



**Scaling training infrastructure** to enable all security stakeholders to plug in for observation and testing in highly realistic large scale multidisciplinary simulations.



Yves D'Eer – @yvesdeer



Tim Van Achte – @timvanachte

# Emergency Management Training & Education

An international institution for education and research for all actors dealing with public safety and emergency management.

# Emergency Management Knowledge Center

An international knowledge center for local police, fire departments, emergency planning and coordination officials, private companies and public bodies dealing with public safety and security.

# Multidisciplinary Testing & Exercise Infrastructure

A former British military base near Antwerp, Belgium, boasting approx. 50ha of general and highly specialised training facilities.





A **huge domain** of over 50ha  
Suitable to facilitate nearly every  
scenario training imaginable,  
from small to large scale.

A **unique knowledge center** including  
our Postgraduate Disaster Management  
programme, held since 13 years in  
partnership with University of Antwerp.



Backdraft & flash-over fire training



Industrial fire fighting



Heavy chemicals road transport



Heavy industry scene for fire fighting

Medical training



Red Cross Antwerp logistics hub



Police basic training and specialisms



Shooting range

Airplane (eg. crashed airplane)



Railway carriage



Drug labs (dismantle, booby traps, dogs)



Warehouses

Training village with hospital + 3 storey apartment apartment building with underground parking lot



Hospital wing

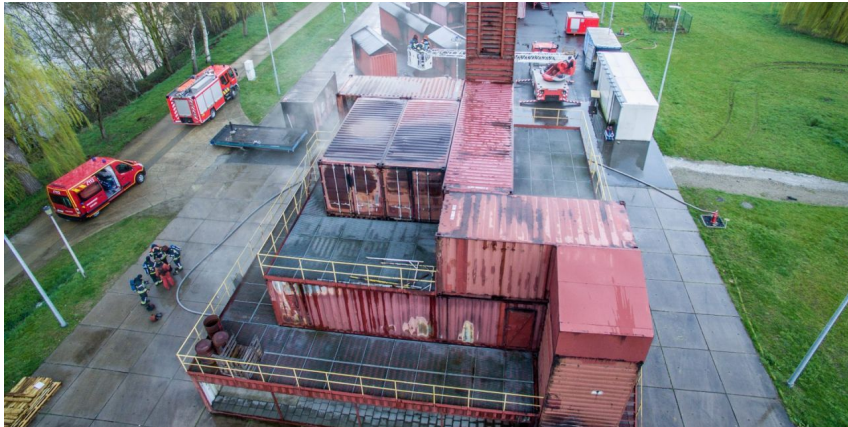


Highway, 100m 2x2 lanes (car pile-ups, collisions)

Decontamination village (CBRN - training)



Earthquakes/explosions (search and rescue)



Ship & hotel (container setup)



Role play rooms with sky bridge



## Multidisciplinary field exercises



## Multidisciplinary, situational awareness

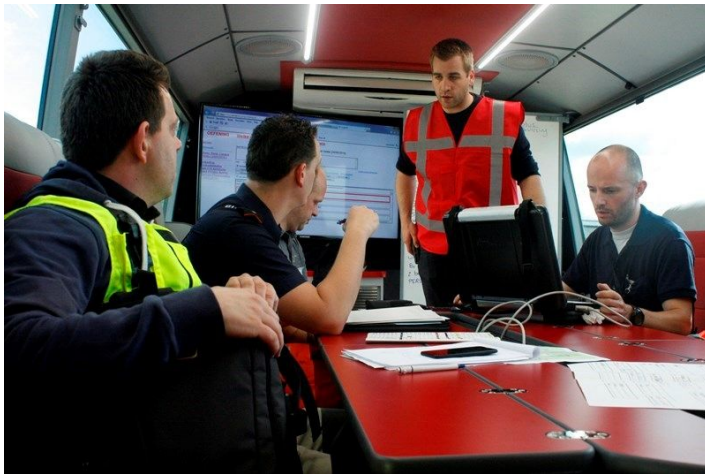


Coordination, information management, decision making, crisis intelligence



Large trained volunteer community for roleplaying

Burning Man of EM: yearly multidisciplinary field exercise with average of 400 participants - 160 simulants

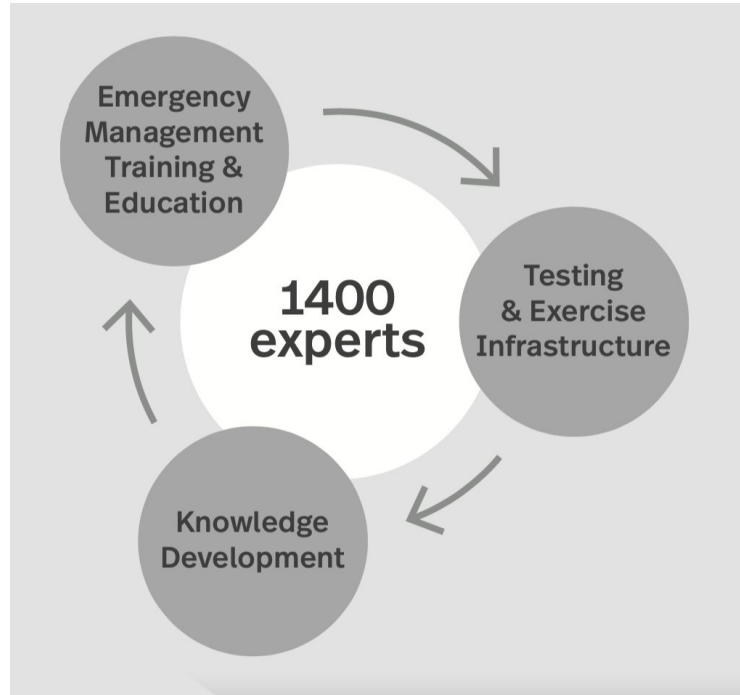




25 classrooms, 4 computer rooms, congress rooms, talks, conferences, alumni events, joint international field exercises, EU research team, ...



Our 1400 experts from different disciplines ensure highly-qualitative training, both in theory and practice



CAMPUS  
VESTA



Lectures by experts



Hands on training



Field trips



Training  
Reflection  
Innovation



# Postgraduate Disaster Management Programme a multidisciplinary community of practice

Research – Knowledge creation



Alumni  
events



Our field exercises, training and research activities are enriched with:

- **Social media**
- **Crowdsourcing, volunteering**
- **Cybercrime**
- **New technology (VR/AR)**

(Taking emergency management beyond the physical world, into cyberspace)

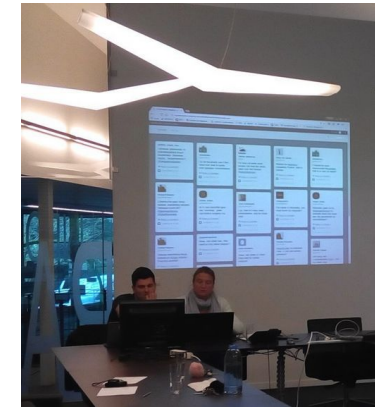
Hands on with social media tools & platforms



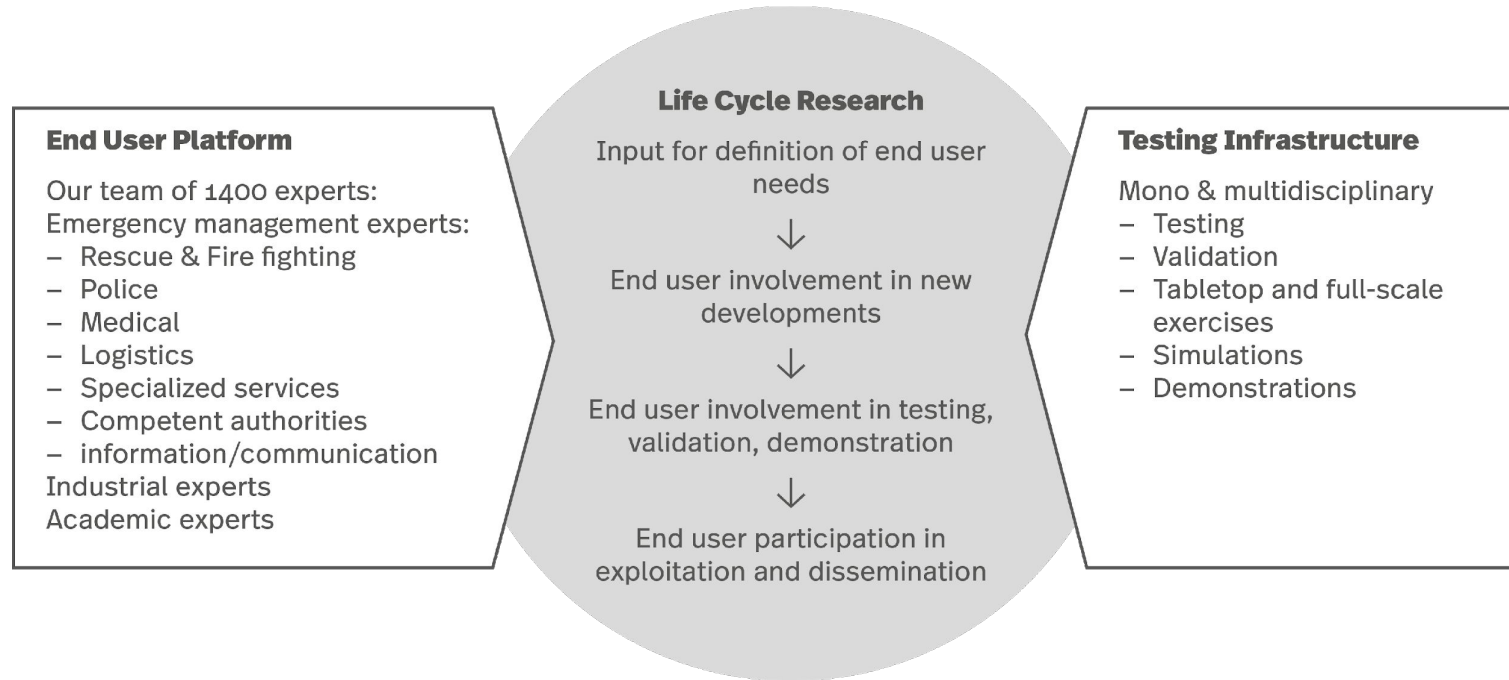
Virtual Reality training



Realistic social media simulation feeds (CIP Simulator)



# The Training Center as an intermediary between practitioners and R&D



TeamD5 – the **crisis communication volunteer team** for local authorities in Belgium.  
 We frequently plug in @ Campus Vesta to test our work processes, tools and skills.

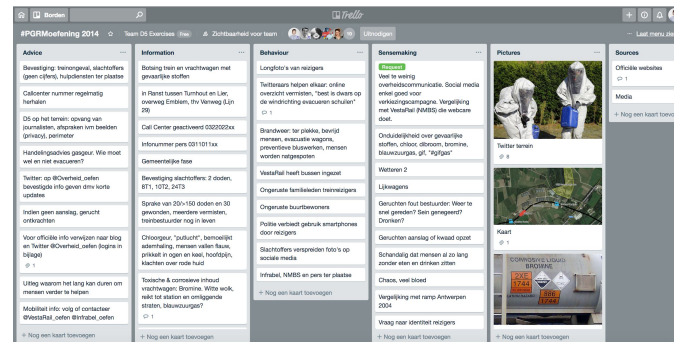


2013		
3/12/2013	kettingbotsing A19	Zonnebeke
5/12/2013	sinterklaasstorm	Oostende
2014		
17/10/2014	obus Italiëlei	Antwerpen
2015		
17/01/2015	geurhinder schip Schelde	Antwerpen
19/06/2015	waterloo 2015	Waterloo
28/06/2015	busongeval E40	Middelkerke
7/09/2015	bedrijfsbrand	Nieuwkerke / Heuvelland
6/10/2015	aanvaring Noordzee	Zeebrugge
21/10/2015	waterlek	Antwerpen
21/11/2015	dreigingsniveau 4	Brussel
2016		
22/03/2016	aanslag Zaventem en Maelbeek	Brussel
2017		
13/01/2017	stormtij	Brugge
31/03/2017	Salpeterzuurlek	Gistel
1/10/2017	Industriebrand	Wommelgem
12/11/2017	Stabiliteitsproblemen kraan	Nieuwpoort
23/11/2017	industriebrand	Vorst
2018		
2/08/2018	brand garage	Aartselaar
12/08/2018	brand haven Antw	Antwerpen





# TU Delft – We teamed up with a research team, adding to our annual Campus Vesta field exercise a **realtime, public social media simulation** with on site & remote volunteers playing affected citizens.



[Research paper](#) • [@k\\_meesters](#)

# eNOTICE 2017-2022

H.2020 SEC21c project

As Technical Coördinator, Vesta has a leading role in building the:



**European Network of CBRN Training Centers**



**Kathleen Van Heuverswyn**  
Research Coordinator & Senior Researcher  
[kathleen.vanheuerswyn@campusvesta.be](mailto:kathleen.vanheuerswyn@campusvesta.be)



# Objectives of eNOTICE



## Establish a Framework

Elaborate a framework for European network of chemical, biological, radiological and nuclear training centers, testing and demonstration sites.



## Optimize Resources

Set up a network for optimising investments by pooling and sharing resources, expertise, effective practices, and by organising joint activities.



## Connect Training Centers

Establish a web-based information and communication platform to provide, share and disseminate information during and after the project.



# European Network of CBRN Training Centers

# Core Activity of eNOTICE

## We demonstrate the added value of the project in international *Joint Activities*.

Regular Activity	Joint Activity
Field exercise Table Top exercises Simulations Serious Games etc.	These are <b>opened up to R&amp;D partners</b> , for: <ul style="list-style-type: none"><li>– Observation</li><li>– Testing</li><li>– Validation</li><li>– Demonstration</li></ul>

10th October 2018 in Rome, IT

Organised by UNITOV. [Read more...](#)



19th June 2018 in Brussels, BE

Organized by UCL. [Read more...](#)



29th January 2018 in Nimes, FR

Organised by ARMINES and METU. [Read more...](#)



## Logic & Benefits



# Why plugging in to Joint Activities makes sense

## FROM

Developing based on research shared, discussed and disseminated at a conference.

Explaining to researchers how reality functions.

Ordering an expensive exercise for the sole purpose of testing, validating, demoing a single setting.

## TO

Developing based on the **real needs** through **observing** (procedures, tools, interoperability, knowledge, ...)

Create a **realistic case experience**.

Find a training center who is **already organising an exercise**, with a scenario relevant for your project: field exercise, table top, simulation – chemical accident, terrorism, ...



# Example:

Annual field exercise at Campus Vesta



## Regular Activity Annual Multidisciplinary Field Exercise

Objective 1:  
Examination for the students  
Disaster Management

Objective 2:  
Training opportunity for the 5  
disciplines of the Province of  
Antwerp

## Joint Activity EU project developing disaster risk management tools

Multiple project partners plug in  
to the simulation, focusing on  
own objectives related to R&D  
of the tools

Observation of end user  
requirements

Testing of the methodology  
and tool + Focus Group

Validation (Demonstration)



# Benefits

## For **training centers (TC's)**

- 1) Enhanced preparedness
- 2) Improved training capacities
- 3) Building a community / networking

## For **researchers**

- 1) User driven R&D
- 2) Rely on the expertise of training centers
- 3) Benefit from TC's networks of practitioners

## For **practitioners**

- 1) Access to ongoing research, development, tools
- 2) International research community, best practices



## Common Benefits

- 1) **Exchange of expertise and knowledge**  
practitioners ↔ developers
- 2) **Cost efficiency**
  - Reduced cost for the research project
  - Extra income for the training center
- 3) **Increased mutual understanding:**  
training centers ↔ research community
  - Rather than "ordering an exercise", co-creating it as a joint activity, aligning the objectives with other partners involved
  - More goodwill, less resistance






# Common Benefits

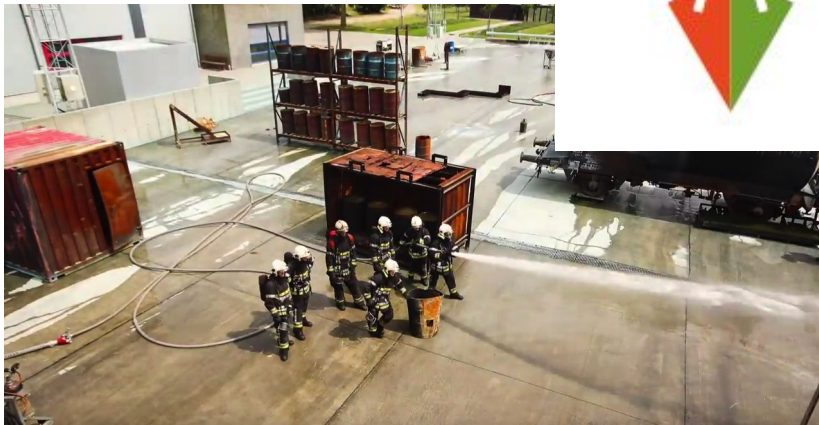
Sharing good practices within an **international community of training centers**



	Efficiency	Cost-efficiency	Lessons Learnt	Follow up
Field exercise				
Table Top				
Simulation				
Serious Game				
<b>Joint</b> Field exercise				
<b>Joint</b> Table Top				
<b>Joint</b> Simulation				
<b>Joint</b> Serious Game				
 <b>Collectively identify good practices + areas for improvement</b>				



Thank you! We hope to welcome you **as a participant** in a **Joint Activity**?!



Campus Vesta calendar of open activities soon on [eNOTICE website](#)