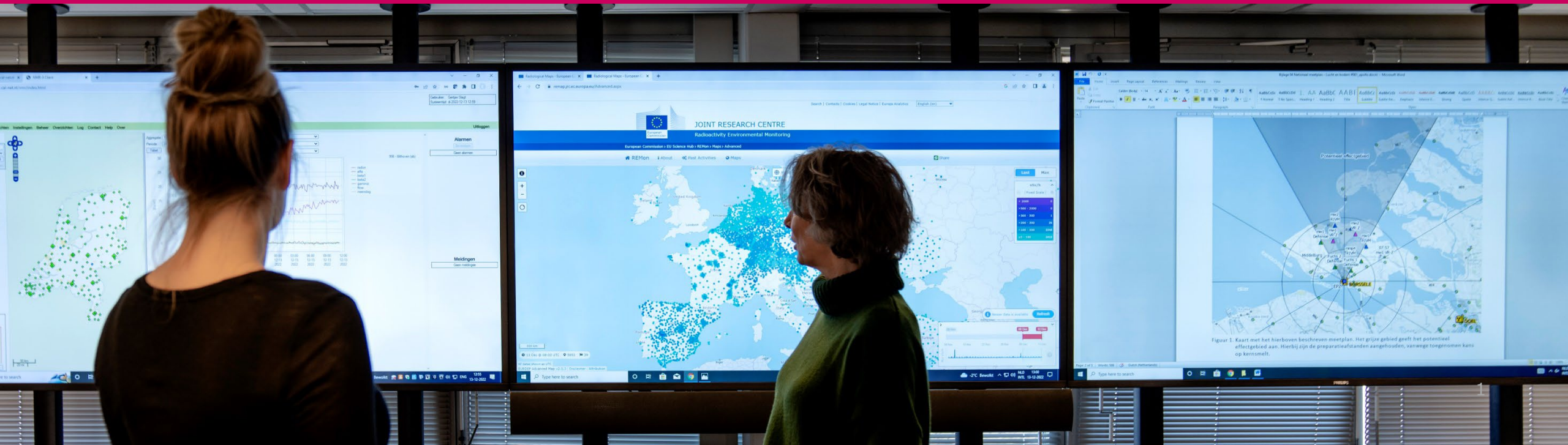




National Institute for Public Health  
and the Environment  
*Ministry of Health, Welfare and Sport*

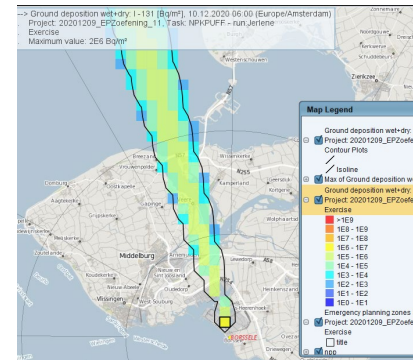
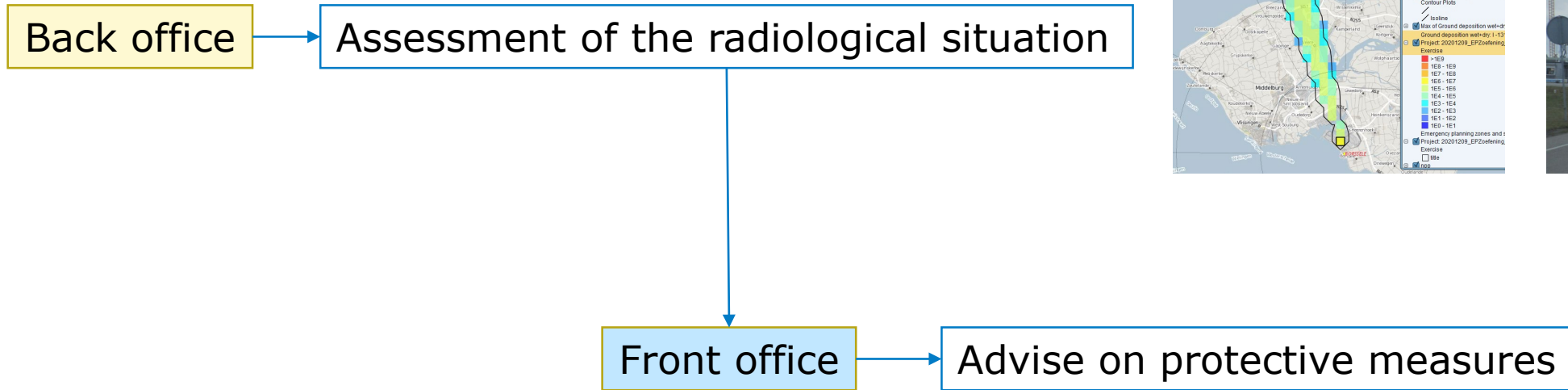
# Realistic training and practice for radiological emergency preparedness and response in The Netherlands

Teetske van Gorcum, Jasper Tomas, Peter den Outer  
June 29, 2023





# Crisis Expert Team radiation and nuclear





# Back office



**RIVM: National Institute of Public Health and Environment**



Authority for Nuclear Safety and Radiation Protection – Task force



Royal Netherlands Meteorological Institute



KWR Water Research Institute



Rijkswaterstaat



National Poisons Information Centre



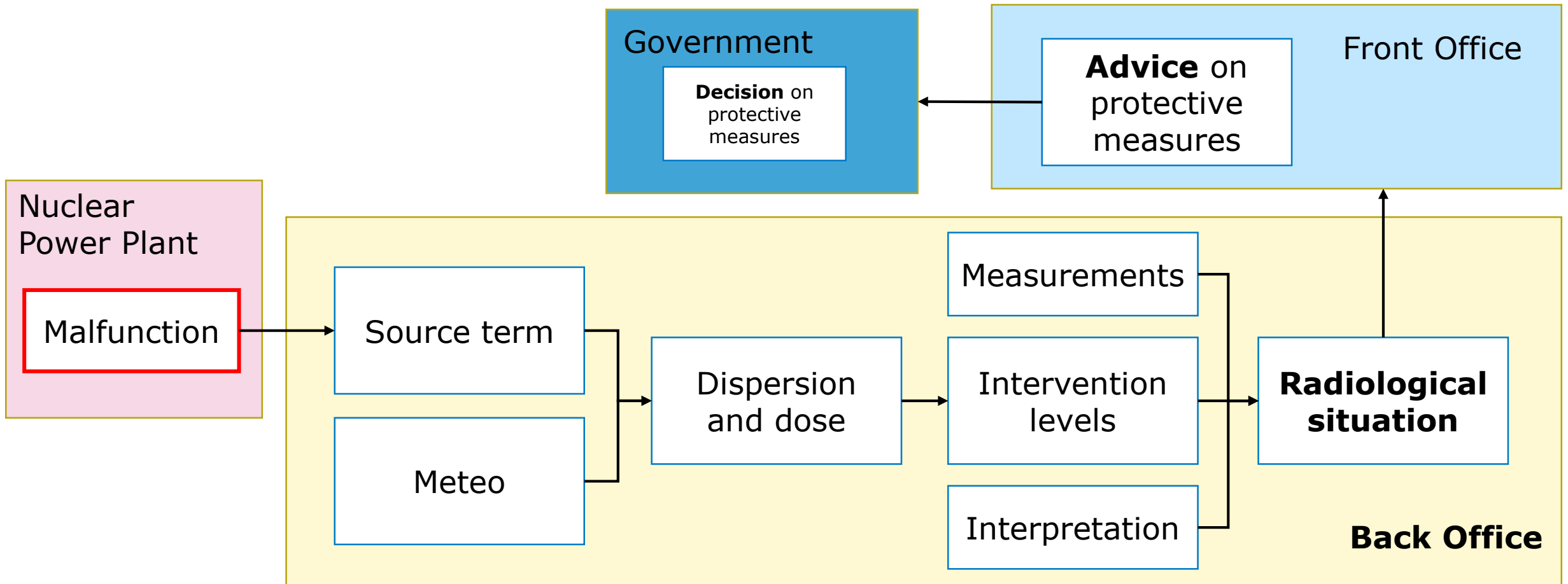
Wageningen Food Safety Institute



Ministry of Defence



# Processes





# Training and exercise

- Tasks in EP&R are not part of daily work
- Incidents are rare



Realistic training and exercise is important



- Design
- Tools

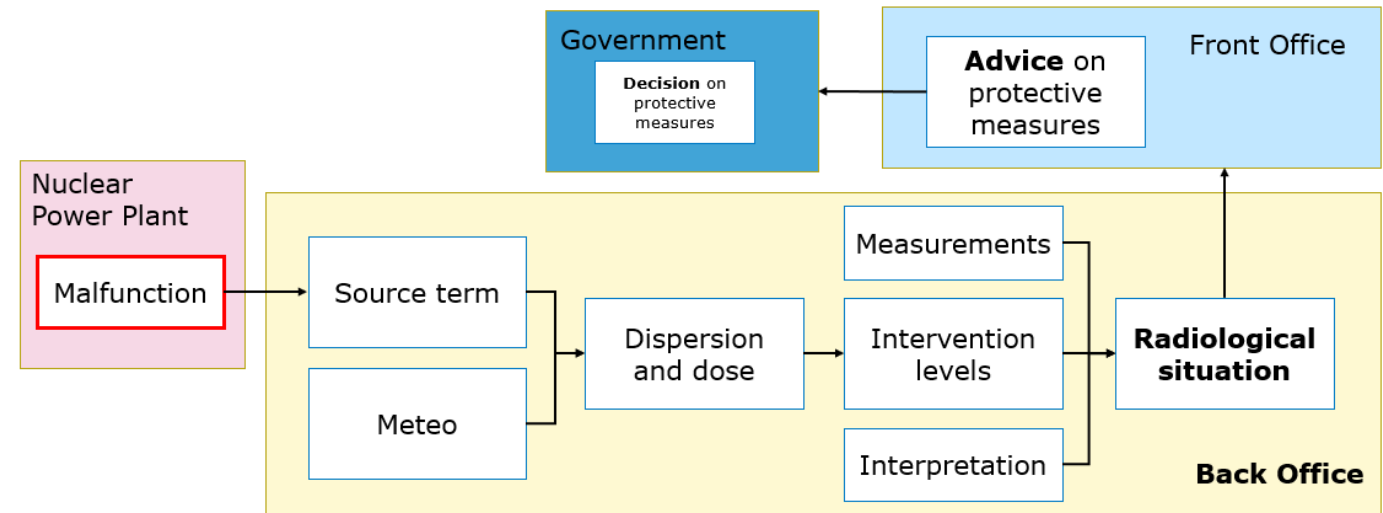




# How do we design an exercise?



- Unforeseen actions of participants





# Creating realistic circumstances

- Intervention
- Major Event List
- Injects
- Response group
- Exercise tools

>> Realistic

Major Event List

Time	Event	Participant
08:00	Malfunction NPP	-
08:xx	Notification to national Authority	NPP operator
08:xx	First NPP report	NPP > CET
08:xx	Activation of Crisis Expert Team	Back office and Front office
09:xx	First report on technical assessment	Back office
09:xx	First dispersion assesment	Back office
...	...	...



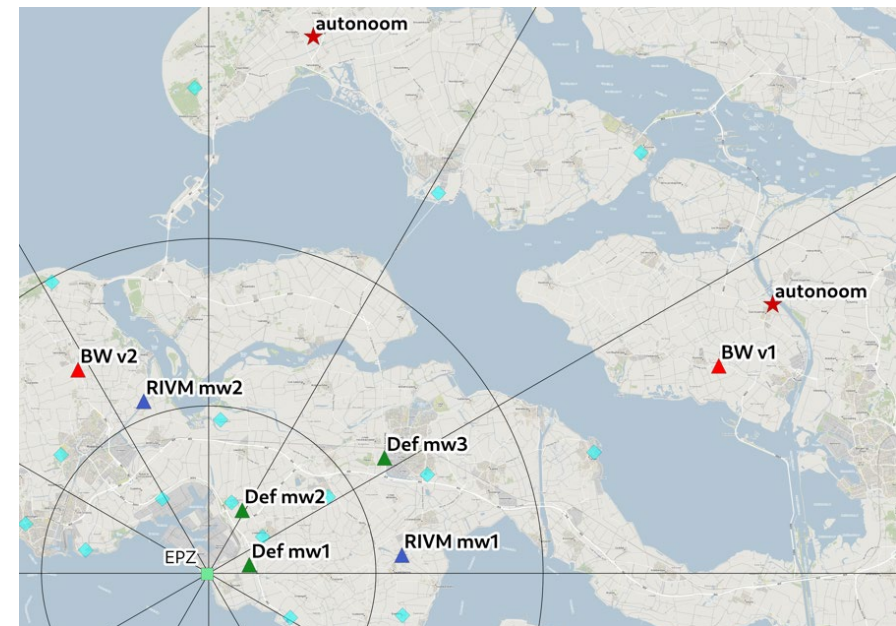
# Exercise tool RODIN

- RODIN = Real time Online Detector simulator In Nuclear exercises

Brandweer - MeetploegGoes

Locatie: Latitude/Longitude: 51.356 , 3.688  
Rijksdriehoekskoördinaten (x,y): 36647 , 375466

**Actueel gammadosistempo** 1.9914e+7 (nSv/h) 03-05-2023 17:16







# Exercise tool RODIN

			Measurement vehicles		Fire brigades	Food Safety institute	Rijkswaterstaat and drinking water laboratories	Other measuring partners (WVI's)
			RIVM	Ministry of Defense				
Gamma dose rate		nSv/h	✓	✓	✓			
Air	Noble gas	Bq/m <sup>3</sup>	✓					
	Air dust	Bq/m <sup>3</sup>	✓	✓				✓
Deposition	Grass and soil	Bq/m <sup>2</sup>	✓			✓		
	Crops/food/etc.	Bq/kg				✓		
	Water*	Bq/l					✓	✓



National Institute for Public Health  
and the Environment  
*Ministry of Health, Welfare and Sport*

Thank you!

Contact: [Teetske.van.Gorcum@rivm.nl](mailto:Teetske.van.Gorcum@rivm.nl)

