



Threat assessment and DBT for nuclear security in Finland: a risk-informed, cooperative approach

Paula Karhu/STUK/Nuclear Security
paula.karhu@stuk.fi

3rd International Regulator's Conference on Nuclear Security
Marrakech, 1 – 4 October 2019

[20191002 PKa]

Threat assessment

Responsible: Supo – the Finnish Security and Intelligence Service
[Nuclear Energy Decree, Section 146]

Participates:

- National Bureau of Investigation
- National Police Board
- Helsinki Police Department Special Operations Unit
- the Finnish Defence Forces
- the National Cyber Security Centre
- NFs' local Police Departments

DBT

Responsible: STUK – Radiation and Nuclear Safety Authority
[Nuclear Energy Decree, Section 146]

Comments requested from:

- Police Department of the Ministry of the Interior
- Nuclear Security Advisory Committee [Police Dept of Ministry of the Interior, National Police Board, NFs' local Police Depts, Ministry of Economic Affairs and Employment, Ministry of Defence, the Defence Forces, the Border Guard, Customs, Rescue Services]
- Nuclear Facilities

Threat assessment

- Wide range of threat characteristics
- Intrinsic uncertainties related to motivations and intentions in particular
- Continuous change and possibility of fast change ⇒ high uncertainties in the long time range
- Developments related to new technologies and cyber threat capabilities in particular

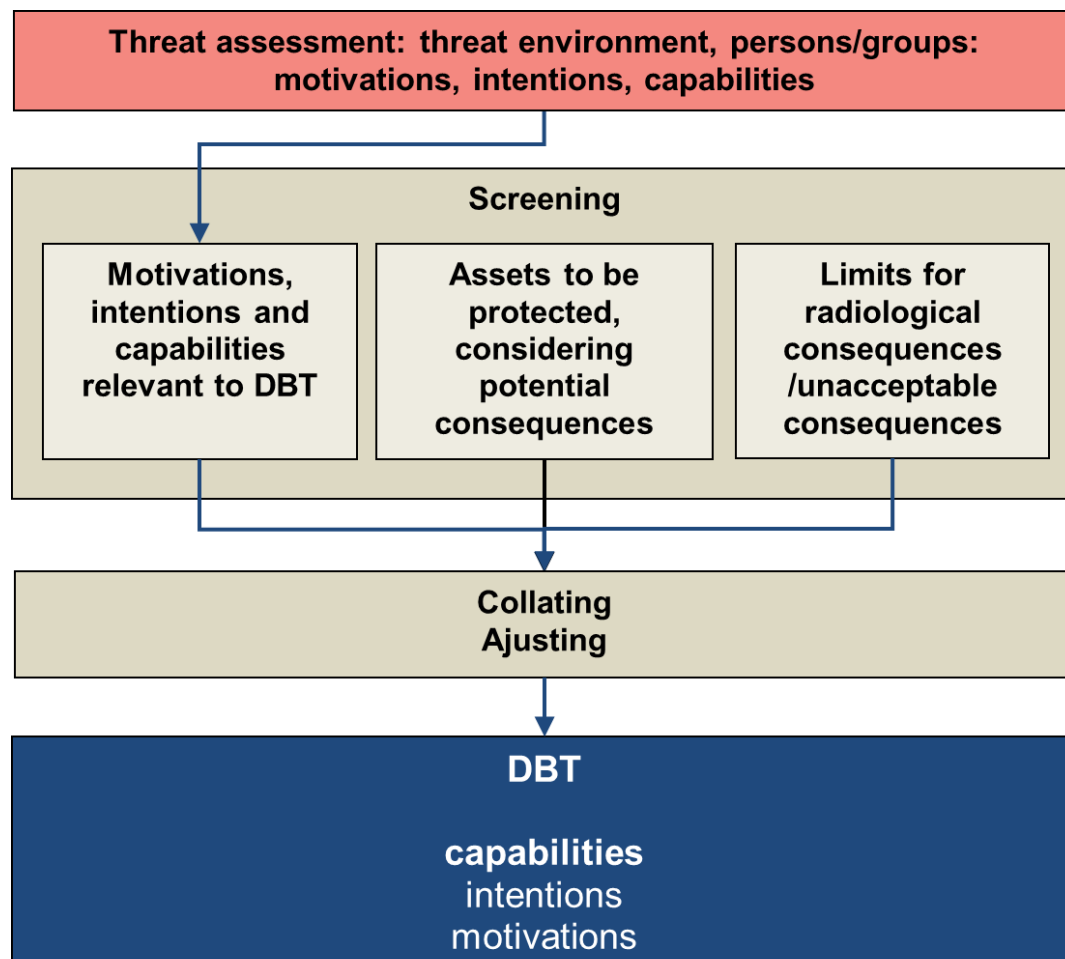
⇒ Need to maintain current situational awareness and act on it

DBT

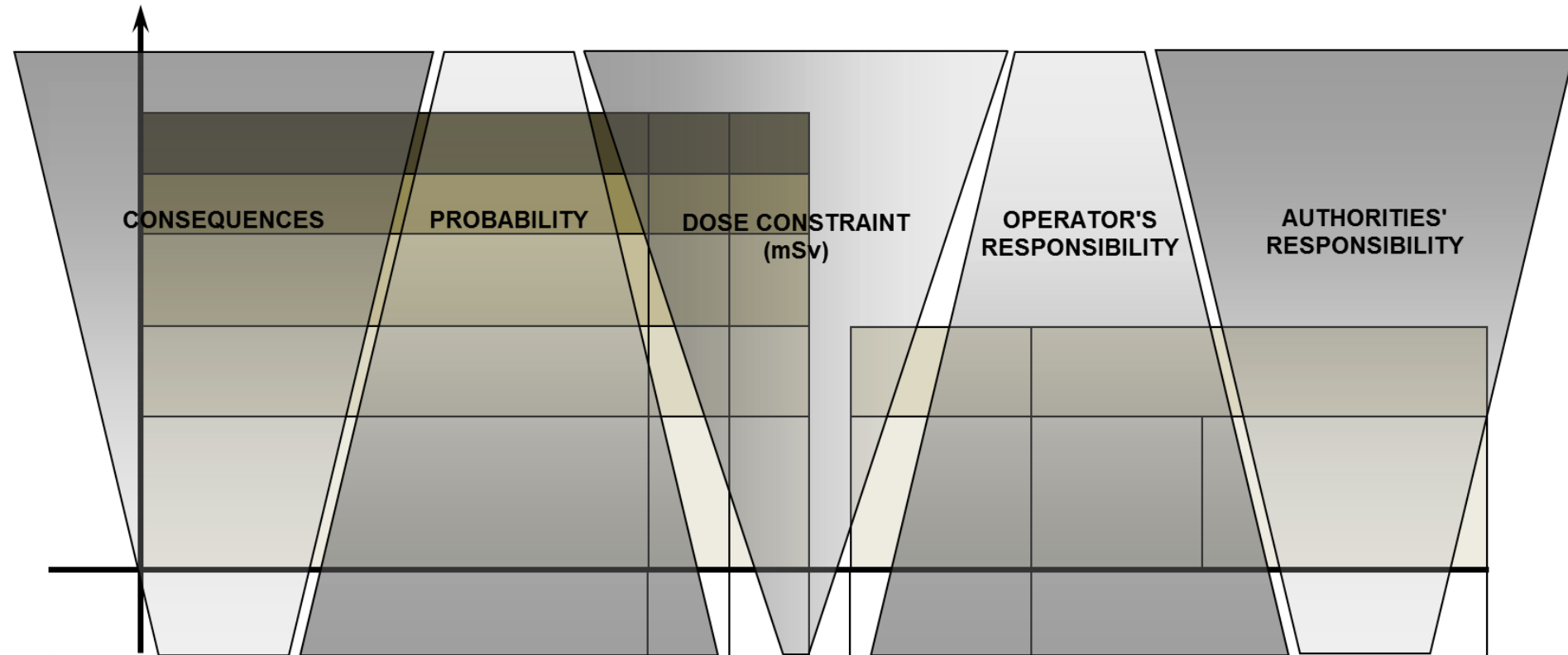
- Wide range of potential target characteristics ⇒ wide range of potential consequences
 - ⇒ No obvious one value for unacceptable radiological consequences
 - ⇒ Progressive levels of threat
 - ⇒ Application according to potential consequences
- Focus on adversary capabilities
- Needs to be relatively stable
- Updated as necessary

TA + decisions = DBT

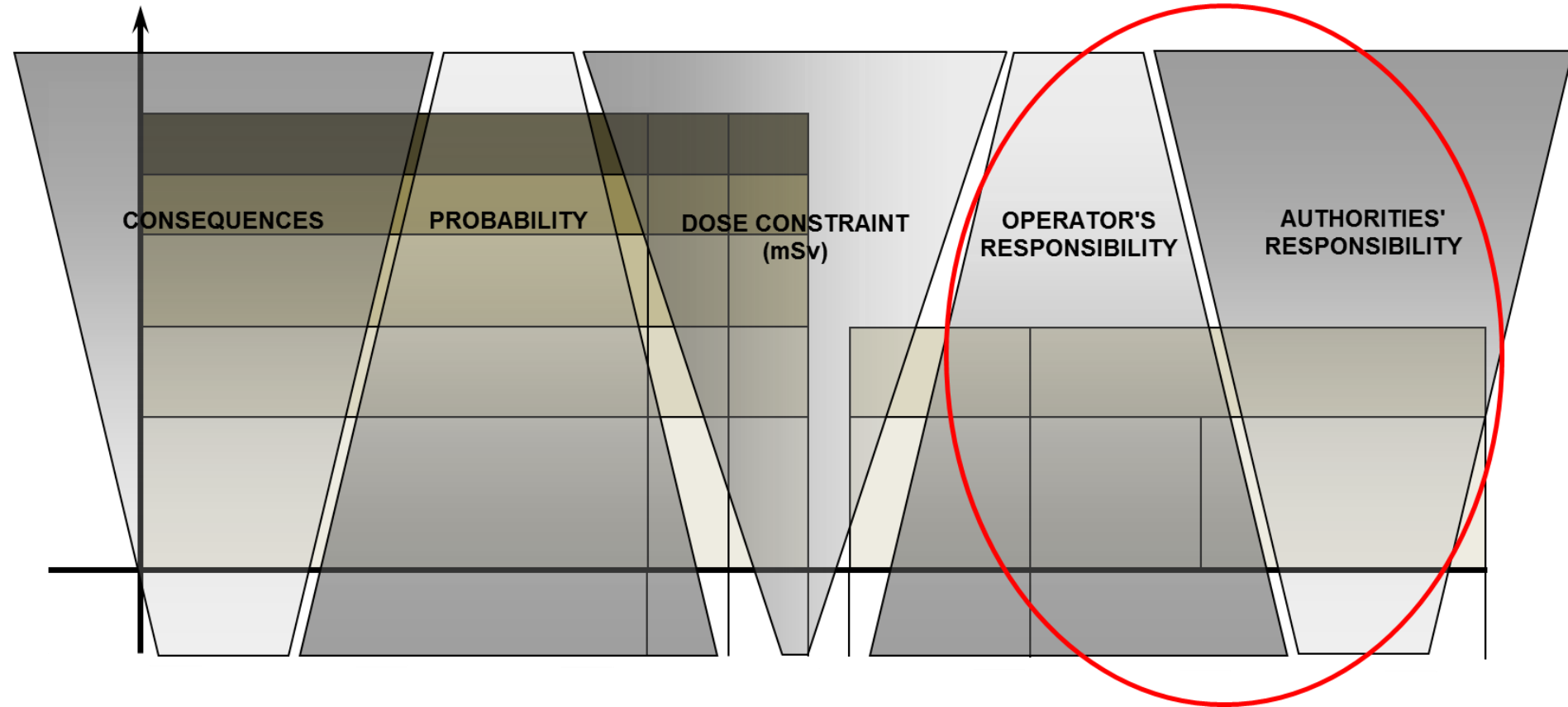
- To include or not and at which level?
 - Potential consequences
 - Level of difficulty for adversary: need for special expertise and/or equipment, cost, attack vector, outsider/insider
 - Feasibility of defence: can the operator protect against the threat capabilities in accordance with protection objectives for that level
 - For physical and cyber
- Inclusion ⇒ DBT
- Exclusion ⇒ beyond DBT



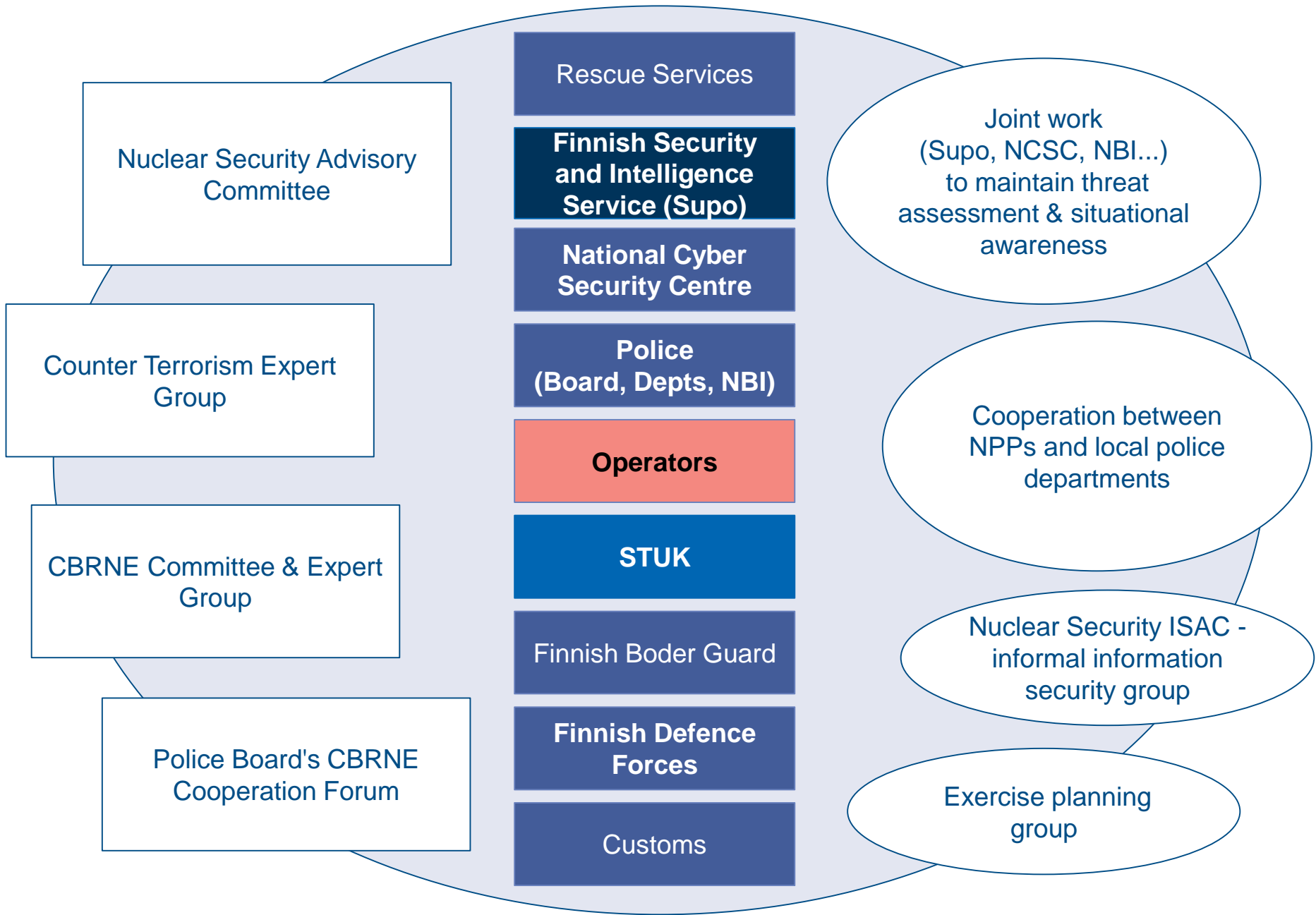
The idea of progressive levels in the DBT



The idea of progressive levels in the DBT



Still, cooperation all the way.



Nuclear Security Advisory Committee

Counter Terrorism Expert Group

CBRNE Committee & Expert Group

Police Board's CBRNE Cooperation Forum

Rescue Services

Finnish Security and Intelligence Service (Supo)

National Cyber Security Centre

Police (Board, Depts, NBI)

Operators

STUK

Finnish Border Guard

Finnish Defence Forces

Customs

Joint work (Supo, NCSC, NBI...) to maintain threat assessment & situational awareness

Cooperation between NPPs and local police departments

Nuclear Security ISAC - informal information security group

Exercise planning group

Thank you

