Workshop on disaster risk reduction

Expert institutions as active part of the crisis management structure

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project leader/coordinator CBRN-response
National Institute for Public Health and the Environment - RIVM

RIVM works towards a healthy population in a sustainable, safe and healthy living environment

- Unique combination of public health and environment
- Unique combination of C, B and RN expertise
RIVM – Environmental Incident Service

› Is activated in case of
  - Environmental incidents
  - CBRN incidents (intentional)

› 24/7 response
RIVM – Environmental Incident Service

- ~150 persons in 15 different roles
- General coordinator / investigation leader
- Field sampling- and research leader
- Reconnaissance and sampling experts (incl. type A gas tight suit)
- Chemical, biological and radiological researchers (incl. mobile labs)
- Toxicologists/medical doctors
- Dispersion modelling
- Experts on radiation, drinking water, etc.
- (Psychosocial) Aftercare
Detection (field)
Localization and detection of the presence of a chemical agent

Identification ((mobile) laboratory)
Precise and quantitative assessment of which agent is present
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CBRN-incidents (intentional)

› Essential in the response, regarding CBRN incidents, is the unambiguous identification and validation of the CBRN agents.

› 24/7 available mobile front office with fully equipped chemical and biological (BSL-3) laboratory.
National crisis management

› In large (regional or national) incidents ONE institute is not enough
  - Limitations in measurement and/or analysis capacities
  - Different areas of expertise needed

› Expand laboratory and capacities of 1 national institute?
  - Expensive
  - State-of-the art in all different areas of expertise?
National crisis management

› Use expertise of already existing national institutes/companies!
  - Wide range of expertise
  - State of the art
  - Integrated advise
Crisis and Expert team: Environment and Drinking water

- Type of institutes:
  - RIVM
Crisis and Expert team: Environment and Drinking water

- Type of institutes:
  - RIVM
  - KNMI
Crisis and Expert team: Environment and Drinking water

› Type of institutes:
  – RIVM
  – KNMI
  – Ministry of Defence
Crisis and Expert team: Environment and Drinking water

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  - NVIC
Crisis and Expert team: Environment and Drinking water

- Type of institutes:
  - RIVM
  - KNMI
  - Ministry of Defence
  - KWR
  - NVIC
  - RWS/WMCN
Crisis and Expert team: Environment and Drinking water

- Type of institutes:
  - RIVM
  - KNMI
  - Ministry of Defence
  - KWR
  - NVIC
  - RWS/WMCN
  - DCMR/LIOGS
Crisis and Expert team: Environment and Drinking water

› Type of institutes:
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  - DCMR/LIOGS
  - WFSR
Operational expertise
24/7

› Field sampling and measurement strategies
› CBRN-analyses
› Exposure and risk assessment for human and environment
› Scenarios and dispersion model predictions
› Toxicological and decontamination information
› Meteorological information
› Food safety
› Incident management

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Structure and Governance

Cooperator

Chair & process manager CETmd

8 national institutes or companies

integrated advice

Local Authority
Regional Authority
National Authority

Drinking water supply

Source: CET

Share information via digital platform

direct communication possible

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Structure and Governance

› National coordination and financing structure
  – Steering committee
  – Bilateral or multilateral agreements with the institutes
  – Expert group
  – Secretariat

› Similar structure for other Crisis and Expert teams
The Crisis and Expert team: Radiation and Nuclear

Front-office:
Gives advice on radiological situation to decision makers (national and regional).

Back-office:
Reports to and gives advice to Front-office on radiological and health consequences of nuclear or radiation accidents.
The Crisis and Expert team: Radiation and Nuclear

- **Installation**
  - Authority for Nuclear Safety and Radiation Protection (ANVS)

- **Source term**
  - Ministry of Defense/Expertise Center for Work & health (MoD/CEAG)

- **Monitoring**
  - Royal Netherlands Meteorological Institute (KNMI)

- **Meteorology**
  - National Institute for Public Health and the Environment (RIVM)

- **Atmospheric dispersion and environment**
  - Wageningen Food Safety Research (WFSR)

- **Food and feedstuffs**
  - Ministry of Infrastructure and Watermanagement (RWS)

- **Surface water**
  - KWR Water Research (KWR)

- **Drinking water**
  - National Poisoning Information Center (NVIC)
National Laboratory Network
Terrorism Incidents

› Network of national laboratories with a diversity of specialised expertise in the field of CBRN analysis
  - Provide the authorities with quick and accurate analytical data in case of (suspected) terroristic incidents

› 24/7 available mobile front office with fully equipped chemical and biological (BSL-3) laboratory
  - High risk pathogens
  - Chemical warfare agents
  - Radiation
National Laboratory Network
Terrorism Incidents

- Other specializes laboratories are activated in case of
  - Positive control needed
  - Suspected chemical warfare agents
  - Scarcity in analytical capacity due to major incident
  - Negative control needed
Critical success factors

› National process coordination

› Highly motivated personnel, excellent in own field of expertise

› Continuous training and exercises are crucial
  – Procedures
  – Knowing the people, network maintenance