



Funded by the European Union



CBRN

Centres
of Excellence

An initiative of the European Union



2nd International CBRNe Workshop "IW CBRNe 2015"
Università di Roma Tor Vergata, 20 November, 2015
Michael Thornton

Teach them how to fish





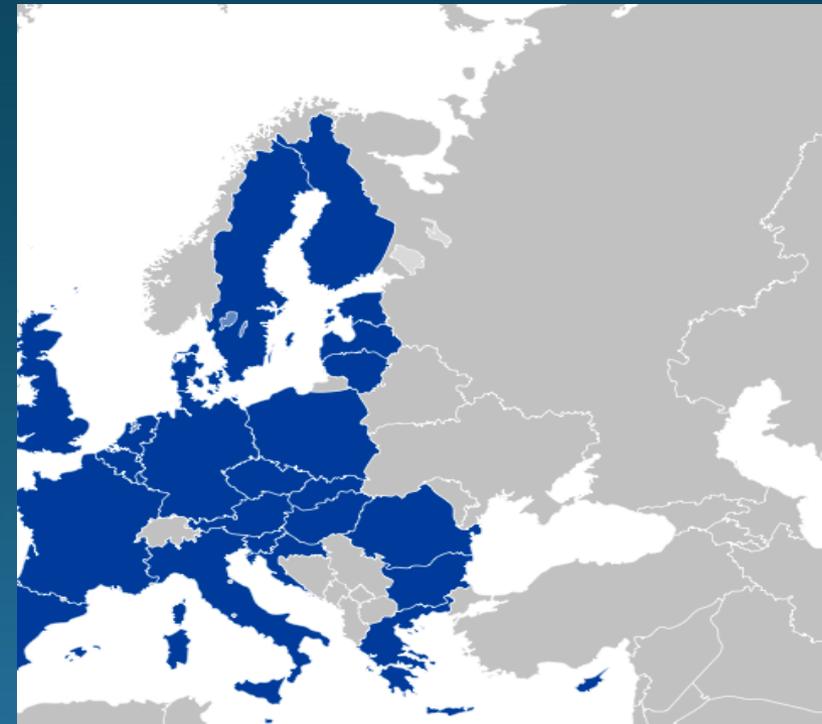
Funded by the European Union



CBRN
Centres
of Excellence
An initiative of the European Union

Inside the EU

- The EU has the CBRN Action Plan for the EU-28
- **Primary responsibility** for mitigating CBRN risk lies with **Member States**





We would like to stop them at source

IRENE, 18, IS ON THE MEND
Daily Record
 SCOTLAND'S CHAMPION

EBOLA IS HERE

Female aid worker tests positive for killer disease
 She fell ill after flying from Africa to Glasgow
 Hunt for passengers on same jet from Heathrow

EL PAÍS
 EL PERIÓDICO GLOBAL

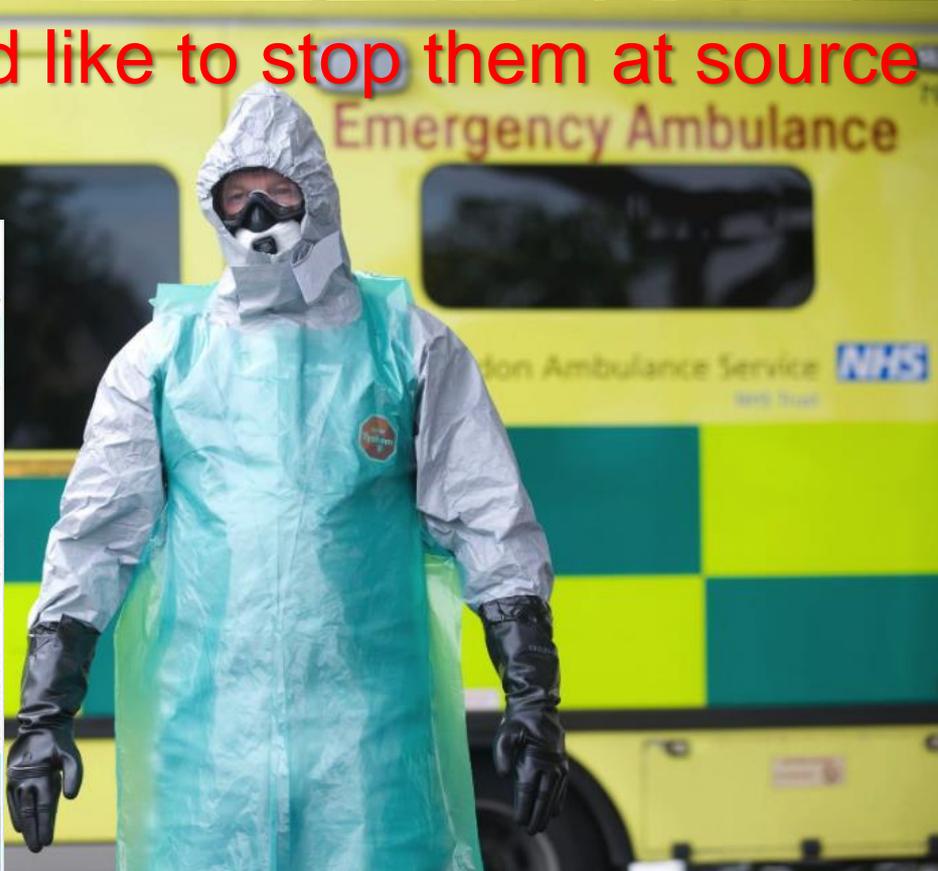
Plan de emergencia en Madrid por el primer caso de ébola en Europa

Una auxiliar del Carlos III se infecta tras traer a los dos repatriados españoles

Comenzó a mostrar síntomas que los trajes protectores no cumplían los requisitos

Mas fractura al frente soberanista al admitir que podría suspender la consulta

Nace elpais.cat, un diario global en catalán con vocación de pluralidad





Funded by the European Union



CBRN
**Centres
of Excellence**
An initiative of the European Union

Outside of the EU



CBRN

**Centres
of Excellence**

An initiative of the European Union





Funded by the European Union



Iraq



Jordan



Lebanon



Albania



Armenia



Bosnia and Herzegovina



FYR of Macedonia



Georgia



Moldova



Montenegro



Serbia



Ukraine



Benin



Côte d'Ivoire



Gabon



Liberia



Morocco



Mauritania



Senegal



Togo



Algeria



Libya



Niger



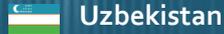
Tunisia



Afghanistan



Kyrgyzstan



Uzbekistan



Tajikistan



UAE



Qatar



Saudi Arabia



Burundi



DRC



Ghana



Kenya



Malawi



Rwanda



Seychelles



Tanzania



Uganda



Zambia

Brunei Darussalam

Cambodia

Indonesia

Lao PDR

Malaysia

Myanmar

Philippines

Singapore

Thailand

Viet Nam



CBRN Centres of Excellence An initiative of the European Union

52 Partner Countries 8 Regional Secretariats





Funded by the European Union



CBRN
Centres
of Excellence
An initiative of the European Union

Responsibility

- Primary responsibility for mitigating CBRN risk lies with partner countries
- CoE helps identify needs
- CoE can compliment and help build capacity



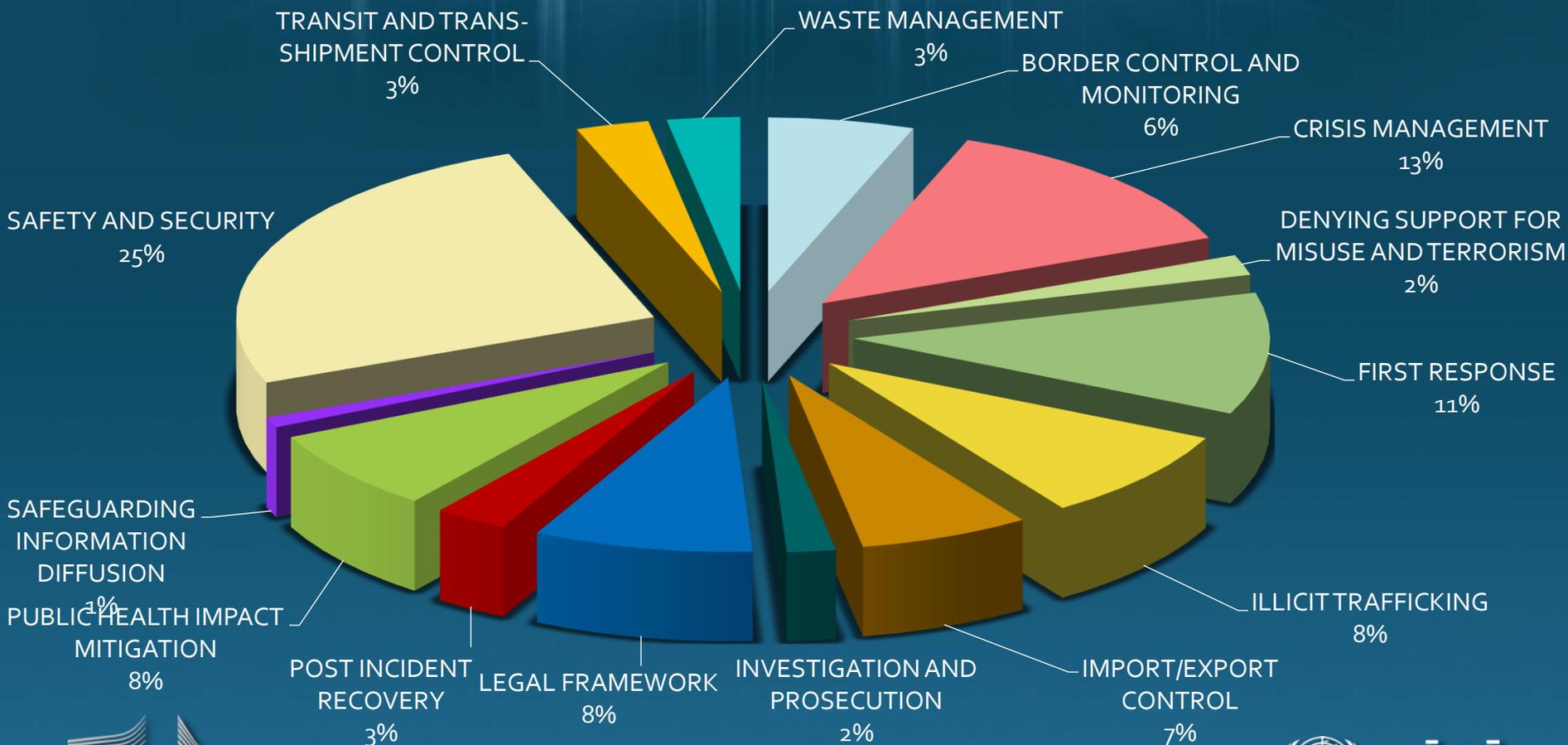


Funded by the European Union



CBRN
**Centres
of Excellence**
An initiative of the European Union

Technical areas of 49 CoE projects





Funded by the European Union



CBRN
Centres
of Excellence
An initiative of the European Union

Lao-Tzu 5th Century BC

- *Give a man a fish, and you feed him for a day.
Teach a man to fish, and you feed him for a lifetime.*





Funded by the European Union



CBRN
**Centres
of Excellence**
An initiative of the European Union

Redundant equipment





Funded by the European Union



CBRN
**Centres
of Excellence**
An initiative of the European Union

Strengthen the long-term national and regional capabilities



Professor Alastair Hay with university professors from Jordan, Lebanon and Iraq



Lecturing to students on the dual-use of chemicals at the Université Saint Joseph, Lebanon





Funded by the European Union



CBRN
**Centres
of Excellence**
An initiative of the European Union





Funded by the European Union



CBRN
**Centres
of Excellence**
An initiative of the European Union

Support and reinforce short-term response capabilities











Funded by the European Union



CBRN
**Centres
of Excellence**
An initiative of the European Union

Emergency response













First response and decontamination in the first 15 minutes



- Communicate
- Evacuate
- Disrobe
- Decontaminate
- (Dry)
- Cheap
- Effective
- Uses no water



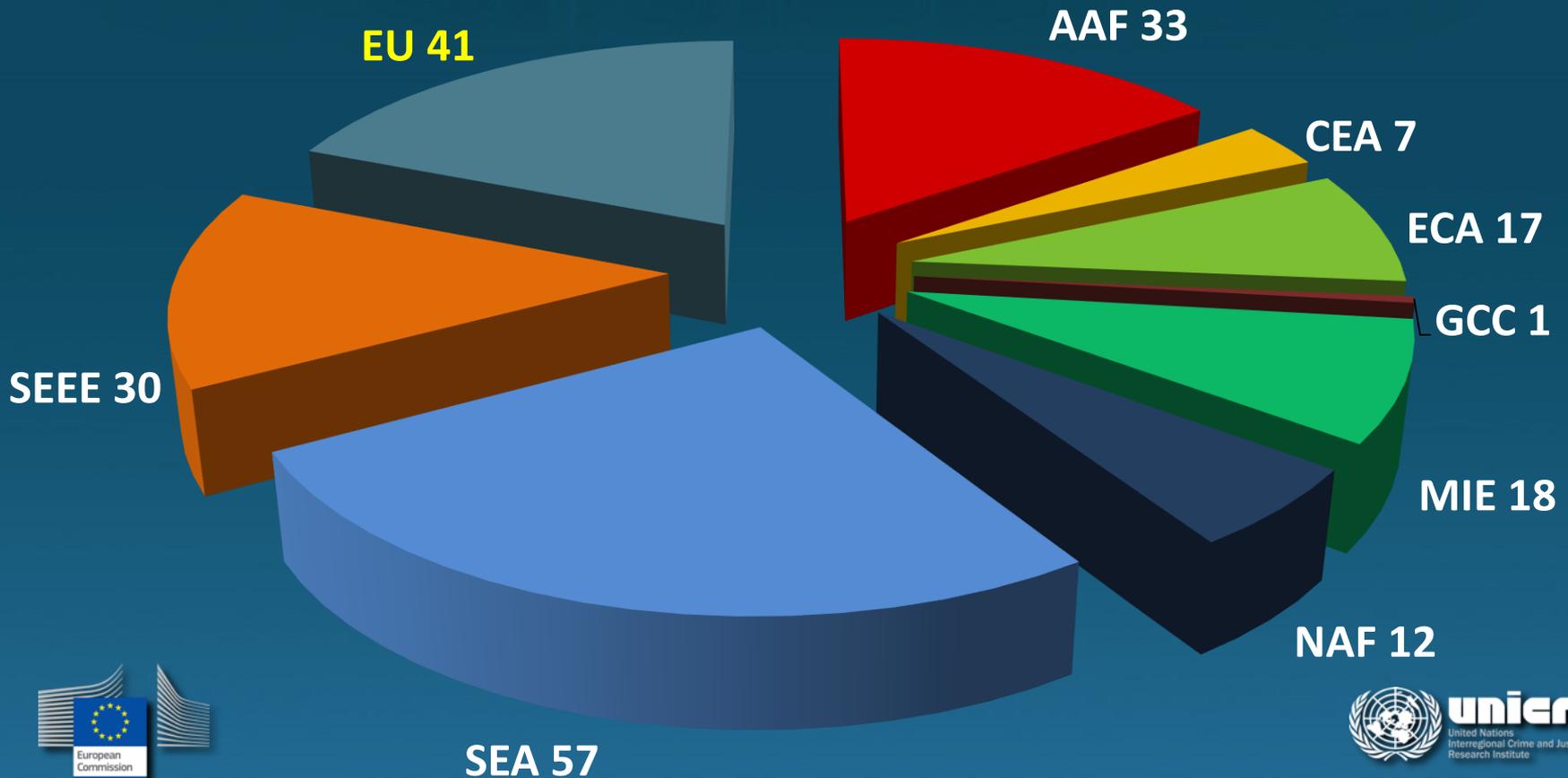


Funded by the European Union



CBRN
**Centres
of Excellence**
An initiative of the European Union

Training sessions per region





Funded by the European Union



CBRN
**Centres
of Excellence**
An initiative of the European Union

Ospedale del sacco, Milan BSL-3





Funded by the European Union



CBRN
**Centres
of Excellence**
An initiative of the European Union

Kingdom of Brunei

- Knowledge Development and **Transfer of Best Practice** on Bio-safety, Bio-security and Bio-risk Management





Funded by the European Union



CBRN
Centres
of Excellence
An initiative of the European Union

Libreville, Gabon

- University Hospital Angondjé, home of the Gabon Cancer Institute
- Cost around 82 million Euros and was opened in 2012
- It prides itself in a state-of-the-art waste filtration and management system for liquid and solid BC waste, including a modern double-chamber, pollution-free, General Electric diesel fuelled incinerator



Centre Hospitalier Universitaire d'Angondje
et
Institut de Cancérologie de Libreville





Funded by the European Union



CBRN
Centres
of Excellence
An initiative of the European Union

Centre hospitalier universitaire D'Owengo

- Pharmacology, Toxicology, Chemistry labs. are not adequately equipped for hazardous waste disposal
- There was **no waste management system** in place
- BC waste and expired chemicals could not be disposed of so hazardous **BC materials are stored unlisted in the labs on the floors, in drawers, in small cupboards and rooms and in the roof space**





Funded by the European Union



CBRN
Centres
of Excellence
An initiative of the European Union

Solid waste

- **Biological waste** from the Pathology Department is stored in the department for six months (**in order to allow relatives to claim body parts for burial**) and then shipped to **municipal waste dump** if not claimed
- (Mbeubeuss Landfill one of largest landfills in the world)





Funded by the European Union



CBRN
**Centres
of Excellence**
An initiative of the European Union

Liquid waste

- Liquid waste is **poured down the drains** into the sewer
- Toxic wastes leech into the stream which flows around the the hospital
- The heavily polluted water of this river used by local inhabitants for **washing their clothes and children playing** in the river







CBRN
**Centres
of Excellence**
An initiative of the European Union

- Work in a BSL-3 lab





One size does not fit all





Funded by the European Union



CBRN
**Centres
of Excellence**
An initiative of the European Union

Capacity building

- We need a holistic approach
- Raising awareness (education) and capacity building at all levels
- Simple, low tech solutions may be the best
- One size does not fit all
- With challenges comes opportunities





Funded by the European Union



CBRN
**Centres
of Excellence**
An initiative of the European Union



For further information please contact
Mike Thornton on +39 0332 785371

www.cbrn-coe.eu

E-mail michael.thornton@jrc.ec.europa.eu

