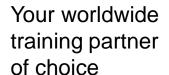
# TRAINING IN THE INFORMATION AGE

Cyber warfare and beyond

Michael Pegelow Key Account Manager GESI 17.05.2018







## Training today

Focusing on Command And Staff Training (CAST)





### TYPICAL CONTENTS OF TODAY'S CAST



### Combat/battle training

- Training of warfare scenarios
- Establishing standard operation procedures



### Decision making

- Analysis of status reports and current situations
- Planning & execution of operations



### Mission rehearsal

- Planning and testing of different scenarios
- Defining standard operation procedures



### **Emergency management**

- Training incident management teams on major events
- Coordination of emergency forces



### **CHARACTERISTICS OF CAST**

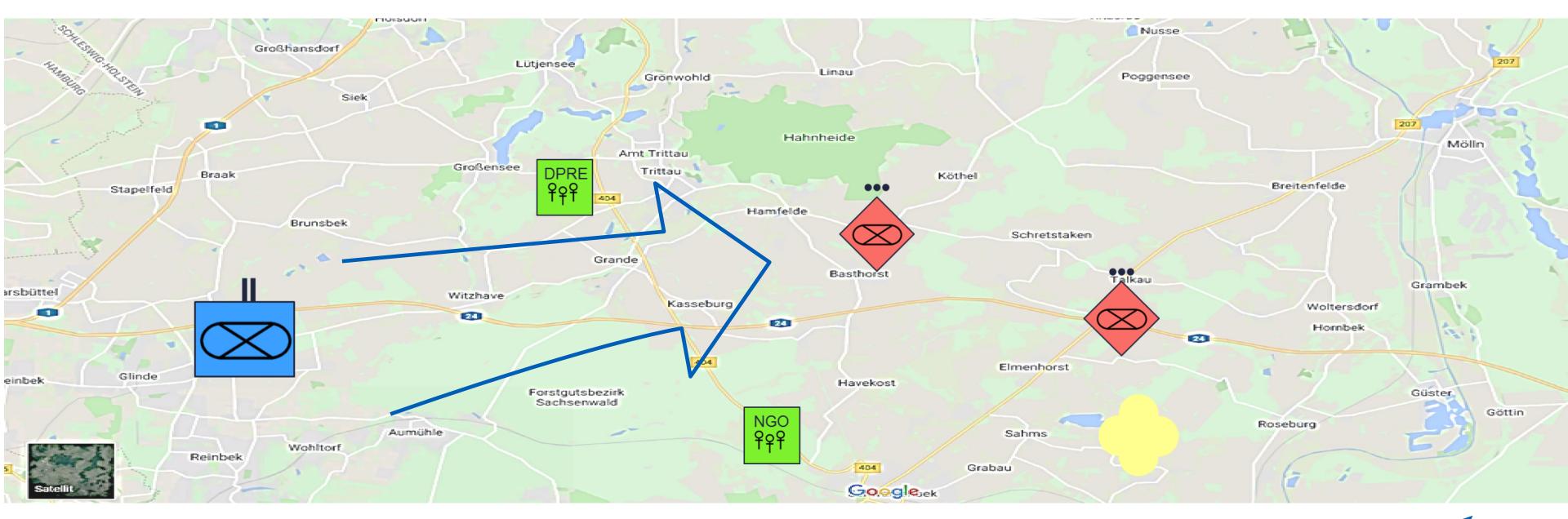
- ► Evaluation of current situation
  - Initial situation/evolving situation
  - Threat/opposing forces
  - Groups involved
  - Other influencing factors
- ► Planning activities
  - Deployment of forces
  - Areas of operation
  - Rules of engagement
  - Detailed mission planning
- ► Coordination of
  - Movement
  - Actions
  - Communication





### **,CLASSICAL' MILITARY CAST SCENARIO**

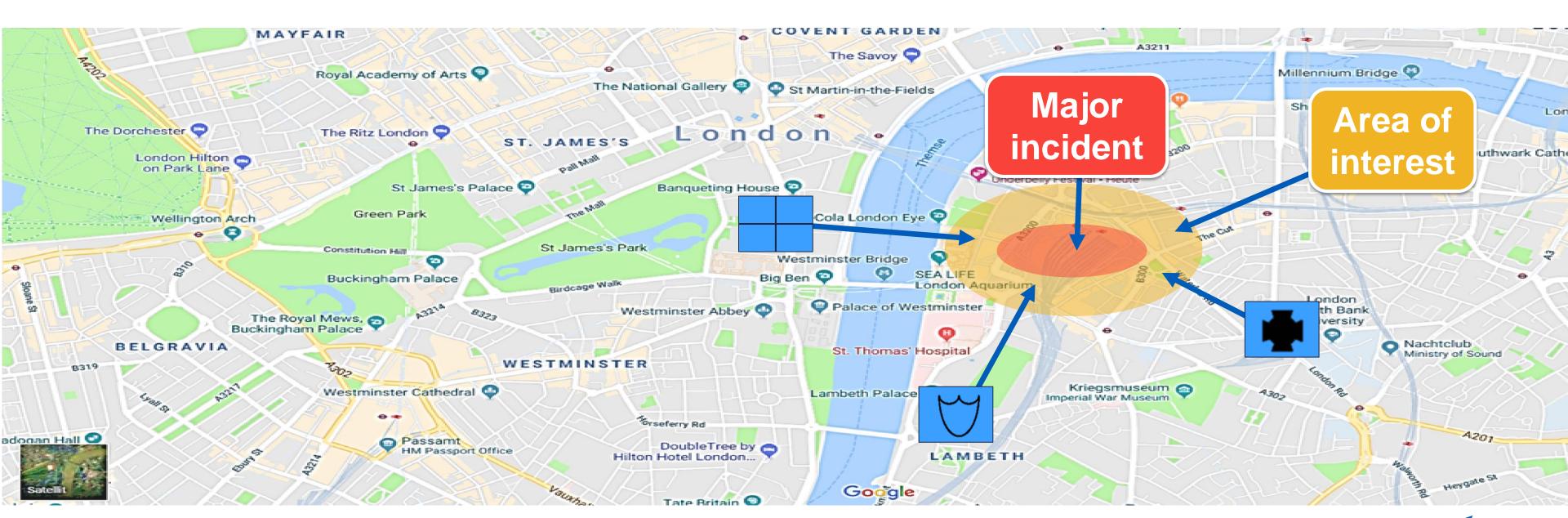
- Clearly defined mission types
- Clearly defined objective with intermediate objectives
- Enemy with predictable tactical behavior
- Groups are known with assumed behavior





### **,CLASSICAL' CIVIL CAST SCENARIO**

- Major incident as initial situation
- Main objective: coordination of all emergency response activities
- Take into account the influence of the incident on population and initiate corresponding actions like traffic control or evacuation



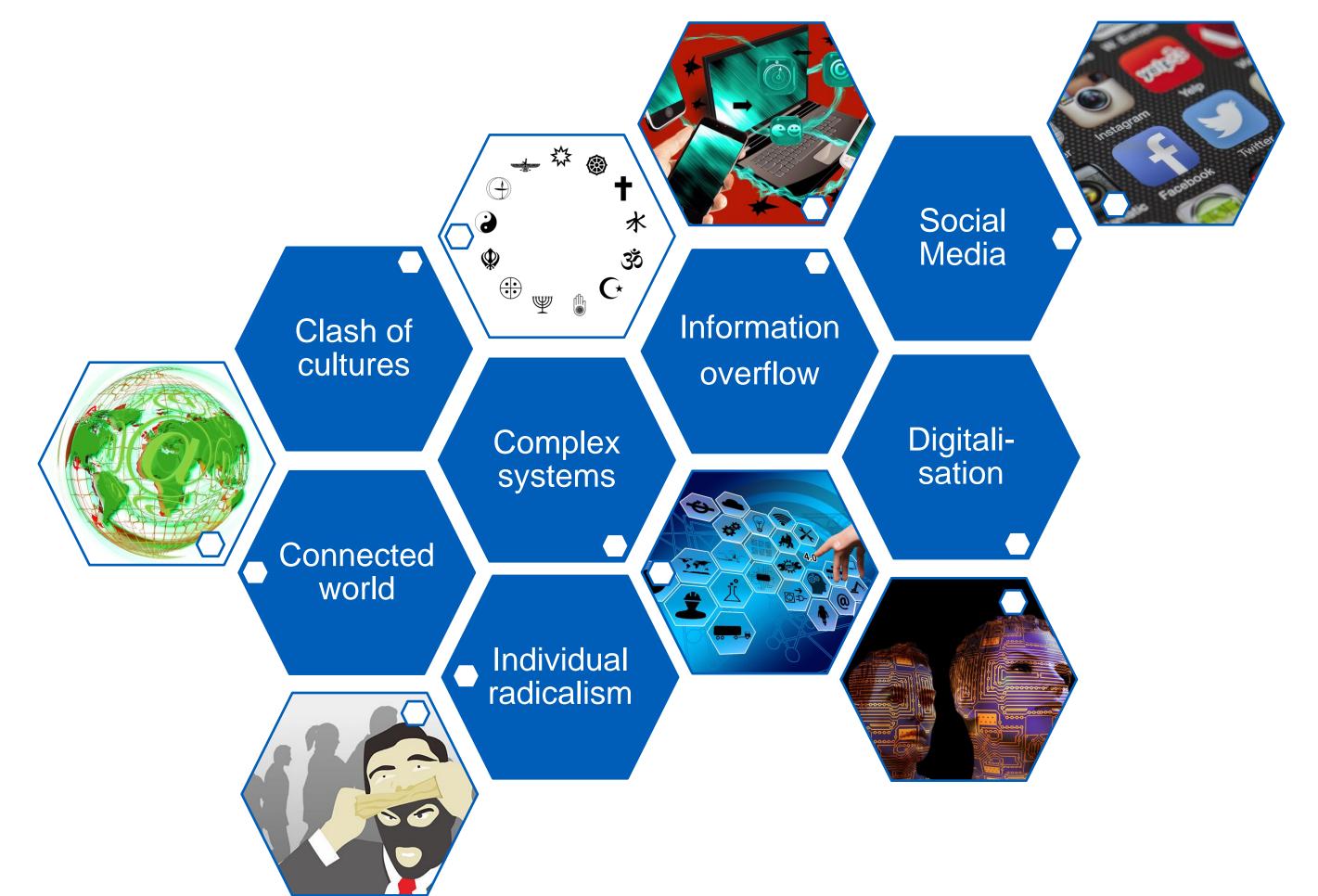


## The information age





### **CHARACTERISTICS OF THE INFORMATION AGE**





### **FACING THREATS**



### Asymmetric Warfare

- Belligerents with significant different military power
- 'alternative' tactics (e.g. moving combat into urban terrain)



### International terrorism

- Internationally operating terroristic organizations
- Complex terroristic actions by individuals



### Information warfare

- Situation reports by individuals
- Active publishing of fake news

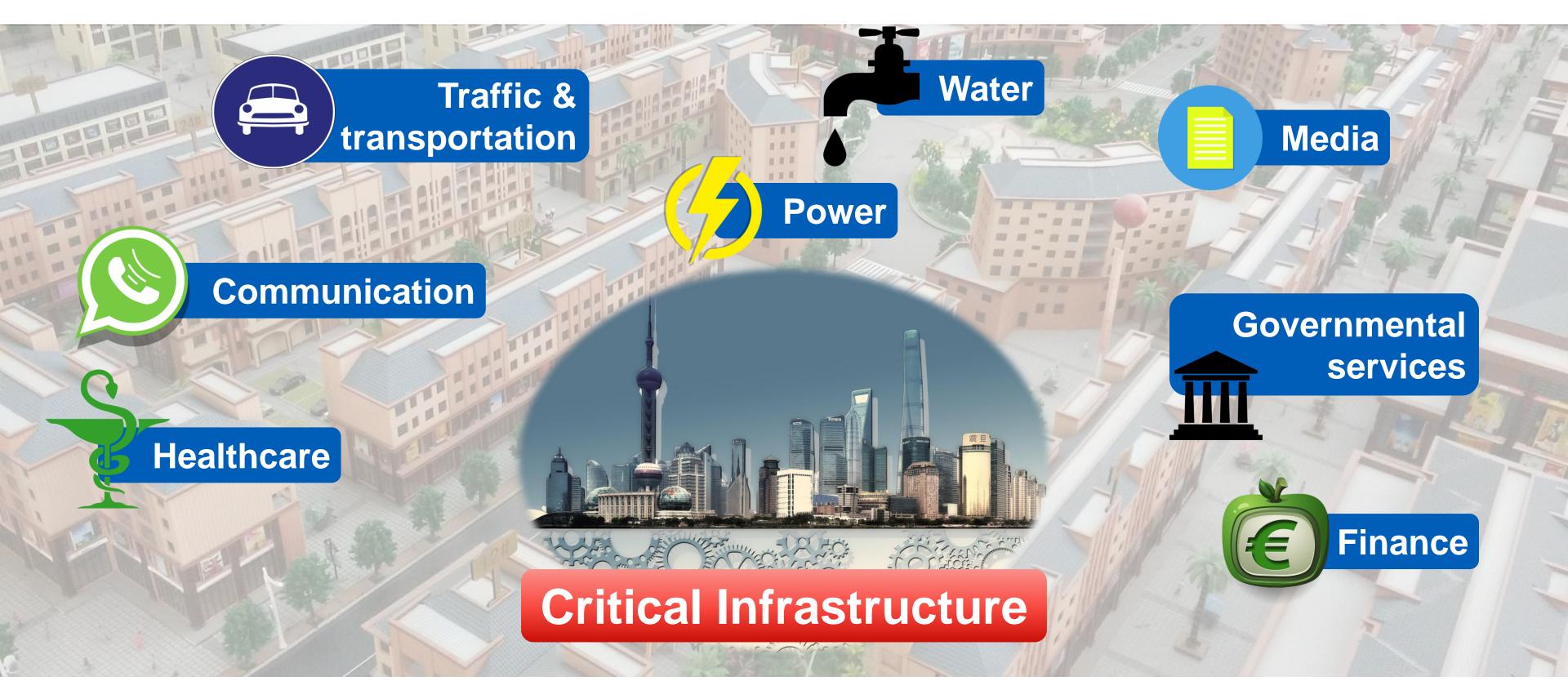


### Cyber warfare

- Cyber crime activities
- Sabotage of critical infrastructure



### POTENTIAL TARGETS FOR AGGRESSORS





# Training in the information age





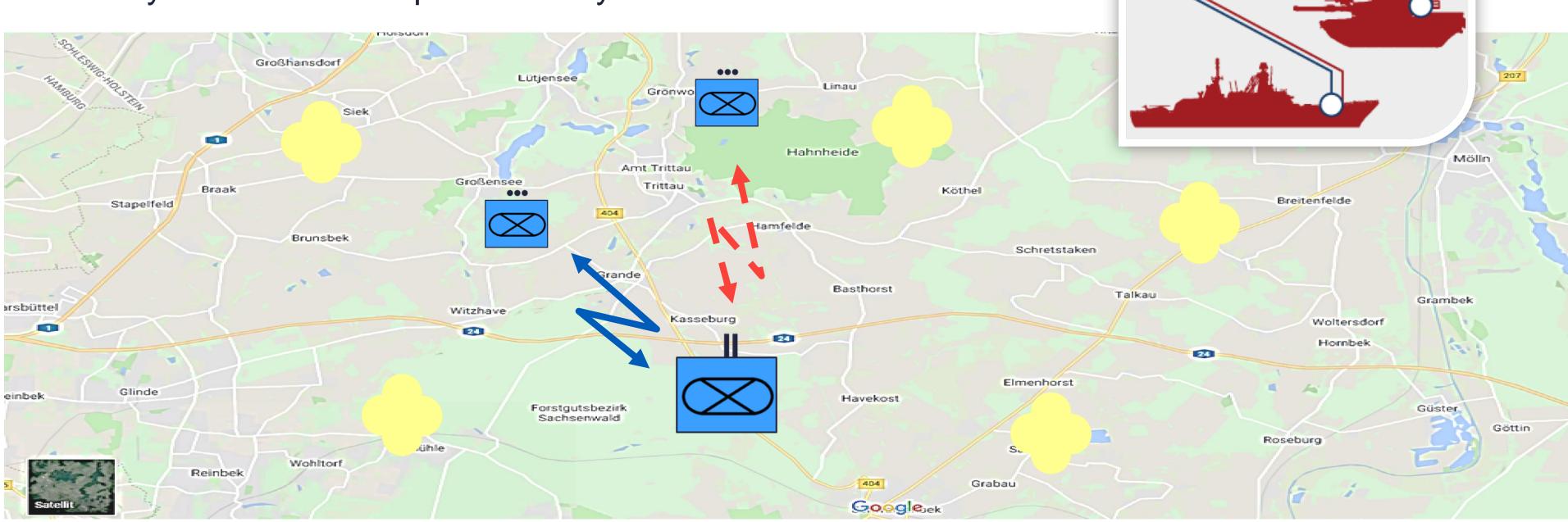
### TRAINING IN THE INFORMATION AGE

Unpredictable and invisible opponents

Corrupted communication systems

New communication channels in the area of operation

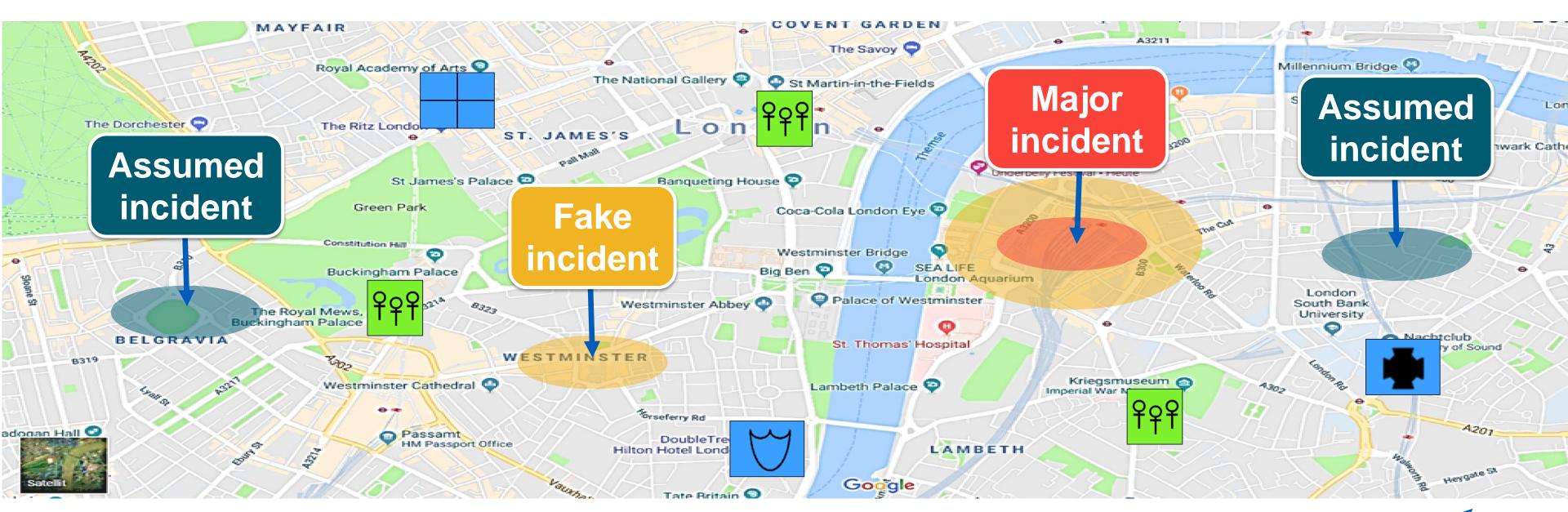
Cyber attacks on operational systems





### TRAINING IN THE INFORMATION AGE

- Information overflow due to individual status reports via social media
- Multiple spots due to reported assumed incidents
- Intentionally spreading of fake information
- Unpredictable behavior of population



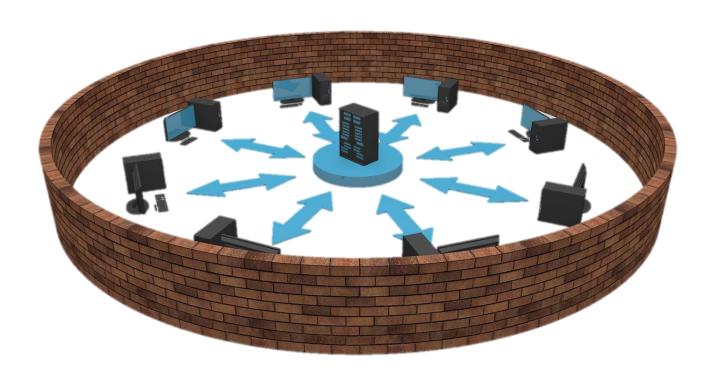


### **CYBER IN TRAINING**

### **Objectives**

- Increase awareness to the threats of cyber attacks
- Understand the different strategies to attack IT-systems
- Learn counter-measures against cyber attacks
- Improve security of systems
- Manage key resources







#### **SOCIAL MEDIA IN TRAINING**

### **Objectives**

- Understand how information is shared with social media
- Analyze the influence of social media to the society
- Increase the awareness to the threat of affected information in social media
- Use tools or techniques to influence social media
- Include social media in military and/or civil operations



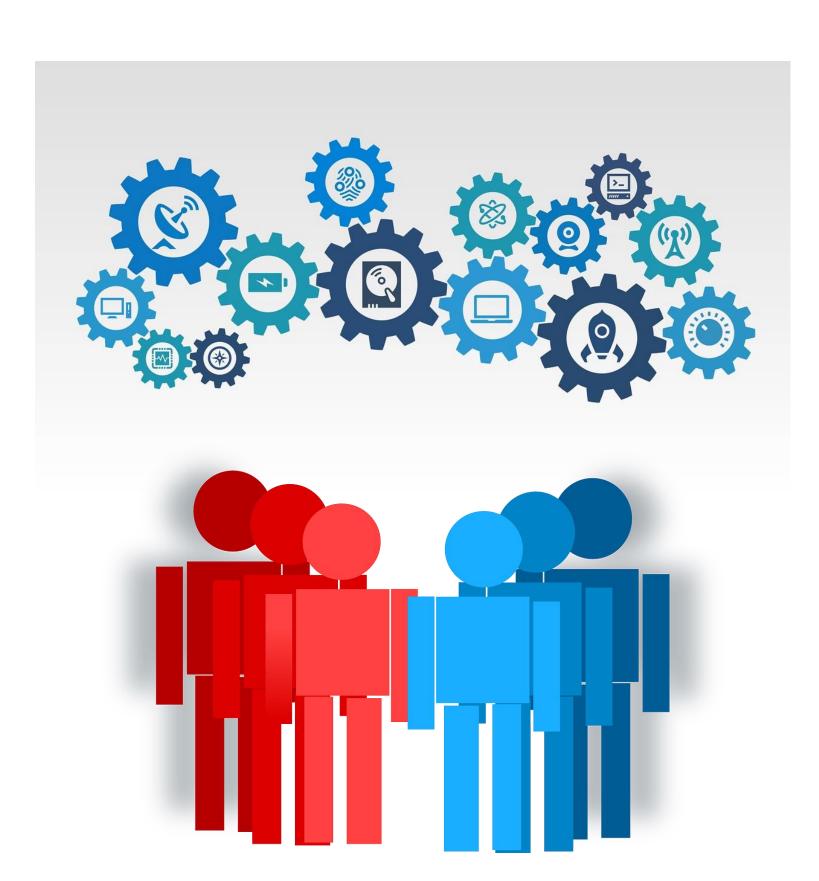




### **SOCIETY IN TRAINING**

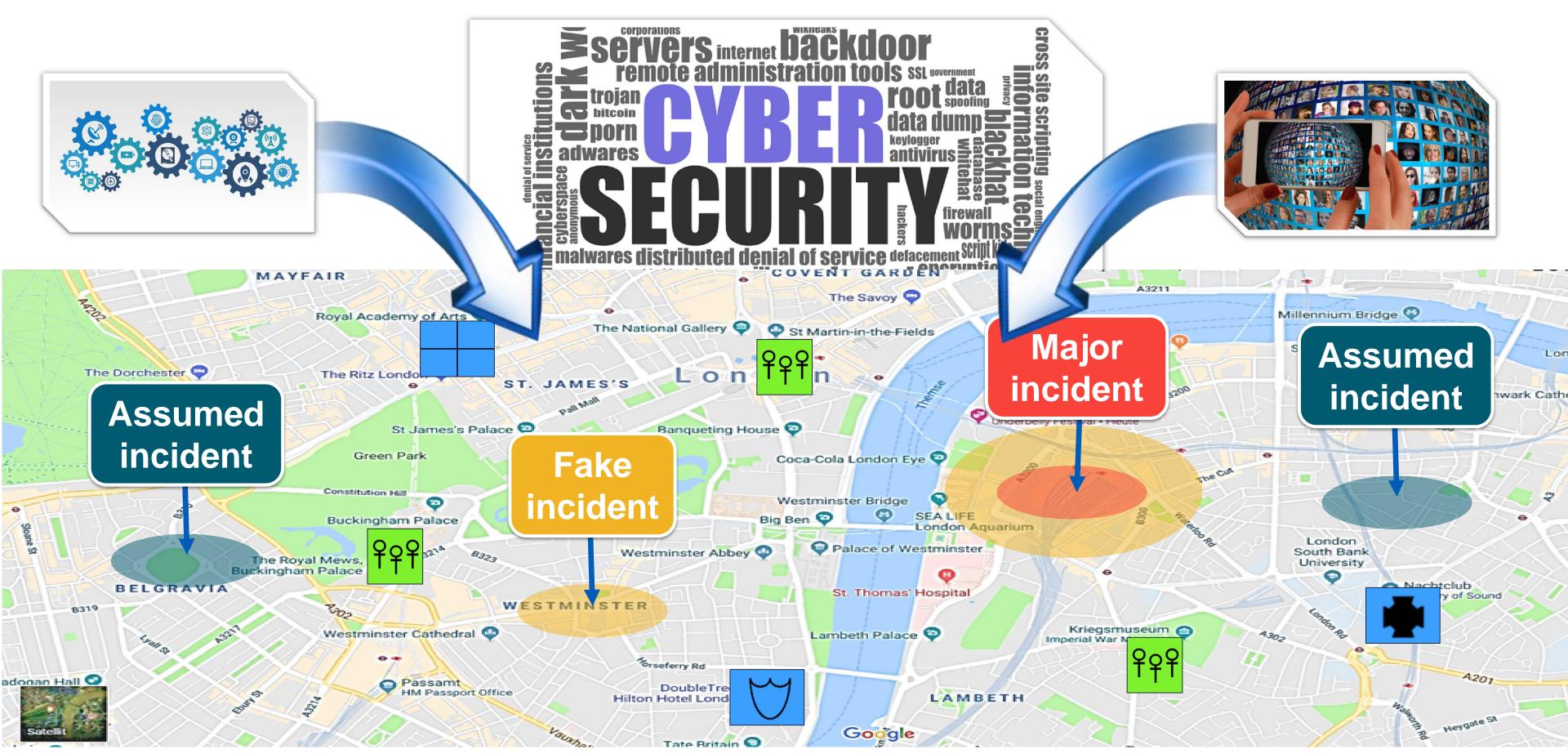
### **Objectives**

- Impact of attacks on critical infrastructure
  - Cyber attacks
  - Bombing
  - Others
- Behavior of crowds influenced by incidents, social media, etc.
- Effects of
  - Using emergency/security forces
  - Crowd control
  - Broadcasting information on different communication channels





### TRAINING IN THE INFORMATION AGE





### CAE'S COMMAND AND STAFF TRAINER





### CAE'S COMMAND AND STAFF TRAINER





Military & civil units



Medical service



Event system



CBRN & flood



Population & riot



etc.

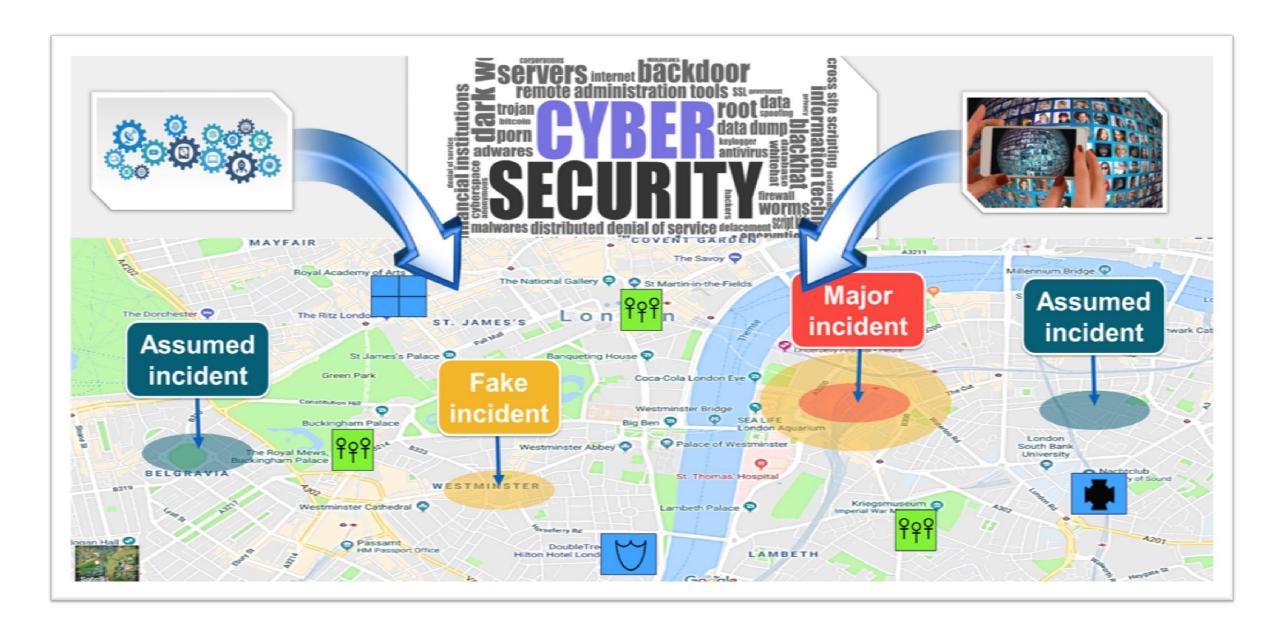


Social media





## GESI has various features to train the new challenges according to the threats of the information age.



# Feel invited to share your ideas with us!



### Thank you!

Michael Pegelow Key Account Manager GESI

Email: michael.pegelow@cae.com

Phone: +49 2402 106-673



