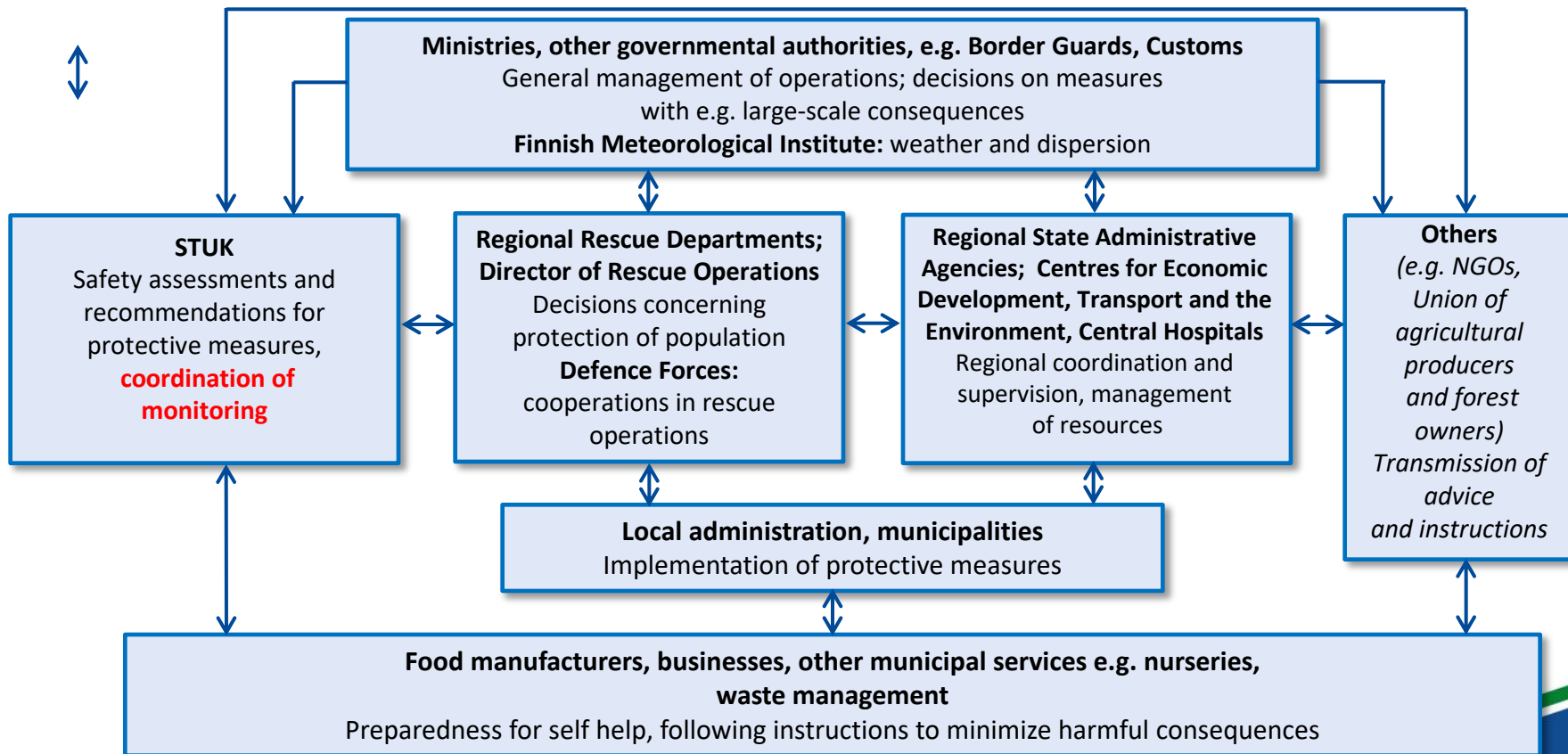


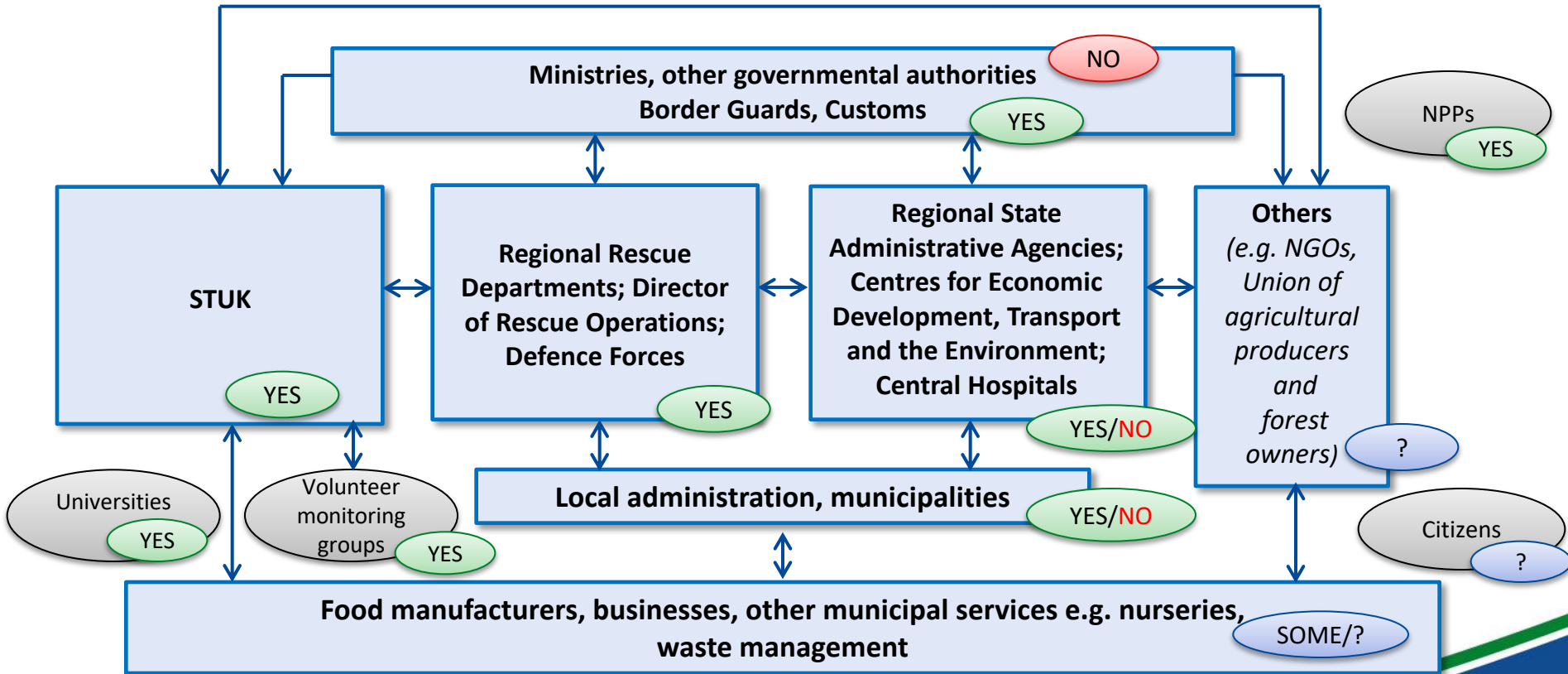
National Monitoring Strategy to Promote Efficient Response and Preparedness in Radiological Emergency in Finland – progress report

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Pia Vesterbacka
STUK- Finland

Responsibilities in large-scale radiation situations



Bodies with measuring capacity



In an emergency, information is needed to form and maintain an overview of the situation to determinate the right protective measures

- In a normal situation, monitoring is very well planned and carried out in Finland.
- In an emergency, the radiation situation can change quickly and its progress must be known all the time.
- Both direct and indirect inadvertent effects must be mitigated or at least minimized.
- The vital functions of the society must be secured during and after an emergency.

All kinds of radiation situations: various accidents, nuclear explosions and illegal acts to be managed.

Measurements must be planned and prioritized to ensure radiation safety of people and environment

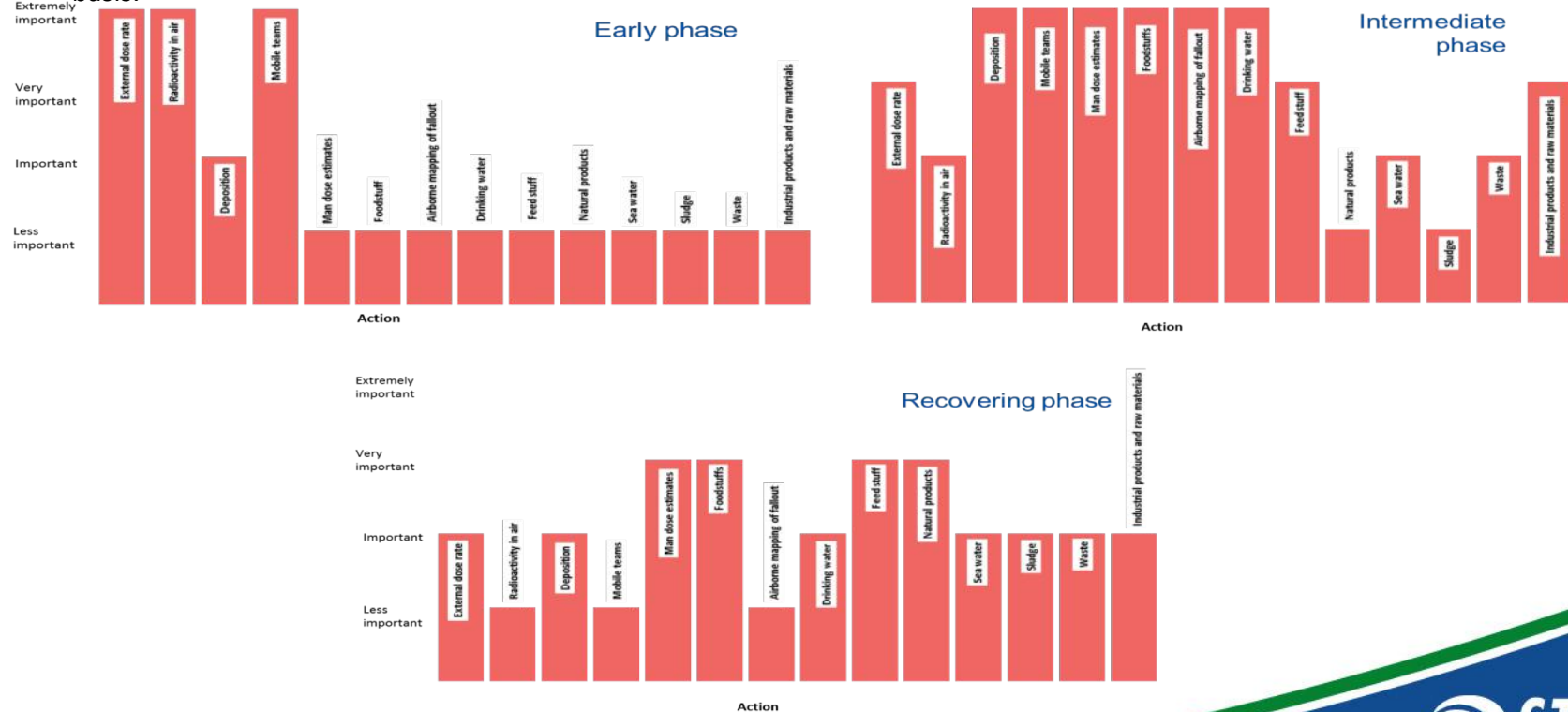
Overall prioritization (suggested by STUK)

- The most exposed people (NB children and pregnant women)
 - considering the total number of exposed people and the most exposed individuals
- Objects that cause the major exposure
 - taking into account the possible enrichment of radionuclides
- Areas which are affected by radioactivity and may require implementation of countermeasures
 - boundaries of these areas
- During the early and intermediate phases focused on those areas where people actually are and/or where there is extensive daily foodstuff production
 - not in the evacuated areas or in banned areas

Measurement prioritization varies:

An example NPP accident and nuclear explosion

The importance of a specific measurement depends always on the situation and must be determined on case-by-case basis.



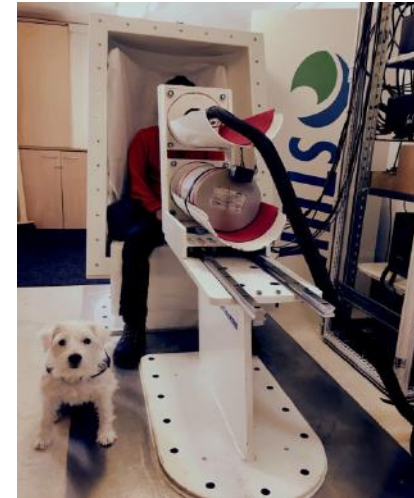
National monitoring strategy working group set by Ministry of the Interior

Main tasks (Commision order) => Society is resilient to all kind of disturbances

- Identification of
 - bodies taking radiation measurements icluding cooperation and flow of information between different bodies
 - all the measuring capacity in Finland
 - possibilities to get international measuring help and how to adjust it with national monitoring activities
- Plan of arrangements for monitoring of people
- Plan of functioning of all the laboratory network performing various kinds of measurements
- Estimation of costs for maintenance of measuring capacity, know-how and its developing

The main strategy group is coordinates the whole work and the results of subgroups

- **The main strategy group** (Ministry of the Interior, Ministry of the Social Affairs and Health, STUK, Rescue Department)
- Six subgroups
 - 1. Survey of capacity, know-how and training, and the goal**
 - **STUK**, National Emergency Supply Agency, Rescue Department, Ministry of the Interior, Defence Forces, Police, representative of hospital physicists, Technical Research Centre of Finland, representative of a municipality
 - 2. Monitoring of people**
 - **STUK**, Defence Forces, Ministry of the Social Affairs and Health, representative of hospital physicists, Rescue Department, public health service of a big city



Subgroups - continues

3. **Monitoring of environment** (external radiation, air, fallout, indoor areas)
 - **STUK**, Association of Finnish Local and Regional Authorities, Defence Forces, Rescue Department, Meteorological Institute, National Supervisory Authority for Welfare and Health, Ministry of the Social Affairs and Health, Meteorological Institute, representative of a municipality
4. **Foodstuffs, drinking water, feed**
 - **Finnish Food Safety Authority**, National Supervisory Authority for Welfare and Health, Ministry of Agriculture and Forestry, STUK, Association of Water Works, National Emergency Supply Agency, Ministry of the Social Affairs and Health, Meteorological Institute, representative of a municipality



Subgroups - continues

5. Contaminated goods and vehicles, certificates of exporting goods

- **STUK**, Customs, Finnish Transport Agency, Ministry of Transport and Communication, Finnish Transport Safety Agency, Border Guards, Ministry of Economic Affairs and Employment, Finnish Food Safety Authority

6. Waste

- **Ministry of the Social Affairs and Health**, Ministry of the Environment, STUK, representative of a municipality, National Supervisory Authority for Welfare and Health, City of Helsinki, Association of Finnish Waste Disposal Plants, Ministry of Agriculture and Forestry



Questions to be answered in all groups

- Who is responsible for monitoring?
- Who will do the measurements and by which equipment?
- General prioritization of measurements?
- **How to arrange monitoring in practice ?**
 - E.g. monitoring of a large amount of people: places, cleaning, logistics... estimation of doses
 - E.g. monitoring of foodstuffs and the environment: sampling, logistics, in situ or in lab...
- Human resources and equipment capacity, the needs for help?
- Training and competence of actors?
- Quality assurance of measuring data?
- Sending, storage and use of data? Common database?
- Any gaps? What is missing?
- Communication and follow-up?



National Monitoring Strategy to be ready in 2019



Thank you for your attention!

