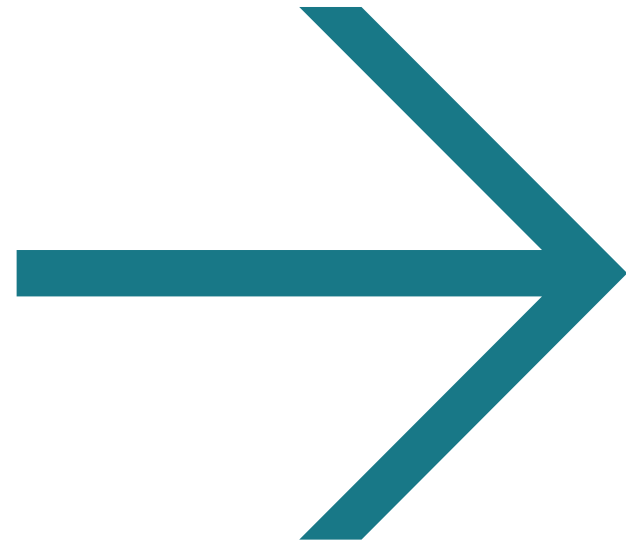


# National Nuclear Emergency Plan of The Netherlands (“NPK”)

## Response and Assistance

**Freek Aldenkamp**  
RIVM/LSO

**Wim Molhoek**  
VROM/VI/CM





# Content

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- **Introduction**
- **NL-Nuclear Emergency Management and Response**
- **International assistance**
- **Future developments**

# Roles and Responsibilities NL

## Category A

- nuclear (power) reactors,
- nuclear powered ships,
- satellites, air transportation etc.

**National**

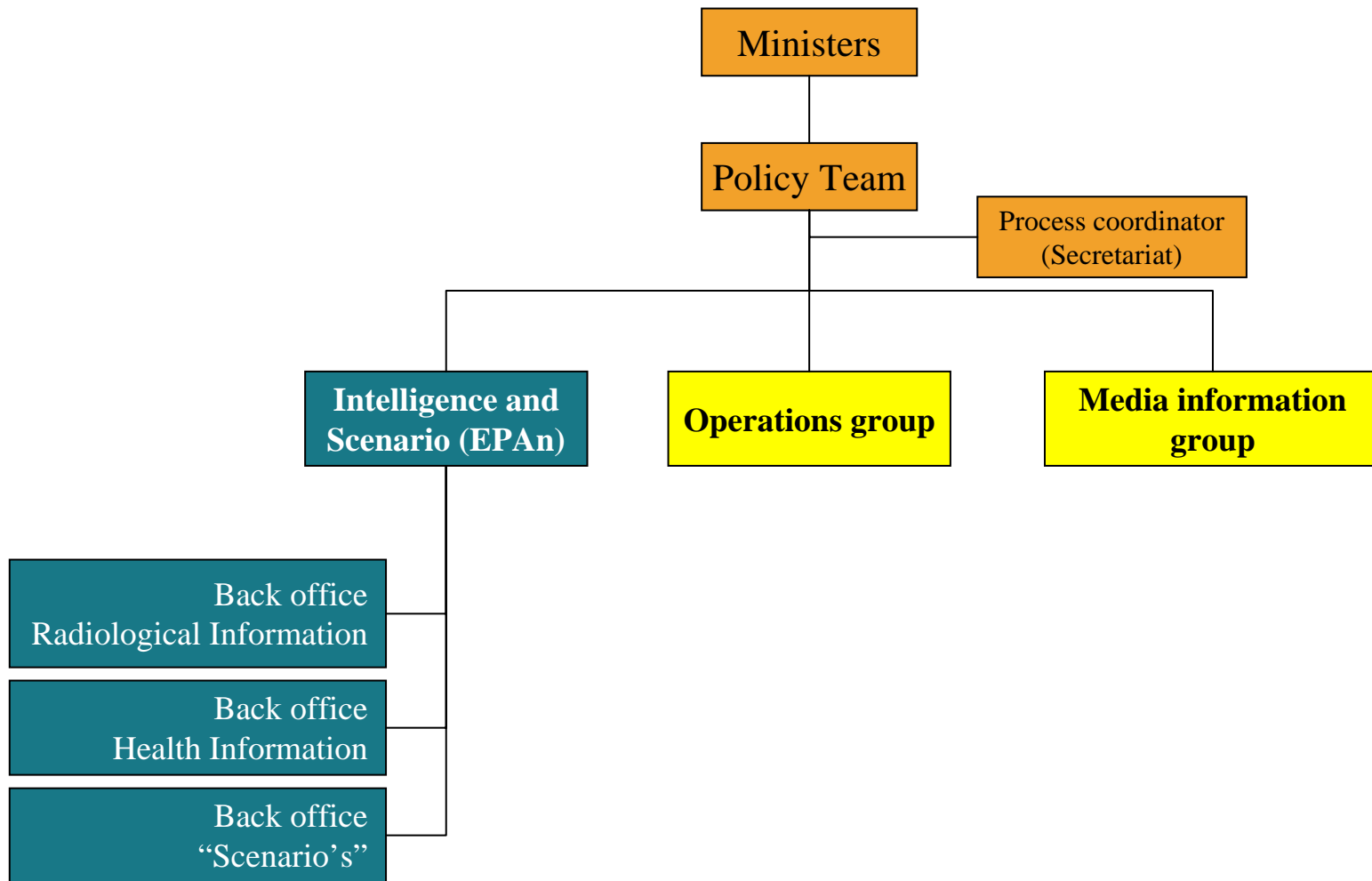
## Category B

- other transportation,
- laboratory,
- uranium enrichment,
- RA-waste storage, etc.

**Regional / Local**



# National NPK Response Structure Cat. A



# VR0M- national Nuclear Assessment Team (EPA-n)



## Policy Team

Secretariat NCC

### EPA-n Front Office

NCC, DCC's  
Risk & Crisis  
Communication  
International etc.

Back Office  
Medical &  
Health  
(VWS)

Back Office  
Radiological  
Information  
(RIVM)

Back Office  
"Society  
Impact"  
(BZK)

SC

SC

SC

EPA-n



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EPA-n

# ➔ Back-Office Medical and Health Information

## Incident related activities

- Medical advice regarding 'Iodine prophylaxis', 'Evacuation' and 'Sheltering'
- Advice on decontamination and patient management
- Risk assessment on number and severity of casualties
- Advice on longer term health impact



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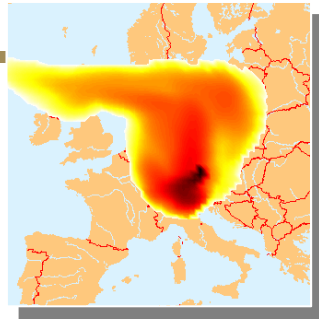
SC

EPA-n

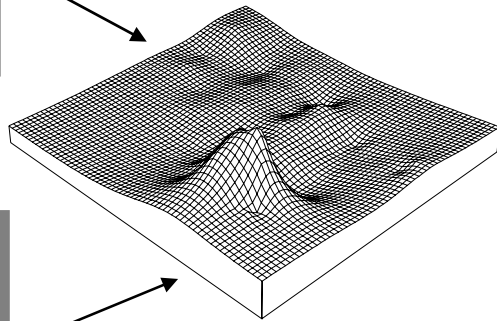




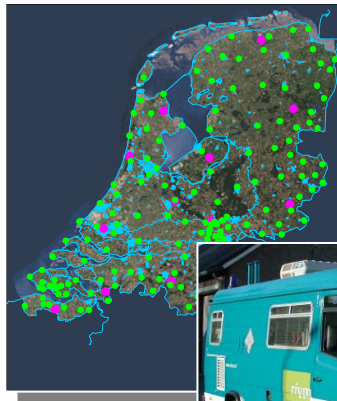
# Back-Office Radiological Information



Modeling



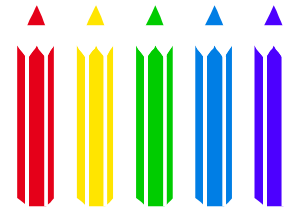
Monitoring



Dose-rates



Radiological Assessment



Intervention Levels





# Back-Office Radiological Information



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SC

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EPA-n





# Back-Office Scenario's ("Society Impact")

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## Participation

- VROM (Environment), VWS (Health), BZK (Public Order and Safety), LNV (Agriculture), RIVM (Health and Environment)

## Responsibilities

- Evaluation of the accident-response
- Evaluation of unforeseen events in general
- "What If" scenario's including probabilities
- Assistance preparing briefings for the Front-Office



# International Assistance

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**VRROM-policy: YES; but WHAT and HOW??**

**Preferred scope: Bi-Lateral**

## **What**

1. Harmonization of planning, zoning; intervention levels etc.
2. Technical/operational support
3. Shared provisions
4. Exchange of accident information and monitoring data



# International Assistance

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## Challenges

- Non-harmonization e.g. Iodine Prophylaxes
- Language
- Culture
- Many parties involved
- Complicated response-structures
- EU versus IAEA versus bi-lateral
- Legal constraints
- Time-consuming preparation



# International Assistance

## How

- Shared, documented visions of Nuclear Emergency Management and Response
- Identification of common interests
- Structural approach for specific topics (expert-groups)
- Reliability/sustainability: formal agreements
- Effective bi-lateral Working Groups:
  - Nuclear Emergency management
  - Technical aspects of installations etc.
  - Expert groups



# International Assistance

## NL/Germany

- Real-time exchange of monitoring data/modeling results
- Joint exercises (or observers-exchange)

## NL/Belgium

- Exchange of NPP standard source term information
- Joint exercises (or observer exchange)
- Cooperation updating regional Nuclear Response Plans

## NL/Baltic Sea States (CBSS)

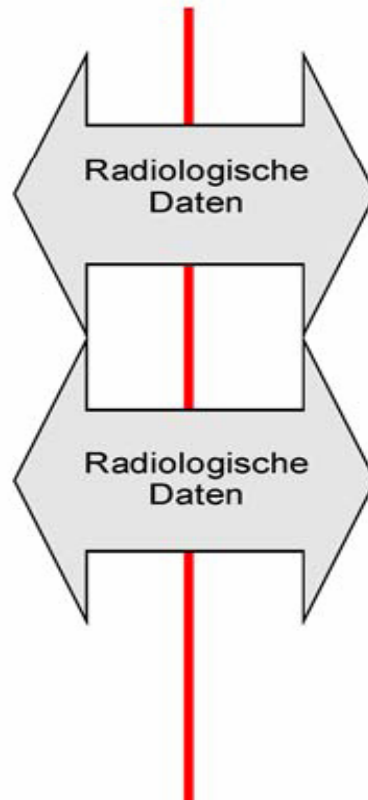
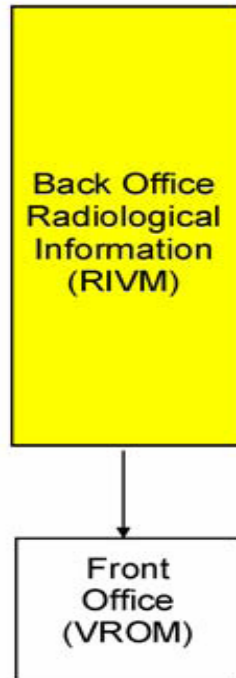
- Real-time exchange of monitoring data (in progress!)



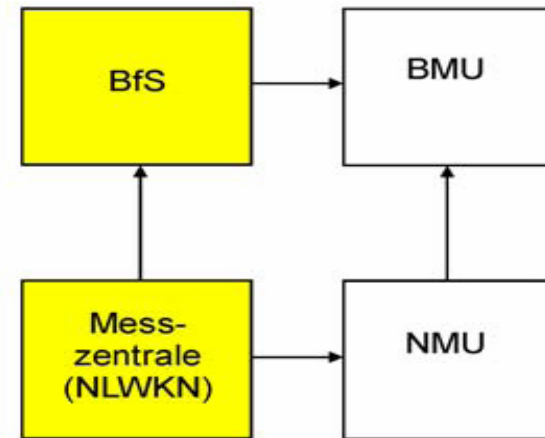
# Information exchange NL/Germany

## Austausch von Daten

### Niederlande



### Deutschland





# International Assistance

## EU

- ECURIE
- EURDEP
- ENSEMBLE (MoU)
- EURANOS RTD and demonstration projects (e.g. MODEM)
- RODOS, ARGOS DSS evaluation
- Optimizations and mapping of monitoring networks
- User groups on DSS and countermeasure issues/elicitation of stakeholder feedback

## IAEA/Wg. A (International Information)

- Format for International Information Exchange



## Examples for future developments

- Bi-lateral agreement NL/UK
- BENELUX-agreement
- Shared mobile monitoring capacity (monitoring vans etc.)
- Shared air monitoring capabilities (Airplanes/helicopter)
- Shared response-capabilities (expert-exchange, liaisons)
- Joint exercises and workshops
- Joint decision support and data exchange technologies



# Any Questions ?

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