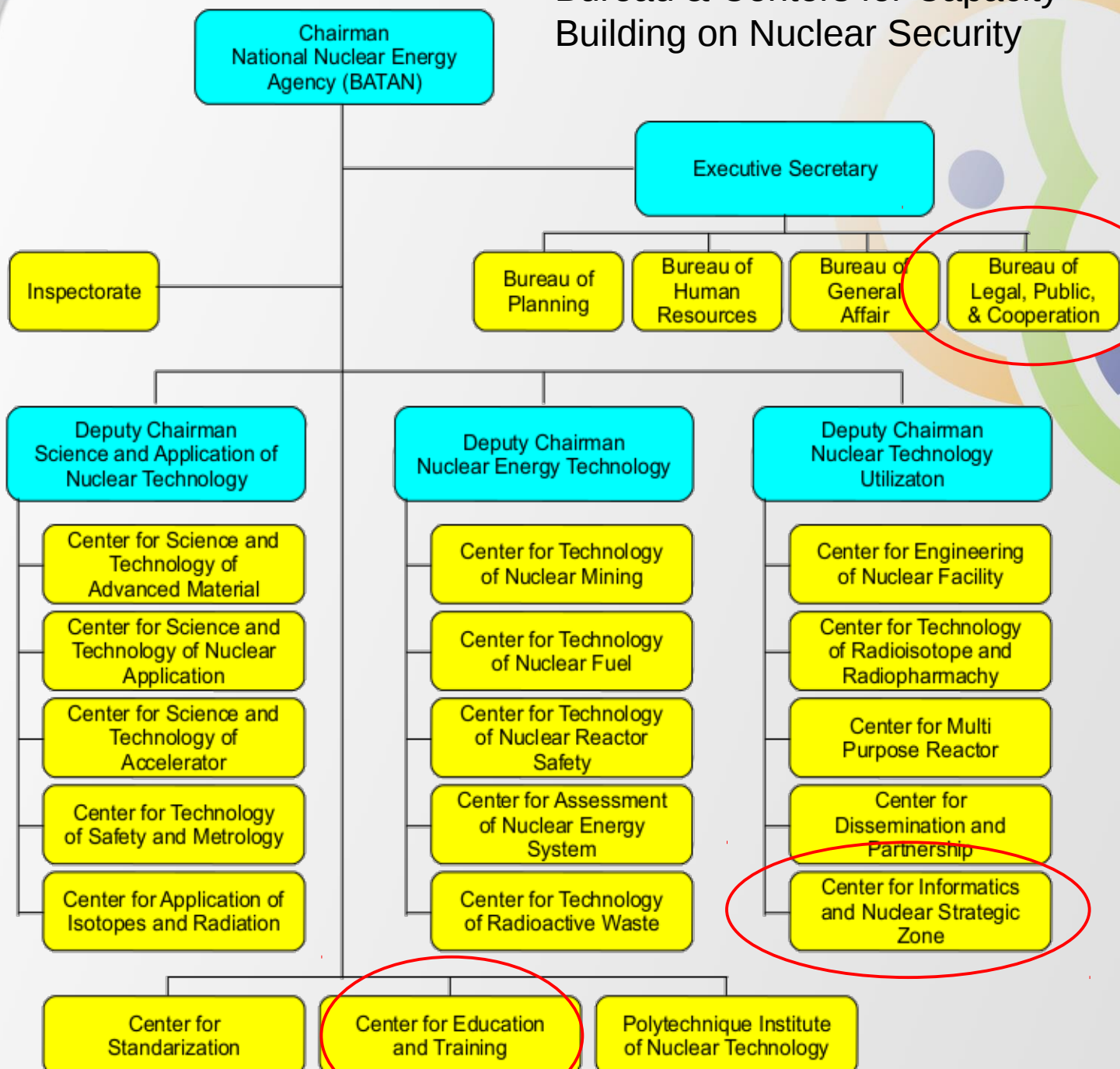


Introduction

IAEA Model for
capacity building



Bureau & Centers for Capacity Building on Nuclear Security





NSSC in BATAN

BATAN: Nuclear Security Activities

1. Establishing Division of Nuclear Security and Physical Protection
2. Establishing Center for Security Culture and Assessment (CSCA)
3. Holding training on nuclear security
4. Participating party in I-Consep

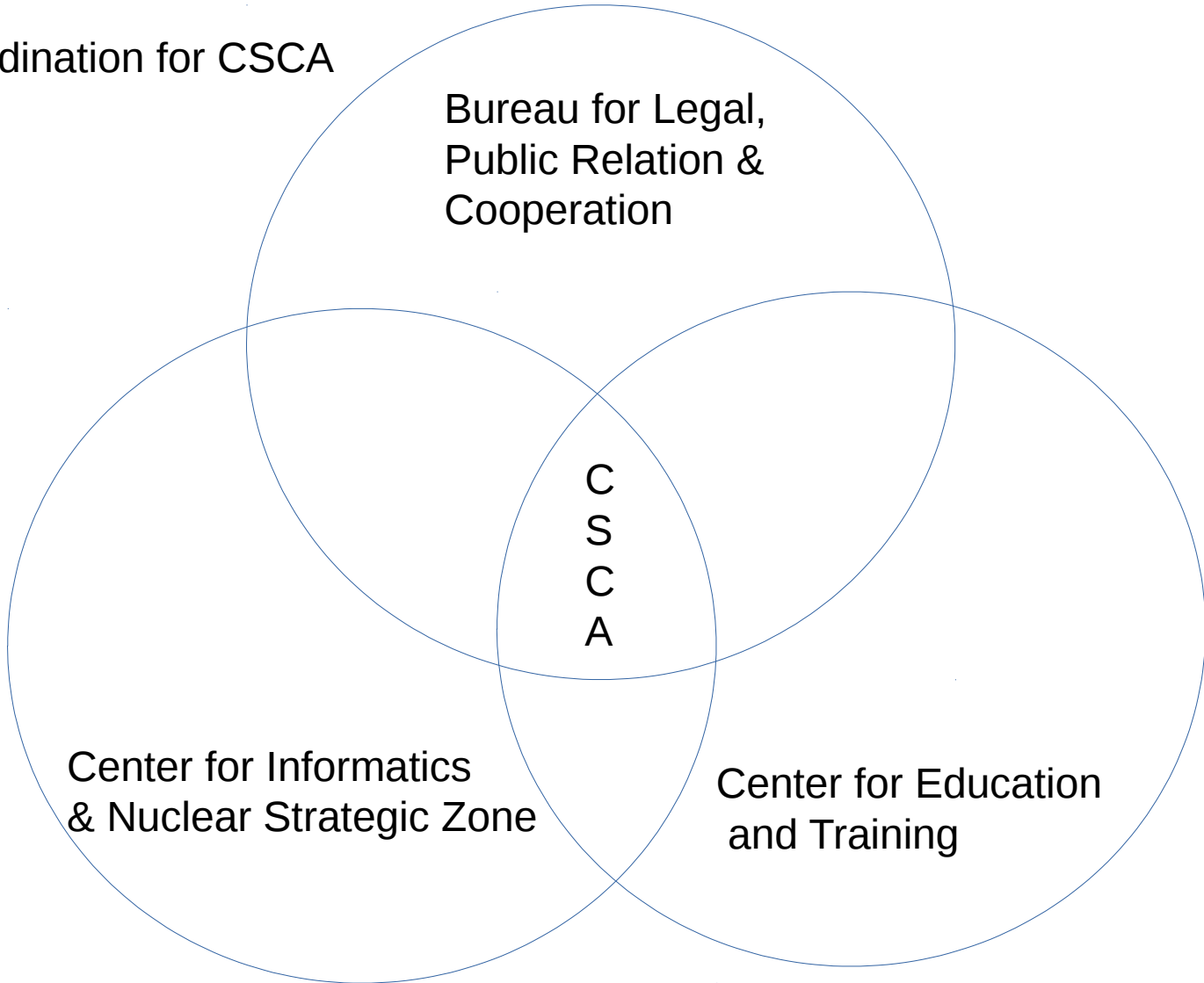
Coordination for CSCA

Bureau for Legal,
Public Relation &
Cooperation

C
S
C
A

Center for Informatics
& Nuclear Strategic Zone

Center for Education
and Training



BATAN: Nuclear Security Activities

Center for Security Culture and Assessment

Technical support from UGA and plan of Inauguration at
September 2014

Function:

1. Conduct dissemination of security culture and its assessment method;
2. Review and comment on the results of the self-assessment and provide recommendations;
3. Assist the management to develop follow-up action plans and implementation of good security culture;
4. Cooperate with BATAN Safety Culture team;
5.

BATAN: Nuclear Security Activities

Center for Security Culture and Assessment

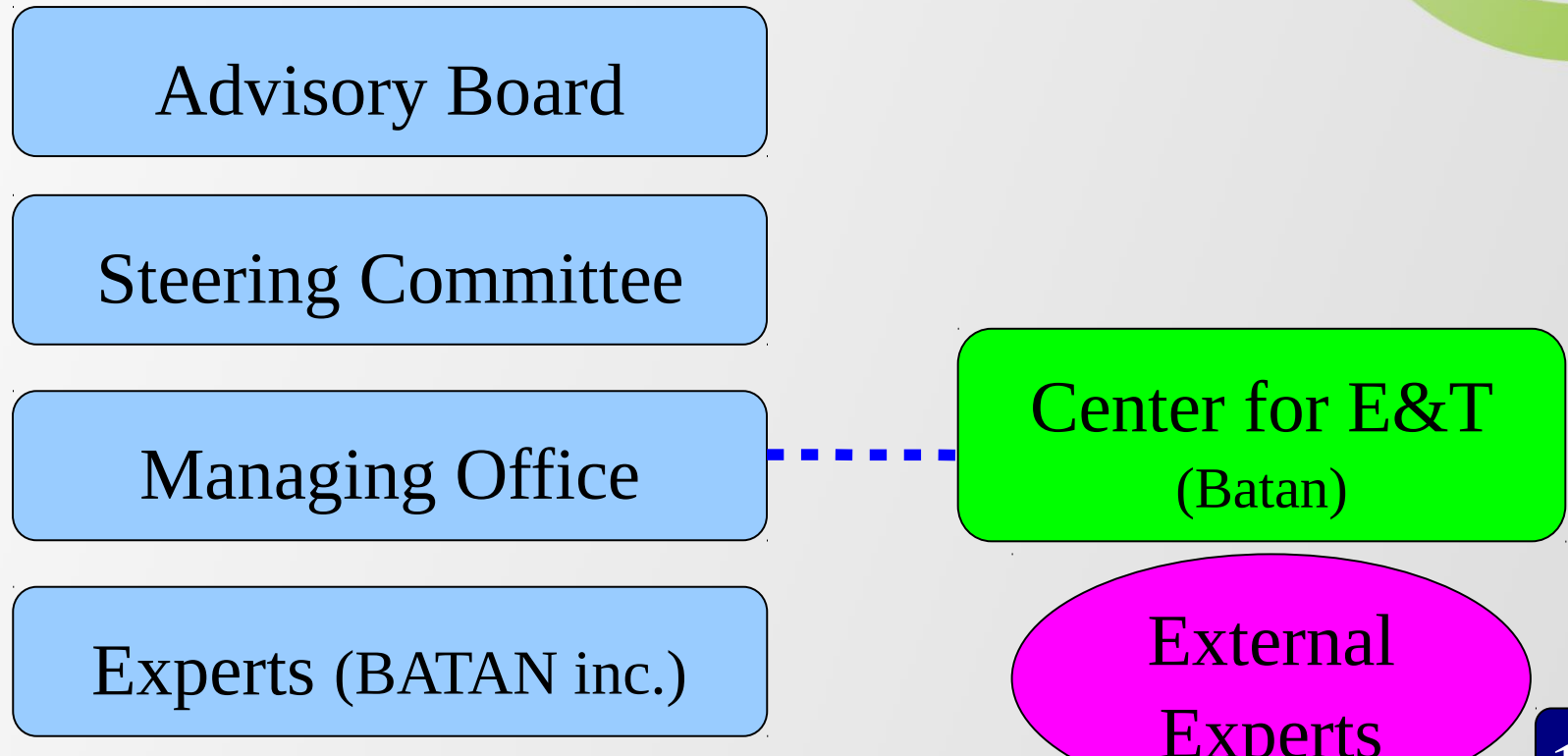
Function:

5. Provide nuclear security awareness training and assessment;
6. Assessing security culture characteristics and indicators as well as its assessment methods;
7. Build networking and collaboration with organizations at the national, district / regional and international level;
8. Conduct an assessment of the security through performance testing and vulnerability analysis.

BATAN: Nuclear Security Activities

Center for Security Culture and Assessment

- Structure of CSCA



Training in Nuclear Security

Training Scheme

To create
Experts
& Trainer

Advance
Training Courses

external
support

Indonesian
experts

To fullfill
technical
competence

Intermediate
Training Courses

Intermediate
Training Courses

To fullfill
regulation
requirements

Basic
Training Courses

Basic
Training Courses

Basic
Training Courses

Security Personnel;
Head laboratory:

Technical personnel;
Researcher:

Top manager;
Administrative

Nuclear Security Training Scheme

Advance

1. ITC on PPS Design and Evaluation ; 2. ITC on PPS for Inspection
3. Vulnerability Analysis of PPS ; 4. ToT for Self-Assessment Team on Security Culture; 5. ToT on PPSM ; 6.ToT on Vulnerability Assessment

**Interme-
diate**

1. PPSM for Medic Fac, 2. PPSM for RR
3. Protection and Prevention Measures against Sabotage
4. PP Measures against Insider Threat
5. Contingency Plan
6. Gap Analysis on INFCIRC/225 Rev 5
7. PPS Performance Testing
8. Inspection of PPS
9. Evaluation of PPS

- 10 NMAC (Safeguards) For Supervisor
11. Computer Security
12. Intelegant Security
13. Nuclear Crime Scheme
14. Security Investigation
15. Nuclear Forensic
16. NS in Transport of NM and RS
17. Nuclear Security MS
18. PPS equipment

Basic

1. PPSM of NM and facility; 2. PPSM of Radioactive Sources;
3. School on Nuclear Security 4. INFCIRC/225 Rev 5
5. Nuclear Material Accountancy and Control (Safeguard)

Introductory

1. Introduction to Nuclear Security; 2. Nuclear Security Culture

Nuclear Security Training 2009-2012

Organized by CET-BATAN

1	Physical Protection and Security Management of Radioactive Sources	3-5 November 2009	25
2.	Physical Protection for Nuclear Material and Facilities	22-26 March 2010	20
3.	Physical Protection and Nuclear Security Management for Operators	25-28 April 2011	22
4.	Physical Protection and Nuclear Security Management for Officers	13-17 June 2011	25
		26-30 March 2012	24

Nuclear Security Training 2012-2014

5	Vulnerability Analysis	25-29 June 12	25
6	PPSM for Medical Facilities (Level A)	16-20 Sept.13	18
7	Workshop on Insider Threat and Human Reliability Program,	18-22 Nov. 13	25
8	Regional School on Nuclear Security	13 – 27 October 2014	30
9	RTC on PPSM for RR	Sept 14	25
10	INFCIRC Rev.5	9-10 Sep 14	26
11	Gap Analysis on INFCIRC Rev 5	11-12 Sept 14	16
12	Contingency Plan	Nov. 14	25
13	Human Reability Program	1-3 Oct 14	22

Nuclear Security Training 2015

			Participants
4.	Performance Testing 1	6-12 April 15	23
5.	Nuclear Security Management System	23-27 Feb 15	30
6	Perpormance Testing 2	28 – 29 July 2015	15
7	Perpormance Testing 3	1-2 Sept 2015	23
8	TOT for Self Assessment Team of Security Culture	27-30 April 15	25
9	Nuclear material Accountanty and Safeguard	9 March- 21 May 2015	12
10	HRP Implementation In Indonesia,	20 – 21 Oct, 2015	31

Nuclear Security Training 2016

Participants

1	Nuclear security culture, NSSC Indonesia in cooperation with ISCN	23-27 May 2016	25
2.	Regional School on Nuclear Security, NSSC Indonesia in Cooperation with IAEA	17-28 Oct 2016	40
3	Implementation of PPS on Nuclear Installation and Facility,	8-12 August 2016	25
4	TC on HRP Roadmap for RR August in Cooperation with PNS	May 2016	25
5	Performance Testing of Response Personnel in Cooperation with USDoE	April 2016	31

Other Training Cooperation



IAEA:

Regional school on Nuclear Security

- Workshop on Physical Protection
- Workshop on Safeguards and NDT

USDoE and USDoS-PNS

Search and Secure Training

- Inspection on Radioactive Source Security
- Workshop on Nuclear Sabotage
- Gap Analysis, Performance Testing
- Insider Threat and Human Reliability Program

KCL:

Workshop on Nuclear Security Culture

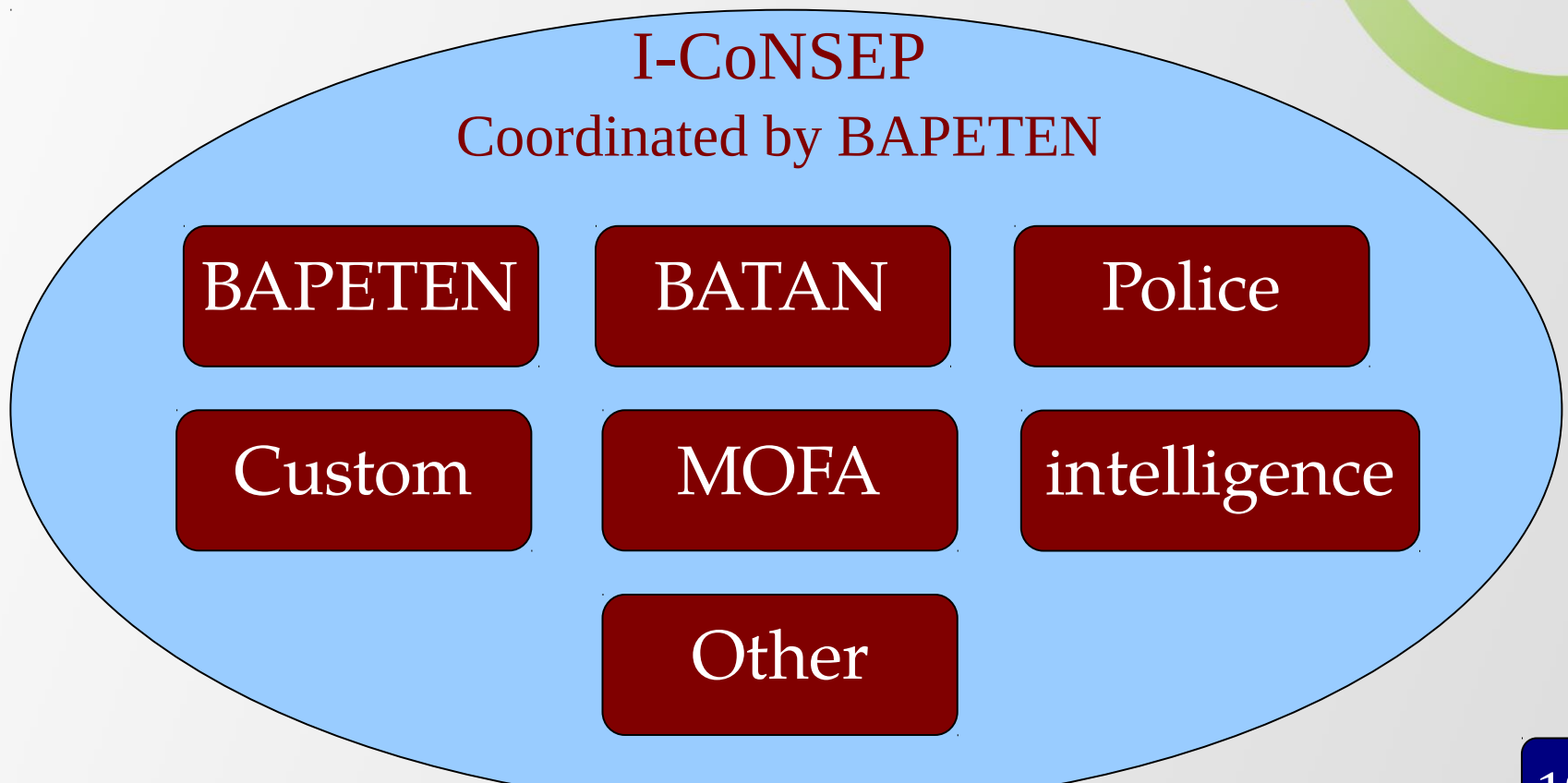
- Workshop on Insider Threat

UN:

Training course on Security of Export-Import

BATAN: Nuclear Security Activities

Involved in the Indonesian Center of Excellence on Nuclear Security and Emergency Preparedness (I-Consep)





NSSC in BAPETEN



BAPETEN Trainings on Nuclear Security



- 1. Training Course on Security of Radioactive Source**
 - For inspectors
 - For facilities: Research reactors, Hospitals, Radiation Protection Officer
- 2. National training course on radioactive sources security officer**
 - For facilities
 - Related authorities: police, bomb squad, army, ministry of transportation, customs, ministry of foreign affair
- 3. Fundamental of Nuclear Security**
 - For facilities
 - Related authorities: police, bomb squad, army, ministry of transportation, customs, ministry of foreign affair
- 4. Training for First Responder (FLO):**
 - Related authorities: police, bomb squad, army, ministry of transportation, customs, ministry of foreign affair. Especially for officers who work at the border.

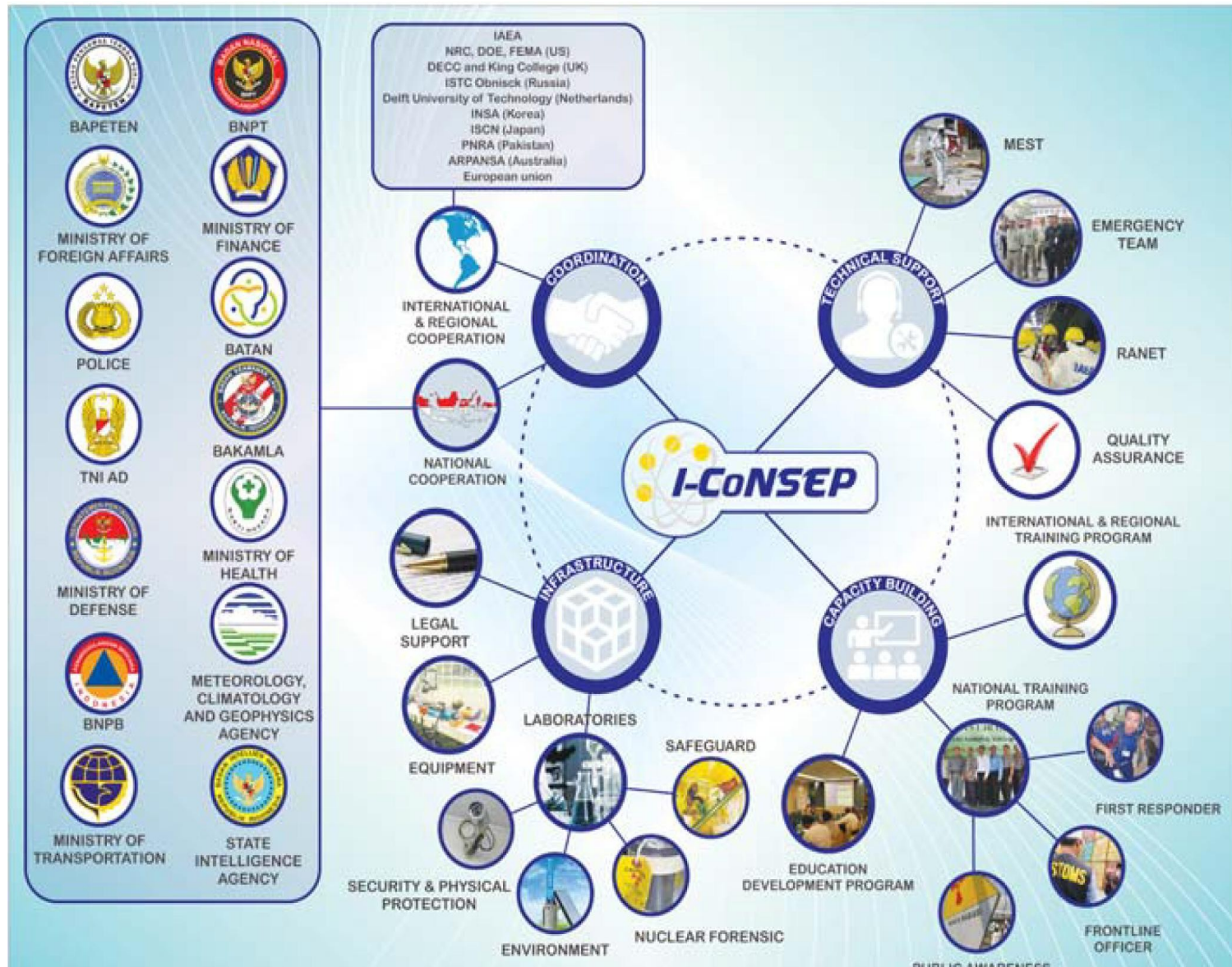


BAPETEN TRAINING PROGRAM 2015

1	Transport Regulatory Review	Feb. 23	BAPETEN HQ	31 Person
2	Nuclear Security and Safeguards Regulatory Review	Apr. 02	BAPETEN HQ	23 Person
3	Emergency Regulatory Review	Apr. 06	BAPETEN HQ	17 Person
4	Radioactive Sources Security Officer for Licensee	Apr. 7-9	ETC-CISARUA	38 Person
5	Radioactive Sources Security Officer for BAPETEN	May 5–7	BAPETEN HQ	15 Person
6	BAPETEN Junior Inspector for Radiation Safety	May 18–june 8	ETC-CISARUA	26 Person
7	Technical Guidance For Front Line Officer (FLO)	10-14 Nov 2015	Batam, Riau Islands	20 Person
8	Contingency Plan	Sep	Serpong	40 Person
9	Table Top Exercise	17 Sep	Serpong	30 Person
10	Drill 2015 (BAKAMLA – BAPETEN)	Des	Ambon	40 Person



Mind Map I-CoNSEP





Objective of I-CoNSEP

supporting and facilitating the development of sustainable human resources;

providing Support Services for lifecycle equipment management, the prevention, detection of, and response to nuclear security and emergency events;

fostering nuclear safety culture and nuclear security culture;

enhancing the national coordination and collaboration among the various competent authorities involved in the nuclear security matters and emergency preparedness and response;

becoming a centre for capacity building for Nuclear Security and Emergency Preparedness in the regional and international levels;

supporting regional and international information and experience sharing and co-operation in the fields of nuclear security and emergency preparedness; and

enhancing the national policy and diplomacy related to nuclear security and emergency preparedness.



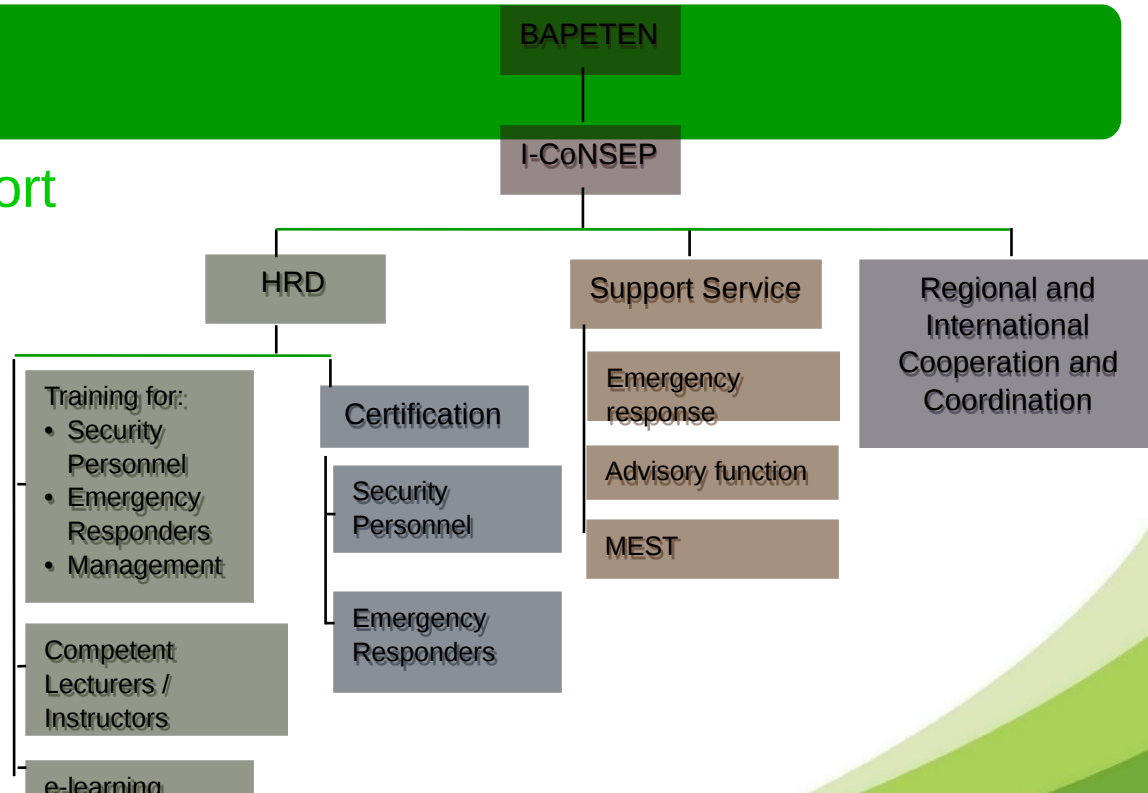
Roles of I-CoNSEP

Human resource development:

- National training programme;
- Training of Trainer, enhanced with certification; and
- Standardisation of syllabus on training courses.

Support services

- Policy and legal support
- Technical Support
 - Installation
 - Calibration
 - Maintenance
- Scientific Support
 - Expert support
 - Laboratory analysis



Expectation for Regional CoE

Development of personnel competencies for some levels

Development of training materials

ToT for intermediate/Advance levels

Development of nuclear security training laboratory

Conducting joint training workshop in Indonesia

Thank You

