

Overview of Asian Nuclear Safety Network

ASEM

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Origin

- **ANSN** : a Network of two different features;
 - ✓ a **human network** led by topical groups to carry out activities of common needs for member states
 - ✓ a **IT network** for sharing information on the web
- In 1996, the Moscow Nuclear Safety and Security Summit and the Tokyo Conference on Nuclear Safety affirmed a fundamental commitment to give an absolute priority to safety in the use of nuclear power.
- In 1997, IAEA “EBP on the Safety of Nuclear Installations in the South East Asia, Pacific and Far East Countries (**EBP-Asia**)” started. 155 activities were carried out since 1997 to 2003.
- In 2004, **ANSN** was fully implemented after being launched in 2002. Since then more than 458* activities have been conducted.

* up to the year 2013

Policy

- **Vision:** A strong human and IT network for achieving high level of nuclear safety in Asia
- ✓ **2 Missions:** Nuclear safety capacity building and sustainable regional cooperation
- ✓ **4 Strategies :** Self-initiative, strong human and IT network, practical knowledge and experience, and best use of existing resources



Implementing Structure

■ Membership:

Participating Country ; China, Indonesia, Japan, ROK, Malaysia, Philippines, Thailand, Vietnam, Singapore, Bangladesh, Kazakhstan, Russia

Supporting Country/Organization; France, Germany, USA, Australia, EC

Associated Country ; Pakistan

■ Implementing Bodies:

Plenary; policy and strategy making

Steering Committee; activity planning, approval and monitoring

Coordination Group; self-assessment support and TG coordination

9 Topical Groups; implementation on specific topical areas

IT Support Group; support for development of platform and module

■ Financial Support:

1997- 2003; Japan*, USA*, Spain ('97 to '01)

2004 -2013; Japan*, USA*, ROK (from '10), EC (from '10), Australia (in '06)

*every year uninterruptedly

Topical Group Formation

- **Education & Training**
- **Safety Assessment** (to merge both Safety Analysis and Operational Safety of NPP in 2016)
- **Emergency Preparedness & Response**
- **Radioactive Waste Management**
- **Safety Management of Research Reactor**
- **Siting**
- **Communication**
- **Regulatory Infrastructure** (to merge both Governmental & Regulatory Infrastructure and Leadership & Management for Safety in 2016)
- **Radiation & Transport Safety** (to be newly established in the future)

Activity Result

Results so far

- Management : 81*; Meeting
Regional : 222*; Meeting, Workshop, Training Course
National : 155*; Expert Mission, Workshop, Training Course
- Theme of Regional Activity (ex.);
LL Fukushima, OEF, CoC, IRS, INES, GRI-DeCom, Saf-Cul, NKM,
TNA, SARCoN, PSR, E-Dr, SA&V, DSA/PSA, ViSA/RELAP,
SAMG/EOP, BE/UC, V&V, CNS/JC, WSP-PDM&SD, SAT, SC&SA-PDF,
VST-HA
- Theme of National Activity (ex.);
NPP, VVER, CANDU, PWR, HTGR, R/R, TRIGA, RSG-GAS,
IRRT, IRRS, ETReS, INSARR, OSART, BPTC, OJT, TC-ISI/WC, TNA
QMS, Saf-Cul, ISI, RCM, CBM, RPV, UHR/RCI, SG, ECT, DIC, SAR,
V&V, PSA, RCA, HF, SG-ECT, LTO-Mgt, I&C-Mod, D-APM, SAT,

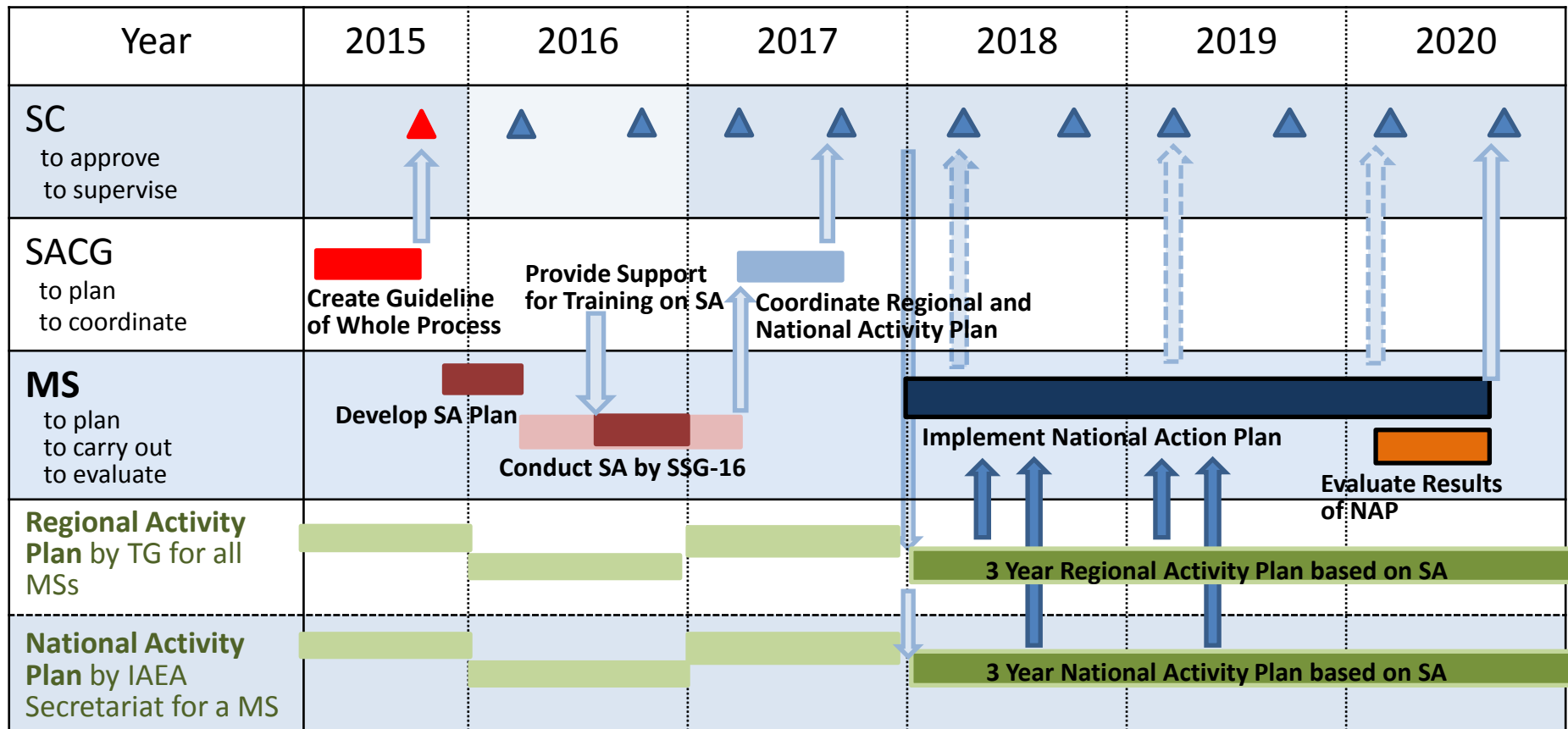
* : number totaling since 2004 to 2013

Abbreviations are explained in Appendix.

Activity Plan

Plan from now on

- To put more importance on MS's self-initiative attitude
- MS to conduct self-assessment and develop NAP to fill gaps found



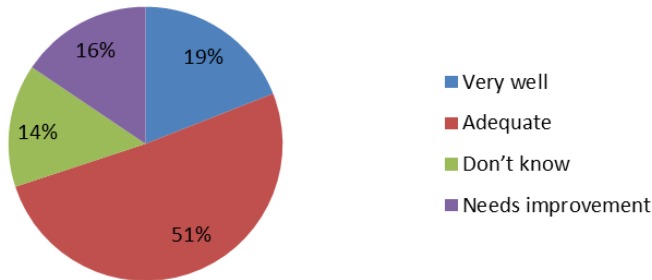
GNSSN Survey on ANSN

- In 2014, the Global Nuclear Safety and Security Network (**GNSSN**) carried out a **survey** among 516 senior staff from 75 Member States.
- The purpose of the survey was to **evaluate** the **network capability** to enhance and strengthen governmental, organizational and individual competences and capacities, as well as to provide concrete recommendations and feedback.
- Over **40%** of the replies were received from **ANSN countries**.

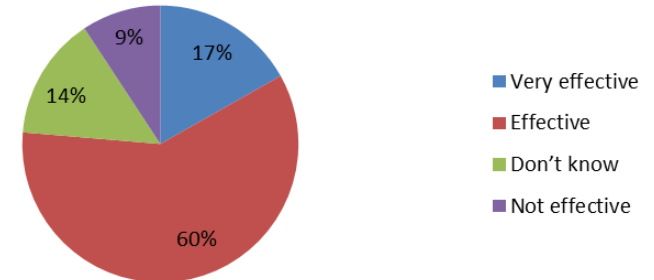
GNSSN Survey on ANSN

213 senior officials in ANSN countries replied to the GNSSN survey in 2014.

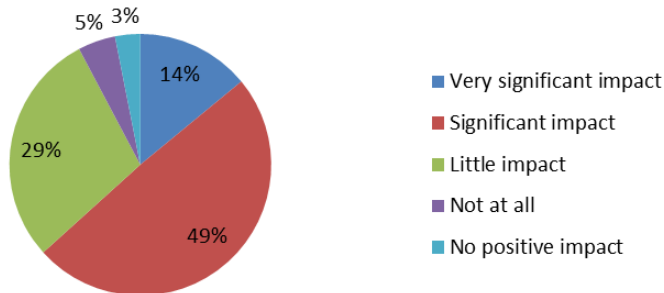
How well does the Network meet your needs? 70% positive



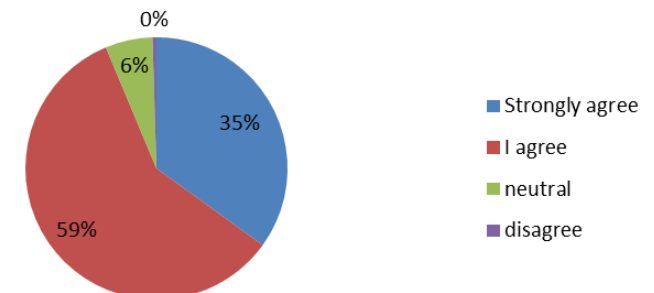
Is the Network effective in serving its members? 77% positive



How much has your participation in the Network activities influenced you or your organization's work? 63% significant impact



The Network is facilitating the sharing of operation experience feedback, lessons learnt and good practices - 94% agree



Summary

- ANSN has played an **important role** in **building** nuclear safety **capacity** through **regional cooperation** for more than ten years, which is confirmed through the GNSSN survey.
- ANSN has **updated** the **self-assessment process** for MSs which would become bases for specific cooperation. Cooperation should be consistent with needs assessed by the recipient country itself.
- ANSN will actively **collaborate with other regional cooperation** to share nuclear safety knowledge and experience.

Thank you for your attention



Appendix : Abbreviations

LL Fukushima	Lessons Learned from Fukushima Dai-ichi Accident	RELAP	Reactor Excursion & Leak Analysis Program
OEF	Operational Experience Feedback	SAMG	Severe Accident Management Guideline
CoC	Code of Conduct	EOP	Emergency Operating Procedure
IRS	Incident Report Service	BE	Best Estimate
INES	International Nuclear Event Scale	UC	Uncertainty
GRI	Governmental & Regulatory Infrastructure	V&V	Verification & Validation
DeCom	De-commissioning	CNS	Convention on Nuclear Safety
Saf-Cul	Safety Culture	JC	Joint Convention
NKM	Nuclear Knowledge Management	WSP	Waste Safety Practice
TNA	Training Needs Assessment	PDM	Pre-Disposal Management
SARCoN	Systematic Assessment of Regulatory Competence Needs	SD	Surface Disposal
PSR	Periodic Safety Review	SAT	Systematic Approach to Training
E-Dr	Emergency Drill	SC&SA-PDF	Safety Case & Safety Assessment of Pre-Disposal Facility
SA&V	Safety Assessment & Validation	VST-HA	Volcanic, Seismic and Tsunami Hazard Analysis
DSA	Deterministic Safety Assessment	NPP	Nuclear Power Plant
PSA	Probabilistic Safety Assessment	VVER	(Russian Type Reactor)
ViSA	Visual System Analyzer	CANDU	(Canadian Type Reactor)

Appendix : Abbreviations

PWR	Pressurized Water Reactor
HTGR	High Temperature Gas Cooled Reactor
R/R	Research Reactor
TRIGA	Training, Research, Isotopes, General Atomic
RSG-GSA	(Indonesian Type Multipurpose Reactor)
IRRT	International Regulatory Review Team
IRRS	International Regulatory Review Service
ETReS	Education & Training Review Service
INSARR	Integrated Safety Assessment of Research Reactor
OSART	Operational Safety Review Team
BPTC	Basic Professional Training Course
OJT	On-the-Job Training
TC	Training Course
ISI	In-Service Inspection
WC	Water Chemistry
TNA	Training Needs Assessment
QMS	Quality Management System

RCM	Reliability Centered Maintenance
CBM	Condition Based Maintenance
RPV	Reactor Pressure Vessel
UHR	Reactor Upper Head
RCI	Reactor Core Internal
SG	Steam Generator
DIC	Digital Instrumentation & Control
SAR	Safety Analysis Report
RCA	Root Cause Analysis
HF	Human Factor
ECT	Eddy Current Testing
LTO-Mgt	Long Term Operation Management
I&C-Mod	Instrumentation & Control Modernization
D-APM	Dynamic Alarm Priority Management
SAT	Site Acceptance Test