

Nuclear Detection Working Group

Overview of Context, Goals, and Format

February 19, 2013

Madrid, Spain

Mark Wittrock

Deputy Assistant Director, International Cooperation

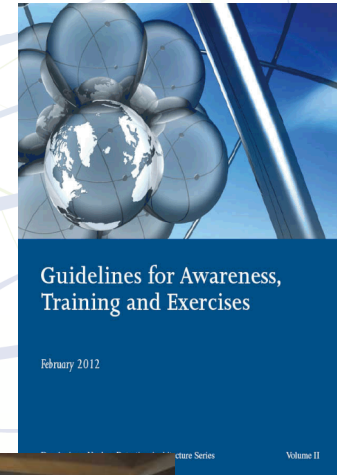
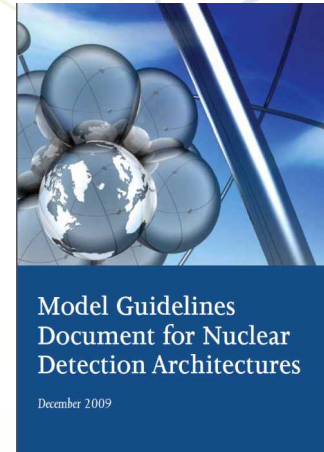
Domestic Nuclear Detection Office
U.S. Department of Homeland Security

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Context and Previous Activities

- 2010 GICNT meeting in Garmisch-Partenkirchen, Germany
 - Developed recommendations for future meetings/guidelines
- “Developing a Nuclear Detection Architecture Series”
 - Volume I: Model Guidelines Document (Dec. 2009)
 - Volume II: Awareness Training and Exercise (Feb. 2012)
 - *Volume III: Planning and Organization (Feb. 2013)*
- 2012 NDWG Symposium on Enhanced Detection of SNM
- IAEA Adaptation of the Model Guidelines Document



Marrakech, Morocco February 2012

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NDWG Agenda

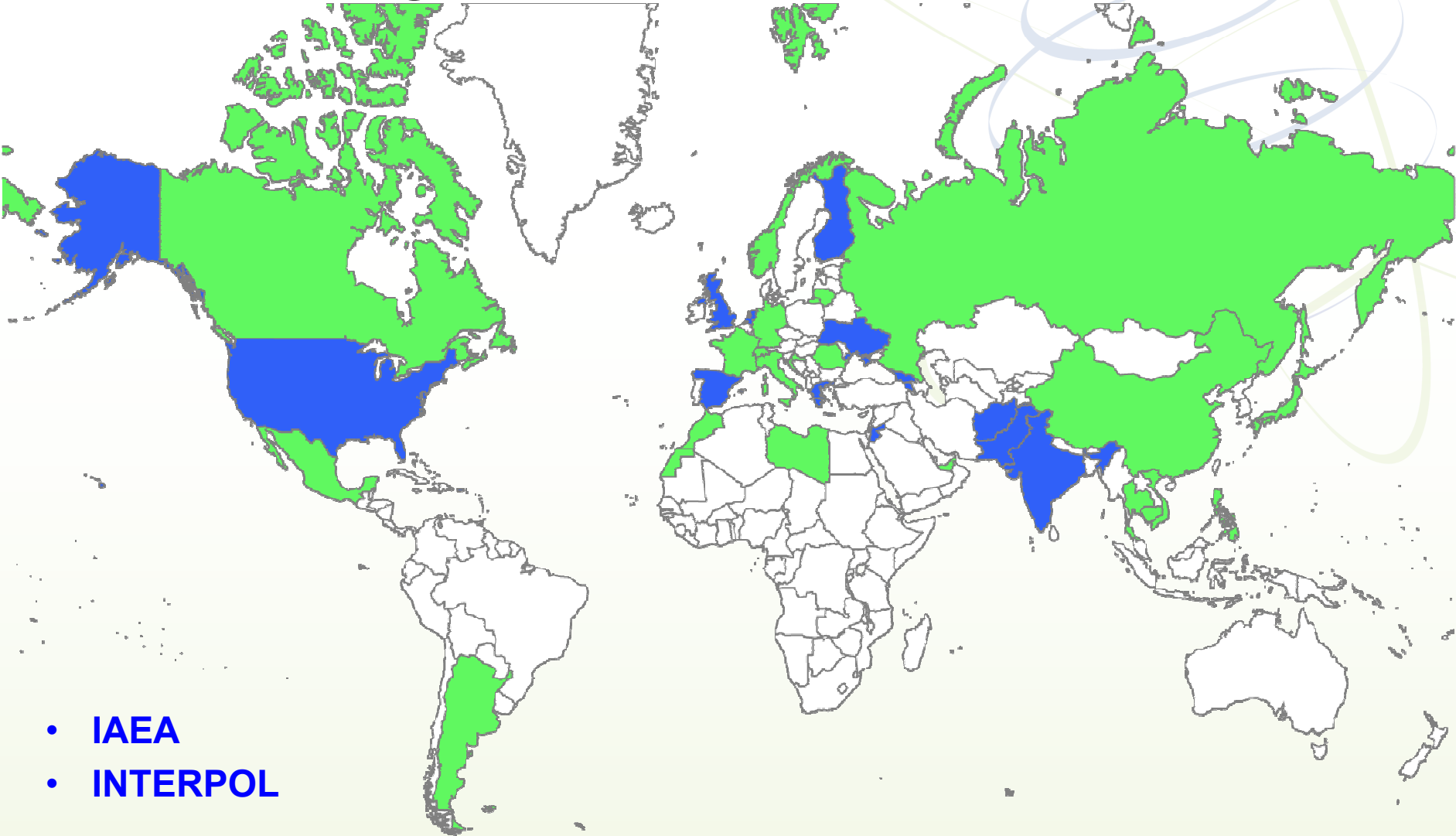
	Tuesday	Wednesday	Thursday
0930-1100	Plenary	<u>WG Session 2</u> Final Review of “Guidelines on Planning and Organization”	<u>WG Session 4</u> Volume IV: Scoping and content development <ul style="list-style-type: none"> Case Study: “Challenges with Detection Technologies” (Greece)
1130-1300	Plenary	<u>WG Session 3</u> Tabletop Exercise	<u>WG Session 5</u> Volume IV: Scoping and content development <ul style="list-style-type: none"> Case Study: “Title?” (Afghanistan)
1430-1600	<u>WG Session 1</u> Final Review of “Guidelines on Planning and Organization”	Plenary	<u>WG Session 6</u> GICNT Guidelines Adaptations and NDWG Future Activity Roadmap

WG Sessions 1-2: Guidelines for Planning and Organization

- NDWG Meeting in Marrakech, Morocco
 - Modified outline and finalized document scope
 - Discussions served as the basis for the initial draft
 - Formed an international “Drafting Group”
- Drafting group further developed document content and case studies
- NDWG Meeting in Lviv, Ukraine
 - Reviewed document and developed additional content as appropriate
- Two virtual review and comment periods
- *Current Status: Last-call for comments and finalization of document*



Contributing States to the P&O Document



- IAEA
- INTERPOL

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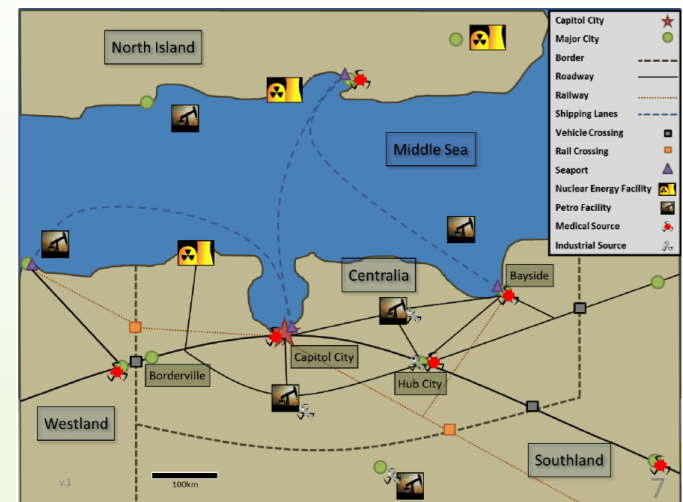
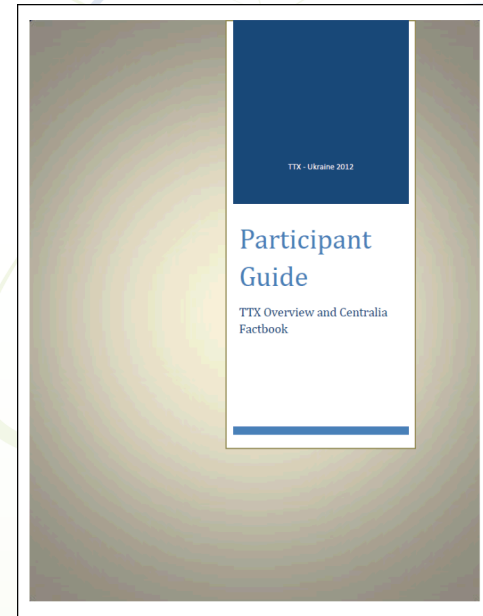
- Workshop Participants (Marrakech and Lviv)
- Drafting Group Member, case study presenter, moderator, and/or reviewer

WG Session 3: Tabletop Exercise (TTX)

- Exercise simulates planning for the deployment of detection capabilities in the domestic interior of a fictional country of “Centralia”
- TTX Objectives
 - **Demonstrate** and **apply** important planning and organization concepts related to nuclear detection architecture development
 - **Share perspectives** on implementation approaches and best practices
 - Facilitate **discussion and exchange** on real-world nuclear detection experiences, challenges, and lessons-learned
 - **Identify challenges and facilitators** for detection in the domestic interior portion of a nuclear detection architecture

Table-Top Exercise: Overview Cont'd

- Participant guide provides background information on Centralia
- Participants will break into smaller discussion groups
- TTX group moderator will walk through a scenario and pose questions for participants to discuss as a group



WG Sessions 4-5: Motivations for Volume IV

Themes from 2010 GICNT meeting (Garmisch, Germany)

- A nuclear detection architecture is more than just radiation detection instruments
 - “Technology” is broader than just radiation detection instruments
 - Detection instruments are necessary but not sufficient
- Detection can occur by instrument alarm or information alert
 - Multi-mission technologies can be leveraged by the architecture
 - States already have some relevant technologies deployed
- Need to effectively integrate technology. Considerations include:
 - Existing missions and operations
 - Legal frameworks
 - Technical integration
 - Information integration

Scoping Volume IV: Participant Feedback

- Document should be concise
- Guidance should be actionable
- Guidance should be consistent with existing documents but not redundant
- Guidance should be approachable for architectures at multiple levels of development

Existing International Guidance

- Detection fundamentals
- Types of radiation detection technologies
- Concepts of operations
- Instrument deployment and technical guidance
- Detection at borders and at major public events

Gaps in International Guidance:

- Detection in the domestic interior pathway
- Guidance written from an operational perspective

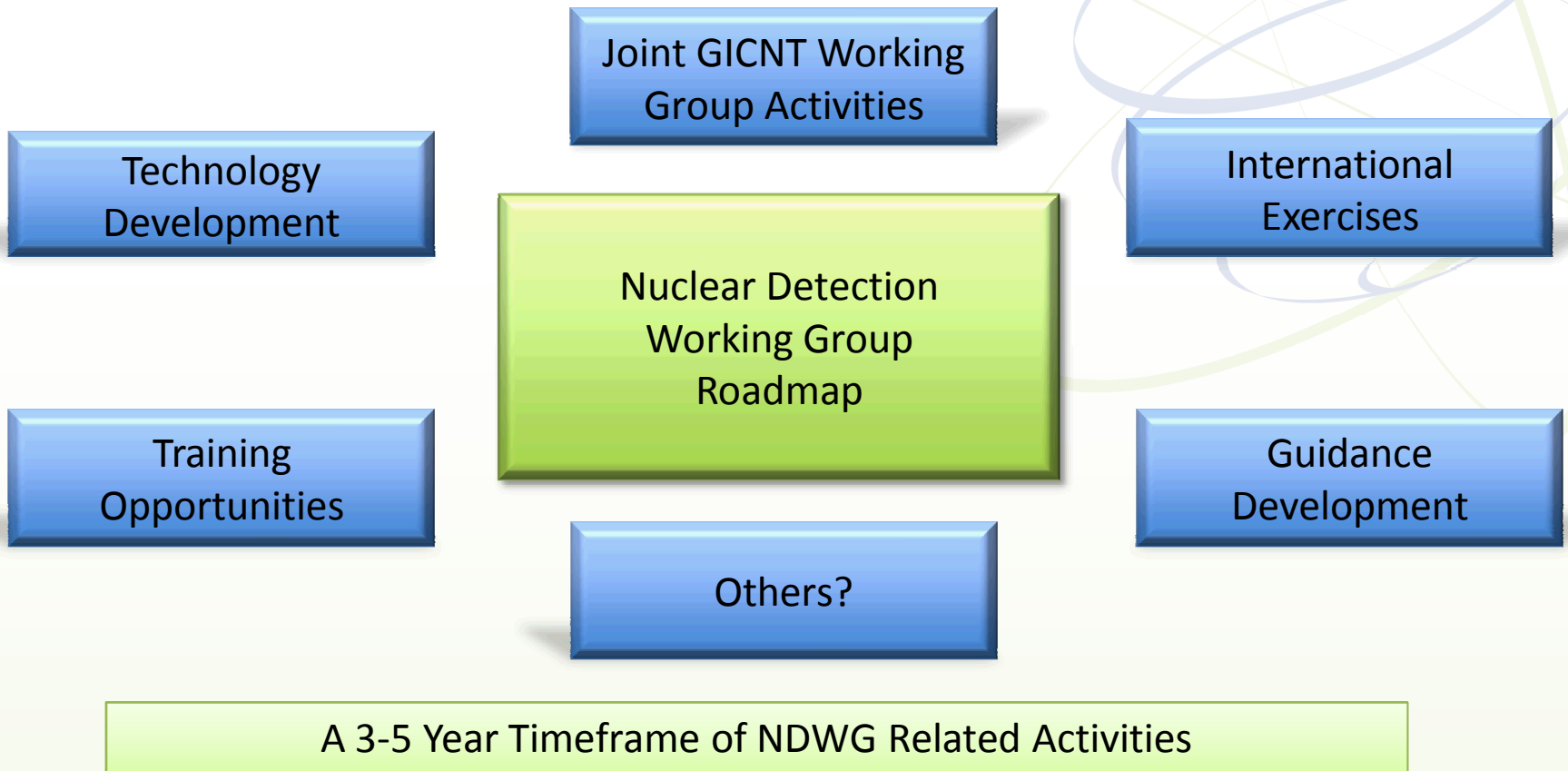
Proposed Strategy for Discussions and Document

- WG Session 4
 - Discuss document scope and detection challenges
- WG Session 5
 - Use the detection challenges to frame a discussion on architecture capabilities that can address the challenges
- Document
 - Use the results of the WG discussions to:
 - Prioritize the challenges and capabilities lists
 - Develop a framework/analysis section that links the challenges and capabilities
 - Case studies from NDWG partners on example implementation of capabilities to address challenges used to supplement the framework

Volume IV: Discussion Goals

- Consensus on specific document topic
- Consensus on a specific document audience
- Consensus on a specific document tone
- Consensus on a specific document format (length, organization)
- Robust set of challenges and facilitators
- Drafting group volunteers
 - List of potential case study topics
 - List of interested authors

WG Session 6: NDWG Roadmap



Lviv Workshop Outcomes: Candidate Themes

- Role of interior law enforcement and first responders
- Detection challenges and guidelines in the spaces between POEs (e.g. green borders, air, maritime)
- Technical support for detection (reach-back)
- Surge operations
- Legal and regulatory guidance for detection
- International detection coordination

Lviv Workshop Outcomes: Possible Formats

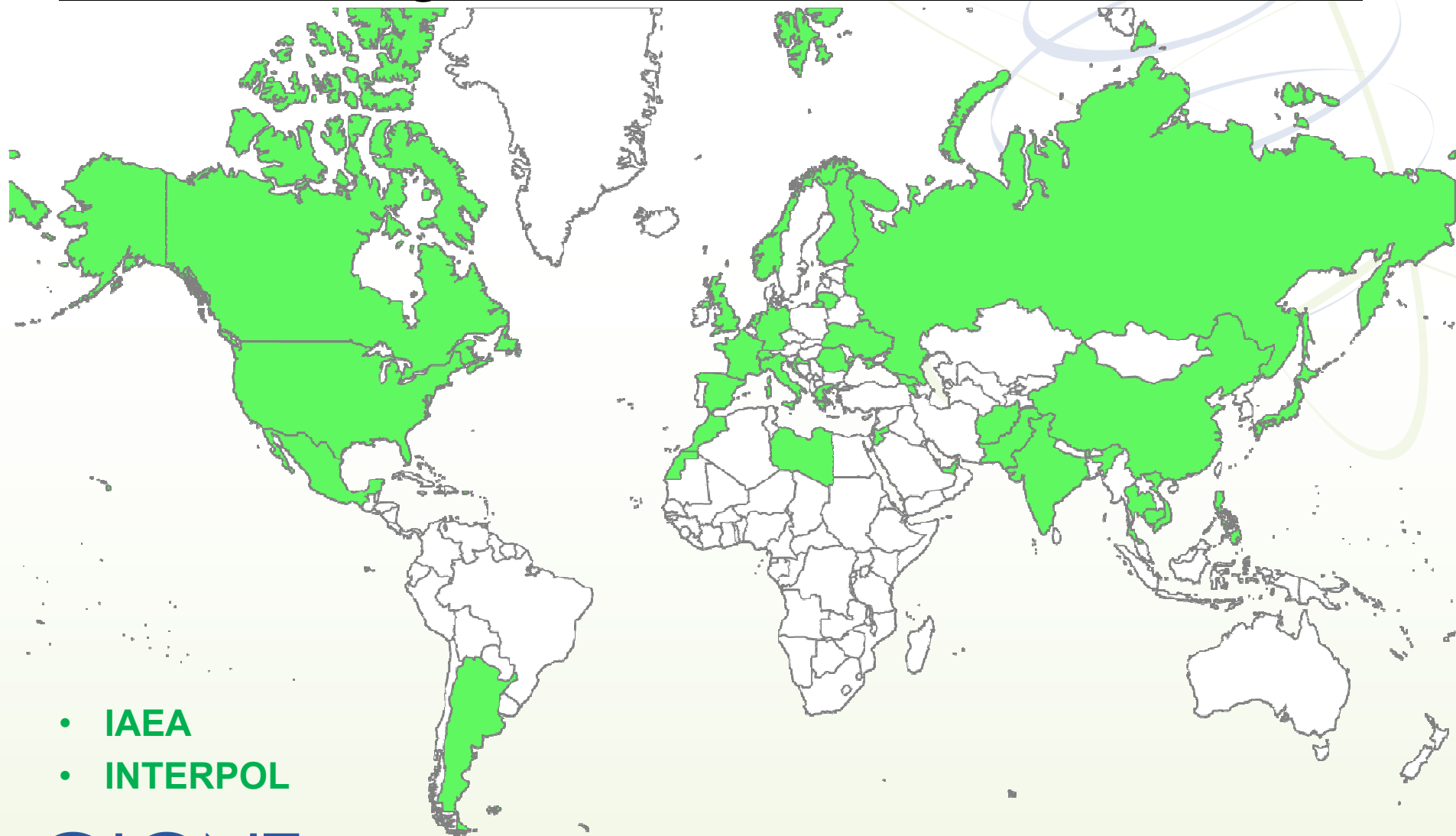
- Development of guidelines documents
- Development of Implementing tools
 - Checklists, training and curriculum development and harmonization, and virtual learning tools
- Exercises
 - Thematically focused working group TTXs
 - Regional / multinational TTXs
 - Field exercises
 - Detection team “challenge” exercises
- Technology engagement
 - Technology reviews, site visits, and technical demonstrations



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Contributing States to the P&O Document

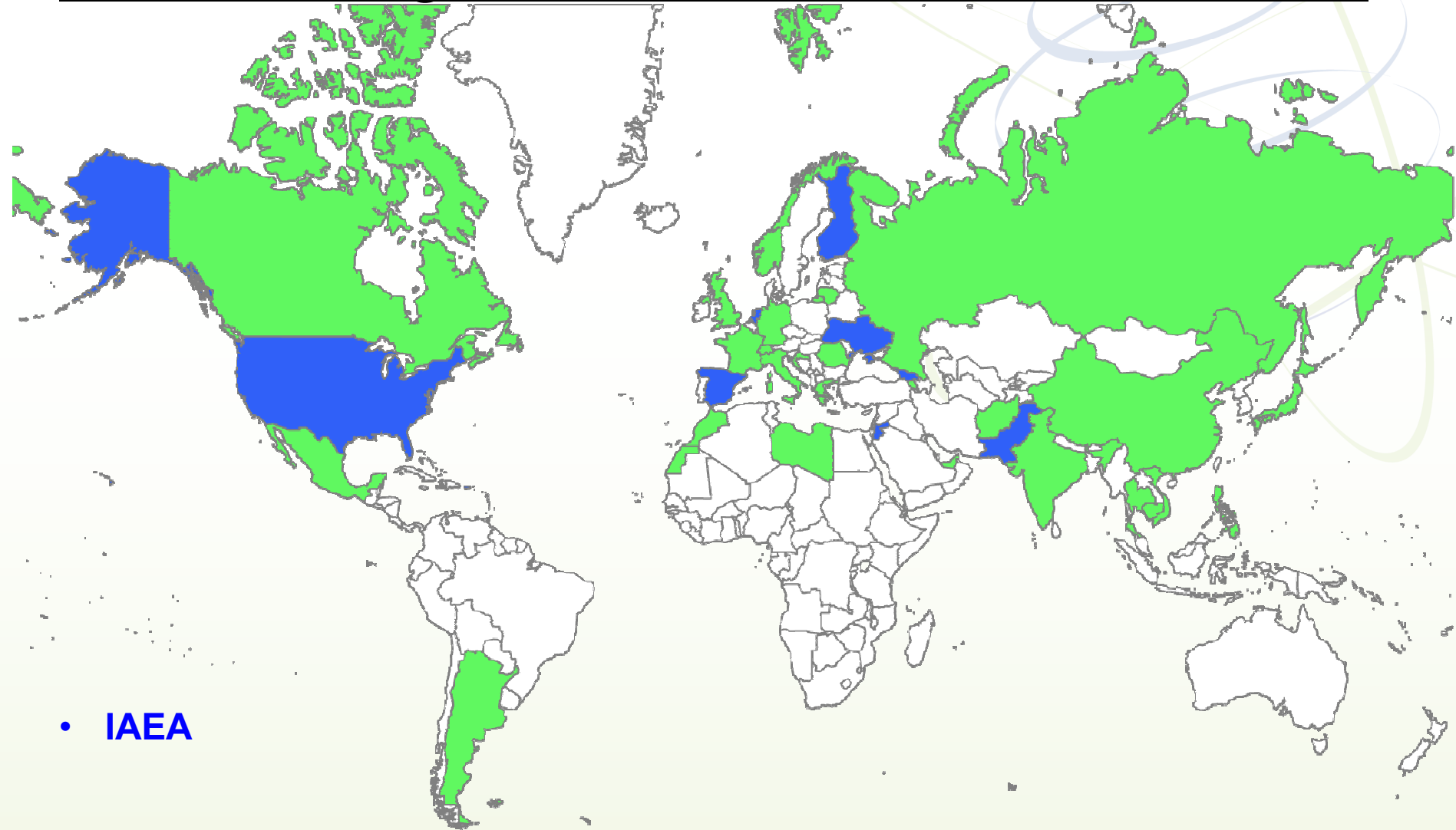


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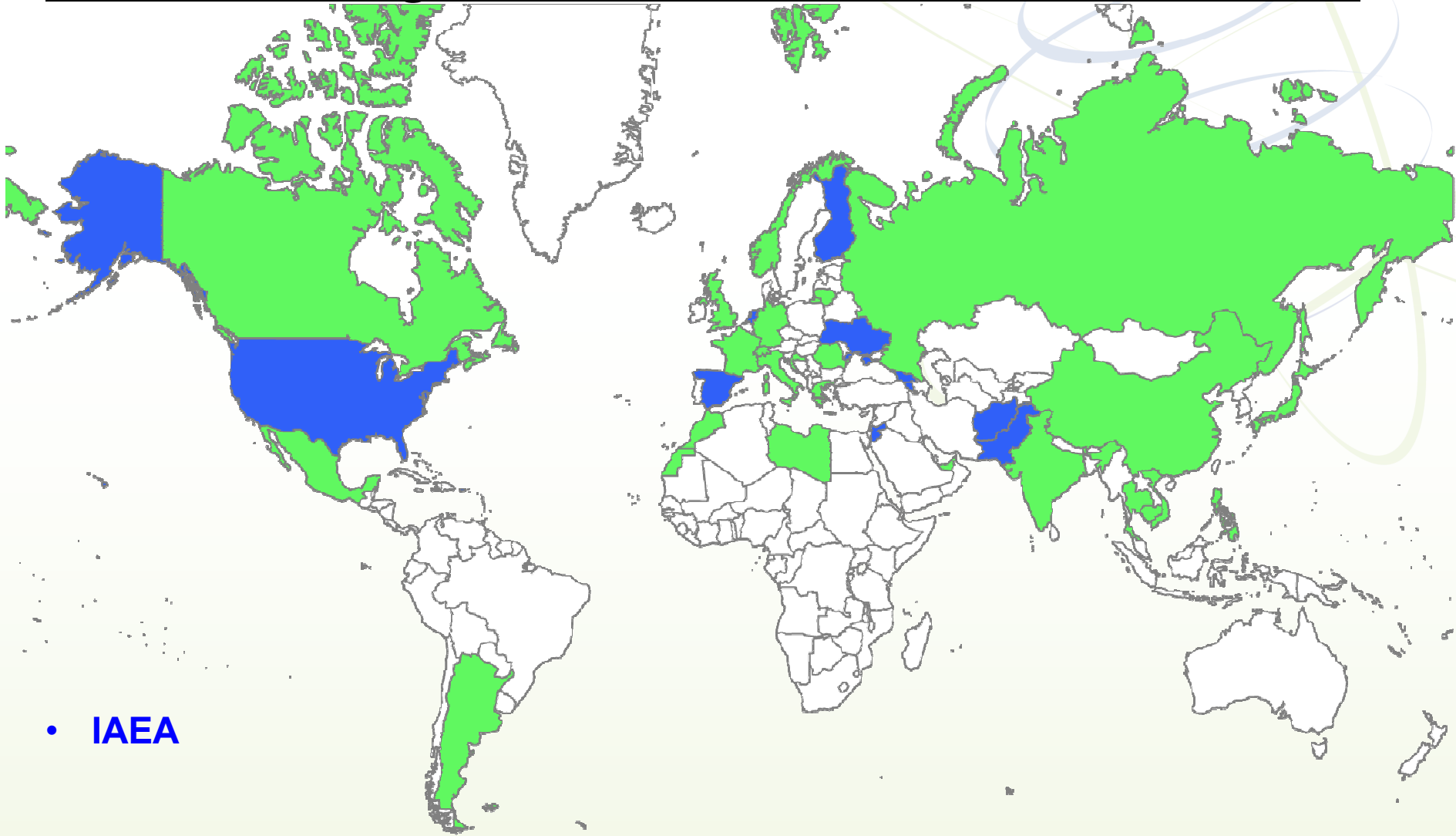
- IAEA

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- Workshop Participants
- Drafting Group Member

Contributing States to the P&O Document



• IAEA

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■ Workshop Participants

■ Drafting Group Member and/or case study presenter

Workshop Goals and Objectives

- Promote an internationally collaborative environment to:
 - Finalize the “Guidelines for Planning and Organization” document
 - Discuss technology and other facilitators to detection
 - Discuss key detection challenges
- Develop content for future guidelines document
- Identify subgroup of participants for “drafting group”
 - Drafting Group will provide more detailed content for the document draft
- Develop a 3-5 year NDWG activity roadmap

Keys to Workshop Success



- Engaging in discussion
 - Basis for the next Guidelines Document (Volume IV)
 - Content will be determined in a collaborative manner
- Offering lessons-learned, solutions, and best practices
- Volunteering for follow-on participation
 - Guidelines document “drafting group”
 - Case studies
 - Future workshop participation and/or speaking commitments



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