

# Development of Safety Network in Europe and Central Asia

Background, Status and Next Challenges

*Safety and Security Coordination Section  
Department of Nuclear Safety & Security*



**IAEA**  
International Atomic Energy Agency



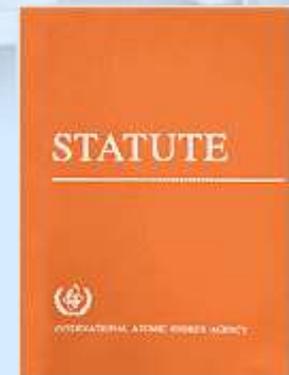
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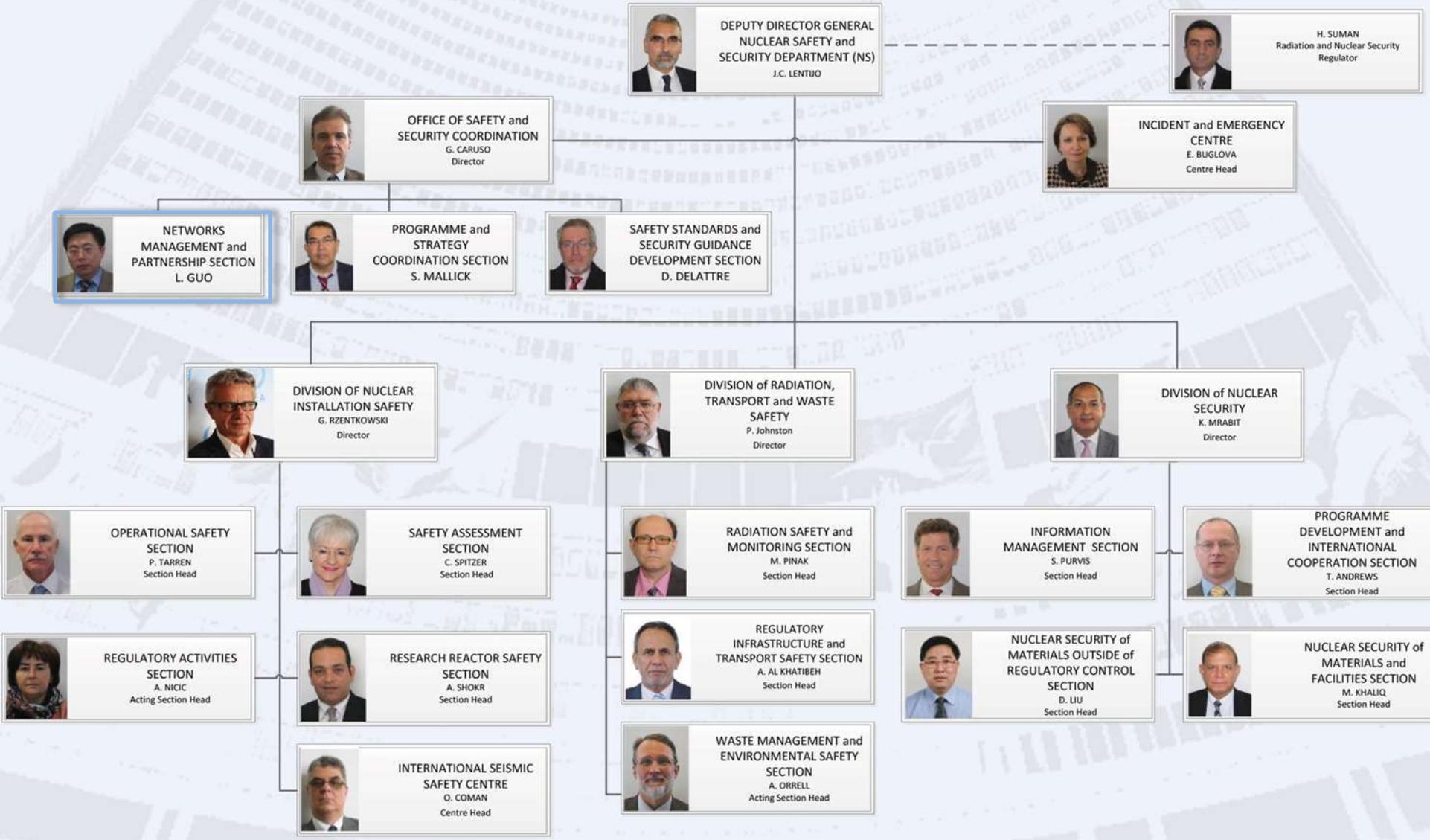
# Role of the IAEA, Safety and Networks

- **IAEA statute Article III, A.6:** focuses on the creation, promotion and application of **safety standards** for protection of health and minimization of danger to life and property
- **The Agency is further authorized:** to foster the exchange of scientific and technical information and the exchange and training in the field of peaceful uses of atomic energy.



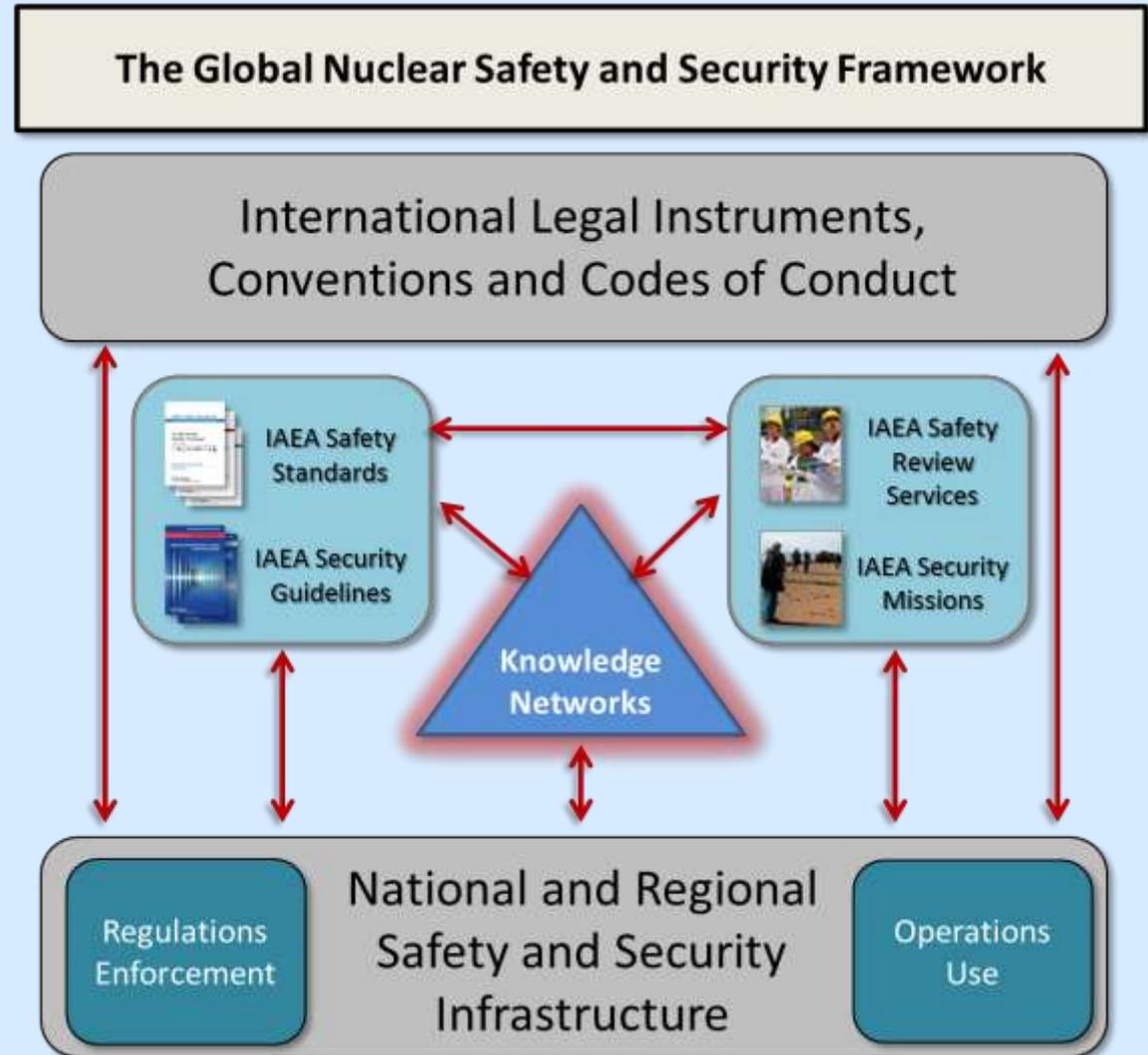
# Nuclear Safety in IAEA

## Department of Nuclear Safety and Security



# 1. Background | Networks have a key role in the GNSSF

The Global Nuclear Safety and Security Network (GNSSN) was created in 2006 following the recommendations contained in the International Nuclear Safety Group (INSAG) report on Strengthening the Global Nuclear Safety Regime (INSAG Series No. 21).



# 1. Background | Networks are key elements for Capacity Building



**Strategic Approach for Education and Training** developed an **integrated concept for capacity building** composed of four main pillars, which are interconnected:

- Education and training,
- human resource development,
- Knowledge management and
- **Knowledge networks (within GNSSN).**

It is endorsed by the IAEA Board of Governors.

# NS Services on E&T

- **ETRES - Education and Training Review Service (ETRES)**

The objective is to assist Member States to develop and to maintain a sustainable and adequate E&T programme inline with IAEA Safety Standards and international good practices, with due recognition to national conditions.

- **SARCoN - Systematic Assessment of Regulatory Competence Needs for Regulatory Bodies of Nuclear Facilities**

The objective of SARCoN is to provide guidance and information on specific and **practical means to support the implementation of the IAEA Safety Standards in the area of ensuring regulatory competence.**

SARCoN offers a step by step approach to develop competence profiles for specific regulatory tasks or positions and to analyze existing and required regulatory competences for individuals or organizational units in order to identify gaps and thus competence and training needs. Implemented by about 30 IAEA MS.

# SARCON methodology

## *Process 1* Developing competence profiles

Step 1

Regulatory functions

Step 2

Specific tasks

Step 3

Competence profiles

## *Process 2* Competence gap analysis

Existing competences

Competence profiles

Competence gap analysis

Training & Development,  
Reorganization, Recruitment  
or Outsourcing

## *Process 3* Periodic review

Periodic Review

# The GNSSN - Mission



**GNSSN**  
Global Nuclear Safety and Security Network



**Building Capacity for  
nuclear safety and  
security**



**Sharing and Managing  
information and  
knowledge**

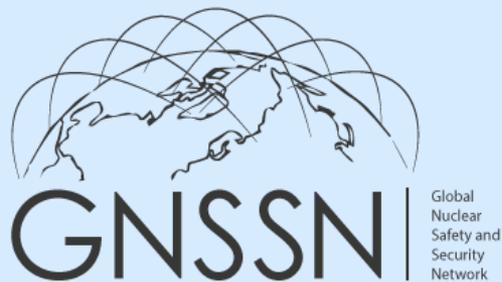


**Enable Multilateral  
Cooperation and  
Coordination**



**Reinforce Global Nuclear Safety  
and Security Framework**

# Content of the GNSSN & New Networks



## GNSSN Elements

### Global Networks and Fora

International Regulatory Network (RegNet)

SMR Regulators' Forum

Regulatory Cooperation Forum (RCF)

WWER Regulators' Forum

Forum for Senior Regulators of CANDU Reactors

Regulatory Peer Review Services online space (...)

Control of Sources Network (CSN)

Education and Training Network in Nuclear Waste and Radiation Safety

Nuclear Security Information Portal (NUSEC)

Technical and Scientific Support Organization Forum (TSOF)

Emergency Preparedness and Response Network (EPnet)

Global Safety Assessment Network (GSAN)

Occupational Radiation Protection Networks (OPRnet)

Safety and Security Communication Network (GNSCOM)

### Regional Safety Networks

Arab Network of Nuclear Regulators (ANNuR)

Asian Nuclear Safety Network (ANSN)

Forum of Nuclear Regulatory Bodies in Africa (FNRBA)

Ibero-American Forum of Radiological and Nuclear Regulatory Agencies (FORO)

Europe and Central Asia Safety Network (EuCAS) - New

*[Liaison with regional networks external to the IAEA (e.g. the European Nuclear Safety Regulators Group (ENSREG), Western European Nuclear Regulators Association (WENRA)]*

### National Level

Each Member State has its own National Nuclear Safety Knowledge Platform serving as an interface to the national platforms and International Community

# What is a Regional Safety Network 1/2

Current Regional Safety Networks administered by the IAEA exist in South America, Asia, Africa and the Arab region with :

- **FORO** - Ibero-American Forum of Radiological and Nuclear Regulatory Agencies
- **ANSN** - Asian Nuclear Safety Network
- **FNRBA** - Forum on Nuclear regulatory Bodies in Africa
- **ANNuR** - Arab Network of Nuclear Regulators

They share many characteristics (objectives, participation, organization, scope, activities...)

**E&T:** Regional safety networks 1) implement training 2) implement activities to improve national E&T

# What is a Regional Safety Network 2/2



## Regional Area

- Safety is a trans-boundary issue in nature,
- Nuclear technology development in countries of in the same region is intertwined.



## Large Safety Scope

- Scope typically encompass a very broad range of safety issues (IAEA safety standards).
- Not always limited to Regulatory Bodies. Activities may be open to TSOs and Operators

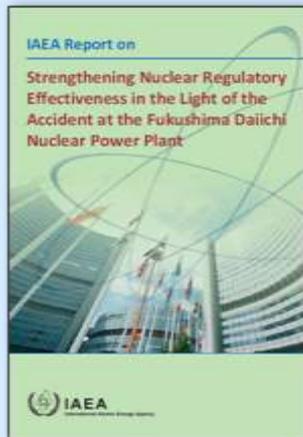


## Network type of activities

- Networks are groups of interconnected people, with common professional interest. They mostly gather regulatory bodies and TSOs.
- GNSSN networks have both online platform and physical existence
- A network is self-determined, the Agency only acts as the Secretariat. It can be represented by its Chair, take position, tissue a report, etc.



# GC resolution and Fukushima LL supporting regional safety networks



- The Safety Resolution GC(56)/RES/9, encouraged “the Secretariat to assist in the establishment of [safety] fora and networks in regions where they do not exist”. Similar statements were issued, in 2013 and 2014, welcoming the establishment of regional safety forums and related networks
- In 2013, the IAEA Report on Strengthening Nuclear Regulatory Effectiveness in the Light of Fukushima:
  - called for the reinforcement of international cooperation in the form of regional relations and
  - stated that “sharing regulatory information and best practices among regulatory bodies can be achieved through regional networks”.

# Regional Safety Networks - ANSN



- ▶ **The Asian Nuclear Safety Network (ANSN) was launched in 2002**
- ▶ **Vision: A strong human and IT network for achieving high level of nuclear safety in Asia**
- ▶ **ANSN has conducted more than 60 national and regional activities per year every year since 2004**
- ▶ **Membership:**
  - Participating Country : PRC, Indonesia, Japan, ROK, Malaysia, Philippines, Thailand, Vietnam, Singapore, Bangladesh, Kazakhstan,
  - Supporting Country and Organization: France, Germany, USA, Australia, EC
  - Associated Country: Pakistan

# Regional Safety Networks - ANNuR



- ▶ **The Arab network of nuclear regulators (ANNuR) was created in 2010**
- ▶ Ensure that safety, security and knowledge, experience, and lessons learned are made visible and available. Enable and support interaction and collaboration between experts and organizations relevant to nuclear regulation.
- ▶ 22 Member States, 8 thematic areas, over 40 Regional workshop implemented
- ▶ May 2014, ANNuR and IAEA signed a practical agreement on cooperation in the area of strengthening the nuclear safety and security frameworks

# ANNuR Member Countries

22 member states in LAS

## African Countries

Egypt  
Libya  
Sudan  
Tunisia  
Mauritania  
Morocco  
Algeria  
Comoros  
Djibouti  
Somalia

## Asian Arab Countries

Iraq, Jordan, Lebanon,  
Palestine, Syria, Yemen,

## Gulf Countries

Bahrain  
KSA  
Kuwait  
Oman  
Qatar  
UAE



# Regional Safety Networks - FNRBA



- ▶ **the Forum of Nuclear Regulatory Bodies in Africa (FNRBA) was in March 2009, launched in Pretoria, South Africa by the leaders of nuclear regulatory bodies in the region.**
- ▶ 33 Member States, 10 Thematic Areas
- ▶ Practical Arrangements signed in 2013 to support the enhancement and strengthening of the radiation protection, nuclear safety and security, and regulatory infrastructure in MS which are members of FNRBA.

# FNRBA Website

## Recent Videos



## Publications



## Relevant Links



The African Regional Cooperative Agreement for Research, Development and Training Related to Nuclear Science and Technology (AFRA) agreement provides a framework for African Member States to



## Welcome to Forum of Nuclear Regulatory Bodies in Africa



*"Instrumental in strengthening the regulatory infrastructure and framework for radiation protection and nuclear safety and security in Africa"*

The Forum of Nuclear Regulatory Bodies in Africa (FNRBA) was established on 26 March 2009. The establishment of FNRBA is considered as a key milestone catalyzing the enhancement, strengthening and harmonization of radiation and nuclear safety and security regulatory infrastructure in member states and serve as effective platform for the exchange of regulatory experiences and practices among the nuclear regulatory bodies in Africa.

The purpose of FNRBA is to be instrumental to the enhancement, strengthening and harmonization of the radiation protection, nuclear safety and security regulatory infrastructure and framework among its members.

## News



[FNRBA Strategic Action Plan](#)

**September 2015 in Vienna:** FNRBA plenary members approves a proposal for the Strategic Action Plan of FNRBA. This will reach the approval of Member States.

## Highlights

- 33 African countries.
  - 10 technical working groups.
  - 8 workshops in 2015.
- [FNRBA overview](#)

## Upcoming Events

Workshop on Small Modular Reactor Safety and Licensing

**IAEA, Vienna**



Event Date: 07 Jun 2016 - 10 Jun 2016

First Regional Coordination Meeting - Building Competent Authority Effectiveness on Regulating the Transport of Radioactive Material

**Nairobi, Kenya**



Event Date: 22 Feb 2016 - 26 Feb 2016

# Why a new network in Europe and Central Asia?

Throughout its work with other regional networks, the Secretariat noted :

- Many countries from Eastern Europe, South-Eastern Europe and Central Asia, including embarking countries, **do not currently participate in any regional safety network.**
- Existing European safety groups or fora are mostly EU centred.
- Existing safety networks in European region have quite **narrow topical scope** (e.g. focusing only on nuclear energy, on one type of reactor, on research reactors, on legacy issues, etc.) and **do not implement capacity building** activities.
- A regional network with large thematic and geographical scope would help **sharing feedback and giving visibility to many ongoing sub regional or specialised safety initiatives** in Europe and Central Asia.

## 2. Current Status | Recent Developments

- Two CS on 4-6 Feb and 6-8 May 2015. Very positive conclusions, incl. guidance on the next steps and draft Terms of Reference.
- The European Commission, WENRA Chair and HERCA Vice-Chair joined some of the preparatory meetings and expressed support to the project
- A I Meeting took place on 2-4 March 2016 in Vienna to “Networking and Cooperation on Nuclear Safety at Regional level in Europe and Central Asia”: **23 representatives of Regulatory Bodies and TSOs from 19 Member States in the region.** The participants agreed on **Terms of Reference** for the new network.
- Regulatory authorities expressed interest in Armenia, Azerbaijan, Bosnia & Herzegovina, Belarus, Belgium, Bulgaria, France, Greece, Hungary, Kazakhstan, Lithuania, Norway, Russian Federation, Romania, Serbia, Slovenia, Switzerland.

## 2. Current Status | Proposed Characteristics of the Network 1/2

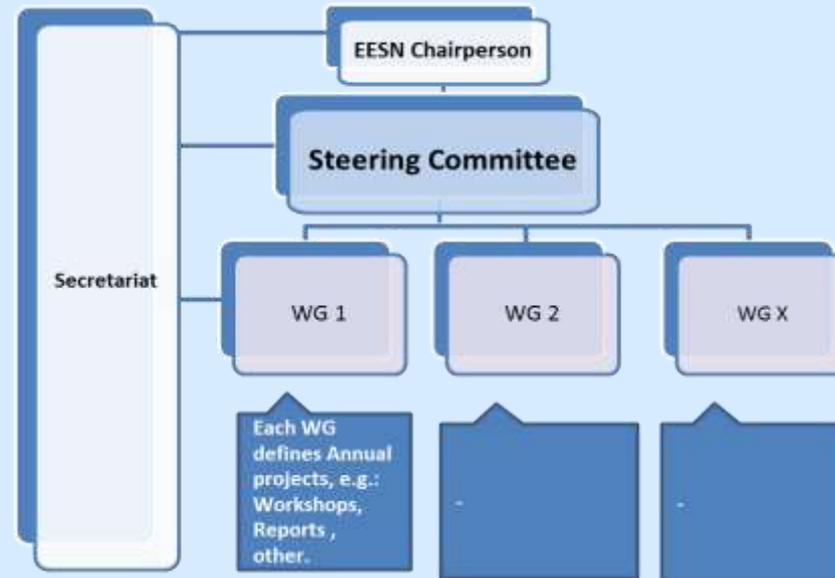
Topical scope

→ “Nuclear and Radiological Safety”

Objectives

→ Sharing experience and knowledge, Capacity Building, Facilitate Cooperation and Convergence of Views + Give visibility to existing projects in the region.

Proposed Structure



Membership

→ Network Members are Countries

Members of the Steering Committee are designated individuals from the RB

WG or activities can include participants from operators

## 2. Current Status | Proposed Characteristics of the Network 2/2

### Geographical Scope

→ The countries to which the Network is “open for membership” are :

Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Kazakhstan, Kirghizstan, Uzbekistan, Tajikistan, Turkmenistan, Macedonia, Moldova, Mongolia, Montenegro, Norway, Russian Federation, Serbia, Switzerland, Turkey, Ukraine, EU Member States, EC (observer).

### Types of activities

→ Typically decided annually by the SC.

- Meetings of the SC and Working Groups
- Maintenance of an online platform, for sharing information of regional interest
- As needed, Capacity Building activities, Workshops on issues of common interest, Expert Missions, etc.

# 3. Upcoming Challenges and Future Steps

- A Consultancy Meeting is organized on 27-30 June with a smaller group of motivated experts, to define 3 to 4 EuCAS working groups, propose a work plans for 2017, identify possible “lead” member/coordinators for each working groups and help with the creation of the website.
- The First Steering Committee Meeting EuCAS Network’s First is scheduled in Vienna on **7-9 December 2016**.

*Working to protect people,  
society and the environment*



*Thank you*