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# UNMAS



## SMART IED Threat Mitigation Technology Roadmap

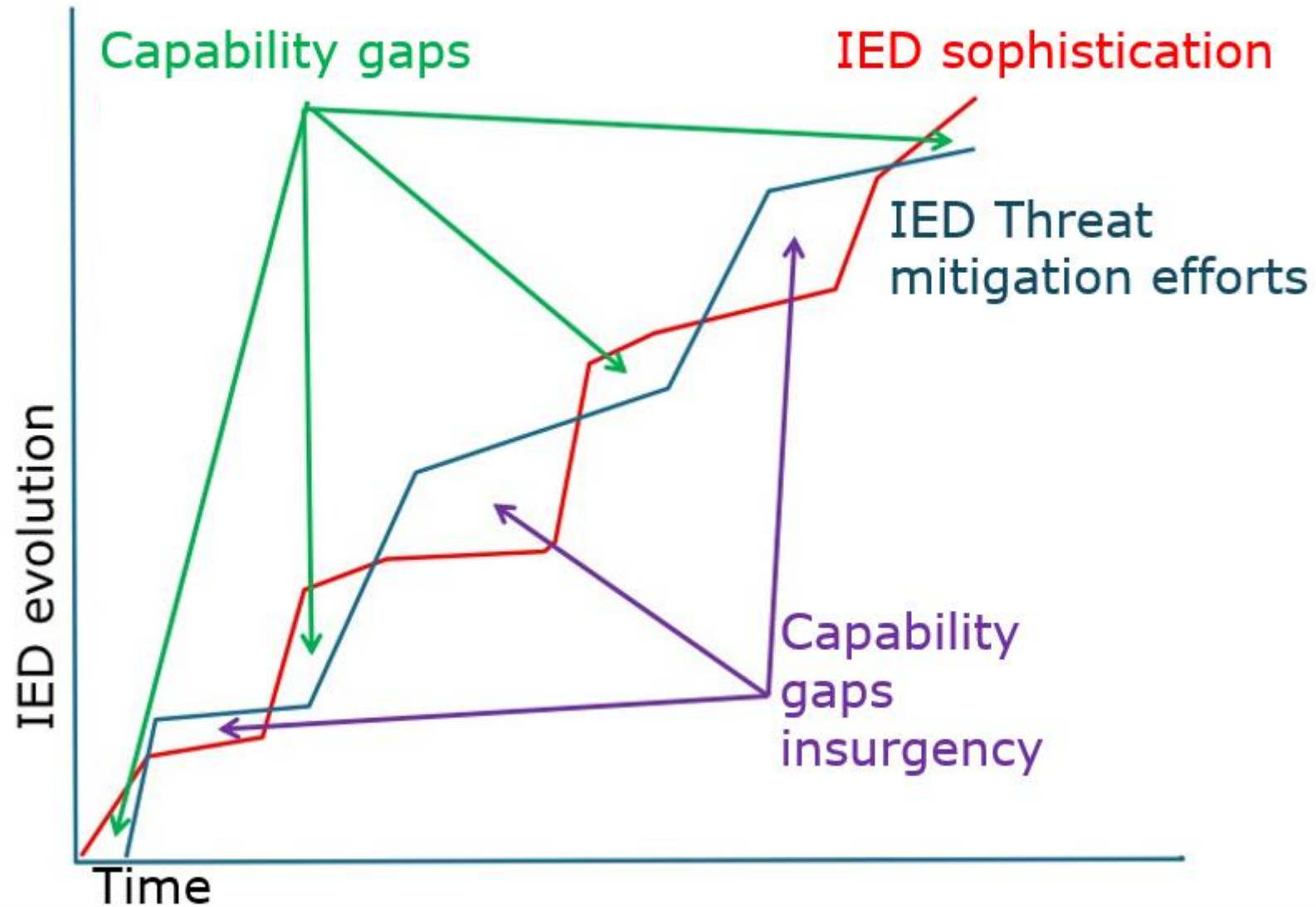
CONVENTION ON CERTAIN CONVENTIONAL WEAPONS - AMENDED PROTOCOL II  
GROUP OF EXPERTS MEETING

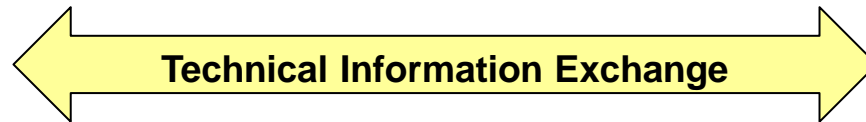
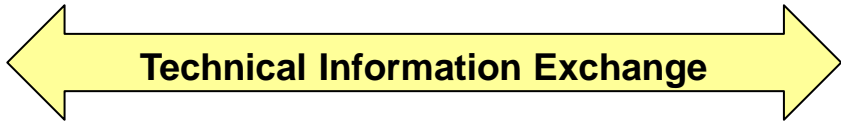
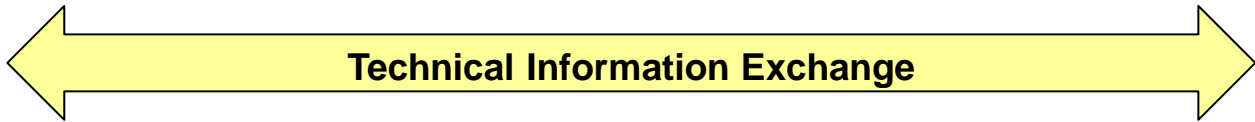
Geneva - 29 September 2020

Alexander Riebl - UNMAS TMAT - IED Threat Mitigation Advisor



# IED Arms race





**Continuum of Conflict**

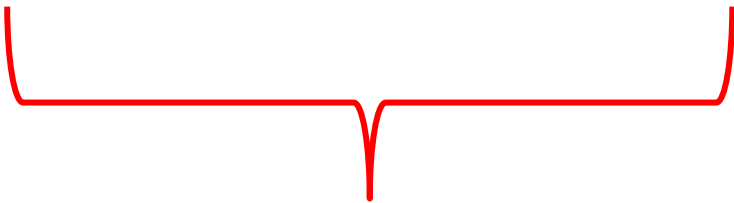
**HUMANITARIAN SPACE**

**SECURITY**

**PEACEKEEPING**

**MILITARY CONFLICT**

**\*Peace and Security  
(non-humanitarian environment)\***



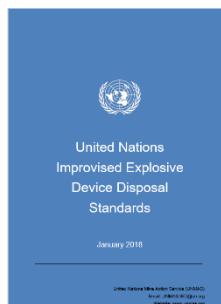
**UN IEDD Standards**

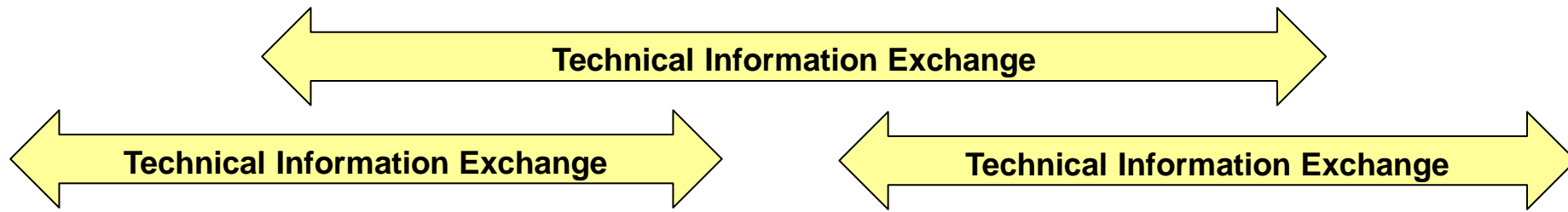
**National Military Standards on IEDD.**



**2019**

**“Updated to include IEDD”**





=

- **Tool / Platform**
- **to share information**
- **to share best practice**
- **IED related TECHNOLOGY**  
(threats & mitigation)

**only UNCLASSIFIED**



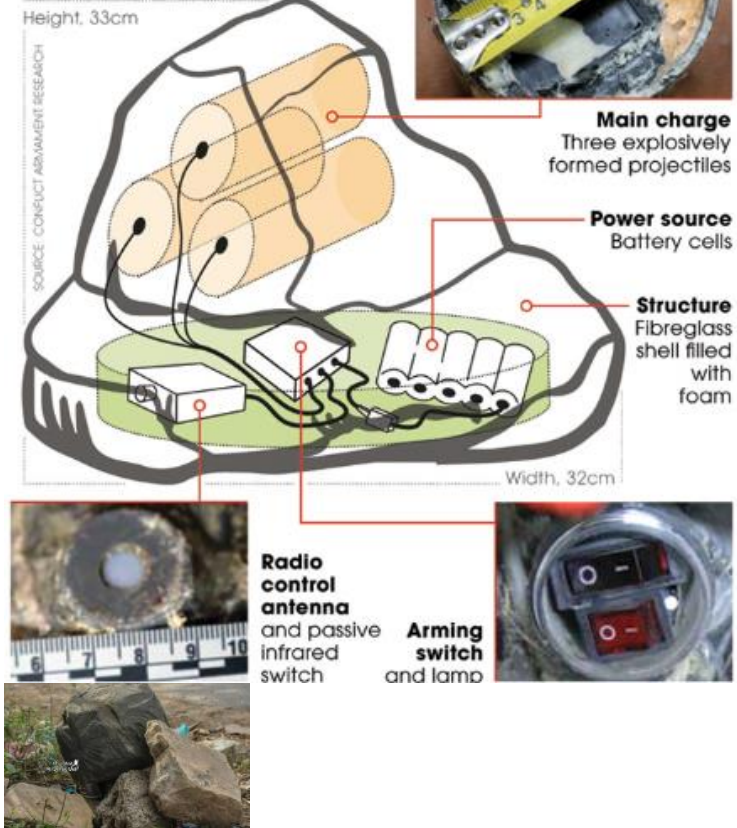
- Incident Data / Reports
- TTPs
- IED tutorial
- UN Endorsement of Products
- classified/sensitive information

# Understanding the Threat

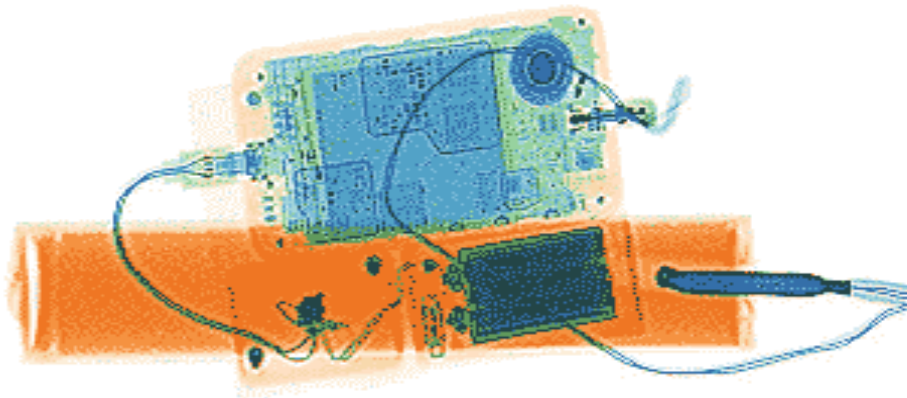


## Hiding in plain sight

Houthi synthetic rock IEDs closely resemble devices recovered in Iraq and Lebanon which have been forensically linked to Iran



# Understanding Technology



Sticky Bomb Detection with Other Implications for Vehicle Security

Kyle R. Jorjani, Jim Vetter, and Jon S. Vetter

Vulnerability Assessment Team  
Airborne National Laboratory

**Introduction**

A sticky bomb is a type of improvised explosive device (IED) motor vehicle by (for example) a terrorist. The bomb is typically adhesive (Tack) tape, or with magnets. The cover records a result for a very rudimentary demonstration of how technique placement of a sticky bomb on a motor vehicle. There are other applications for these techniques as well.

**Method 1: The Pressure**

The weight of a truck and its cargo load can theoretically be measured by the tire pressure. [1] We investigated whether a vehicle's weight (such as that caused by the addition of a sticky bomb) could be detected by monitoring the vehicle's tire pressure.

The pressure was measured using a Verder 1204 analog gauge with a MKS 58 Series differential pressure transducer (model -5800) with 1 Ton pressure range full scale. The effective resolution was approximately 0.001 Ton. For comparison, the average atmospheric pressure is 14.7 PSI or a force of 1 Pascal = 15 millinewtons of force per square inch. Much more transducers are available commercially.

The pressure measurements were made on a parked 2004 Ford automobile (because that is what we had available to experiment with during measurements).

**Low Cost, Low Power Magnetic IEDs Detection Method Using Biased Magnetometry Digital Sensors**

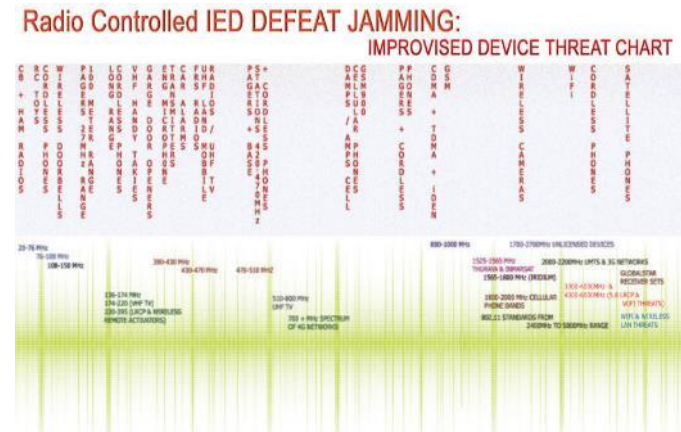
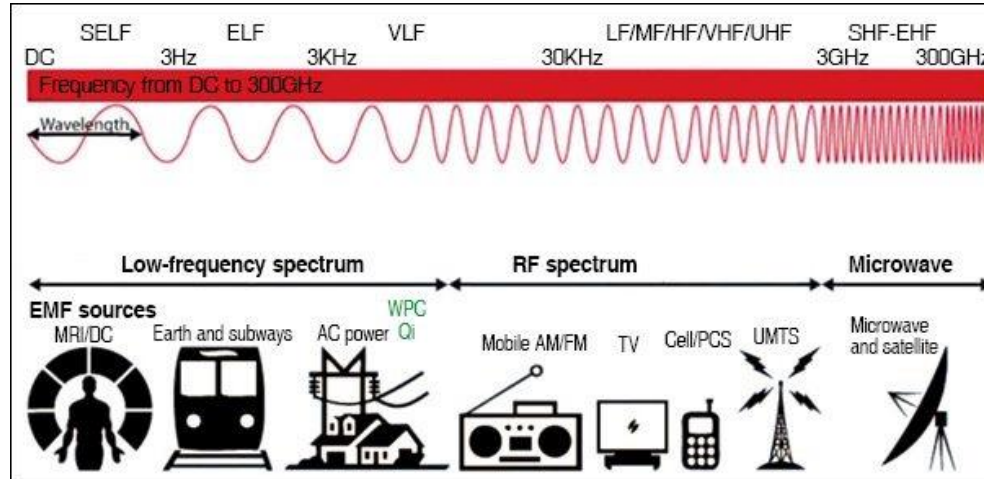
Shane R. Albert and Khalil Haddad

**Introduction**

Abstract—The magnetic improved explosive device (MIED) for explosive items is a type of a sticky bomb or magnet-mounted device on a vehicle. This paper presents the use of a magnetometer to detect the presence of a sticky bomb on a motor vehicle. The paper also presents a method for detecting a sticky bomb on a motor vehicle. The paper also presents a method for detecting a sticky bomb on a motor vehicle. The paper also presents a method for detecting a sticky bomb on a motor vehicle.

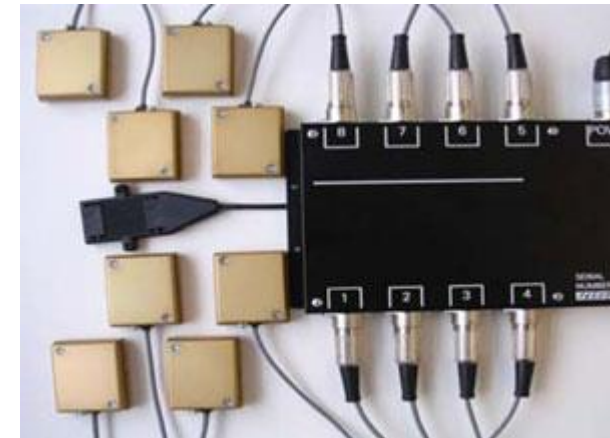
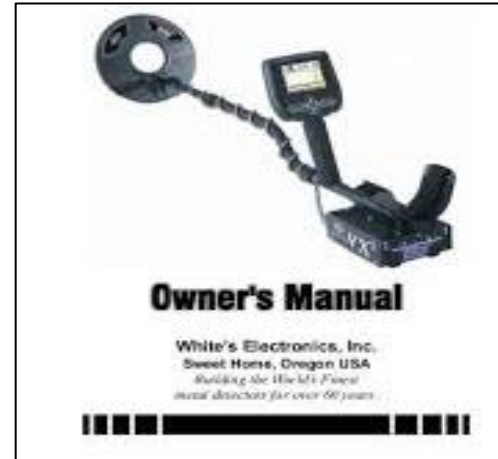
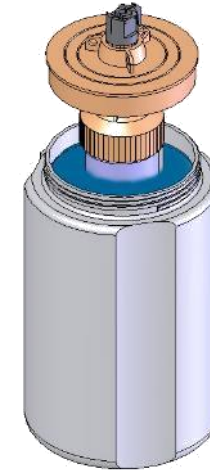
**1. Introduction**

The MIED is a type of IED that is used to detect the presence of a sticky bomb on a motor vehicle. The MIED is a type of IED that is used to detect the presence of a sticky bomb on a motor vehicle. The MIED is a type of IED that is used to detect the presence of a sticky bomb on a motor vehicle.





# Knowing the Industry



# SMITMiTR Contributors



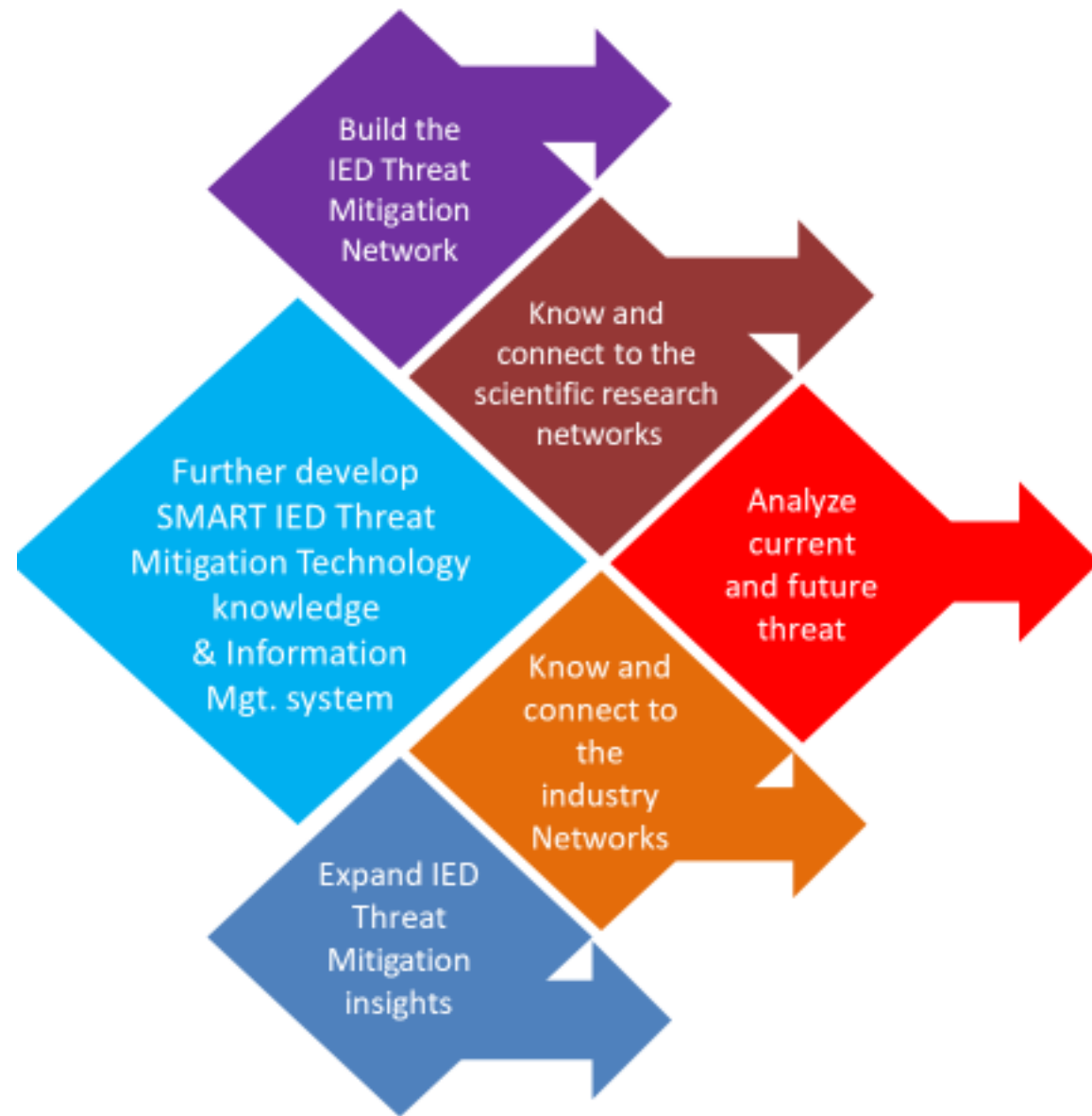
UN IED Threat Mitigation ToE

+ ALL ACTORS in an IED Threat Environment

<https://smitmit.unmas.org>



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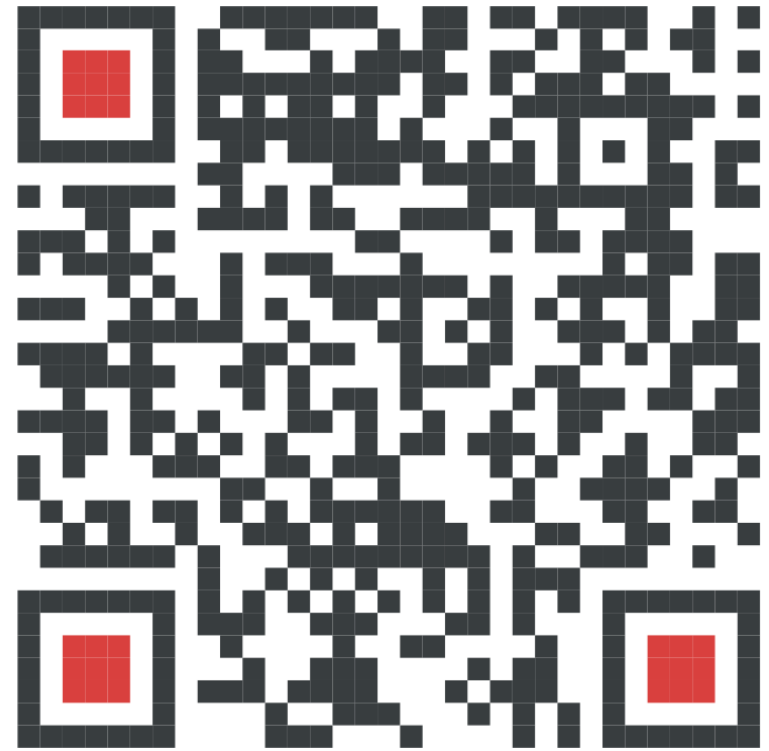
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To be filled!

**SMITMiTR needs YOUR INPUT and SUPPORT!**

Contact: [unmas.ied@un.org](mailto:unmas.ied@un.org)

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