

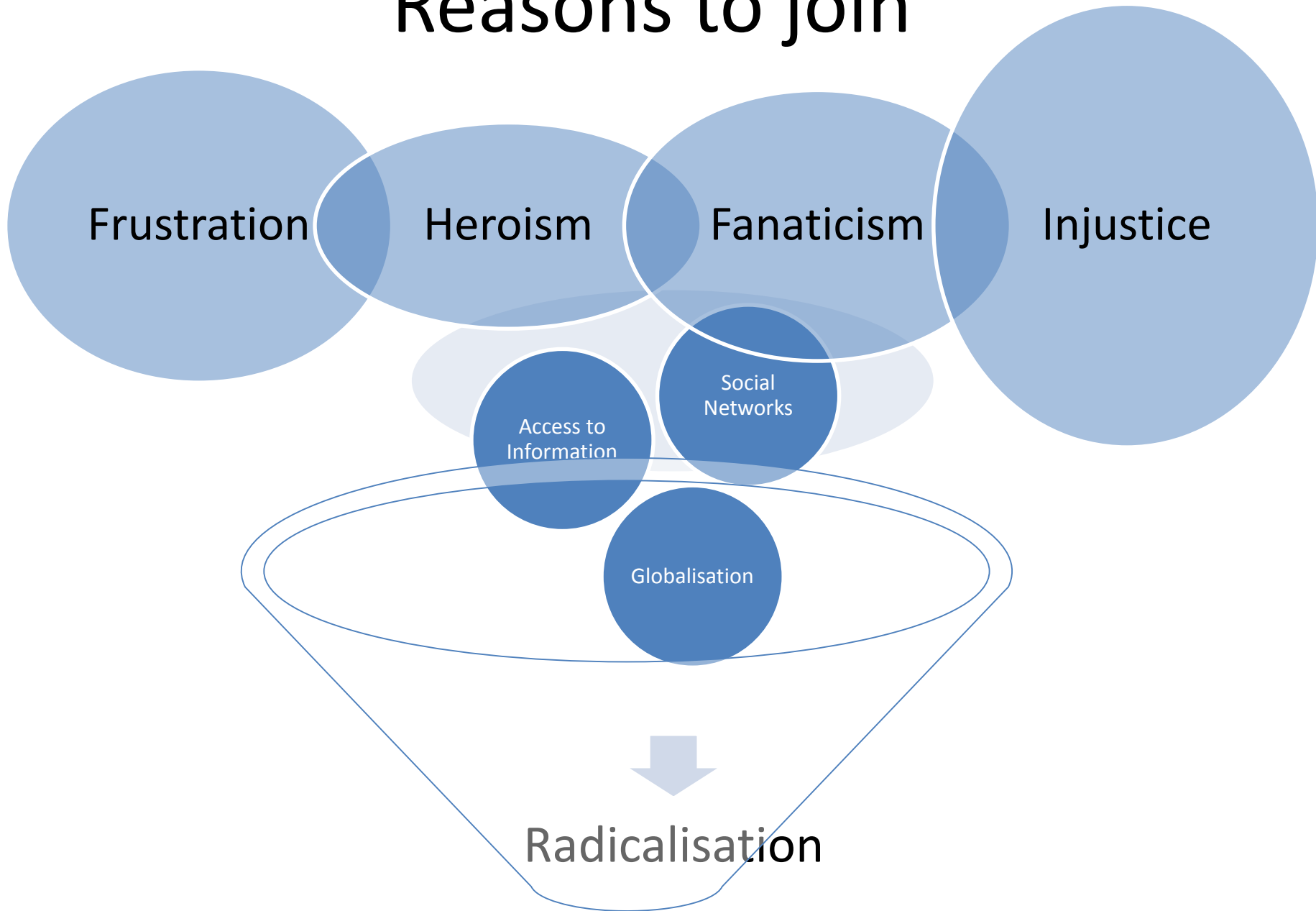
Impact of Terrorism on Energy Infrastructure Security

Understanding Causes and
Consequences

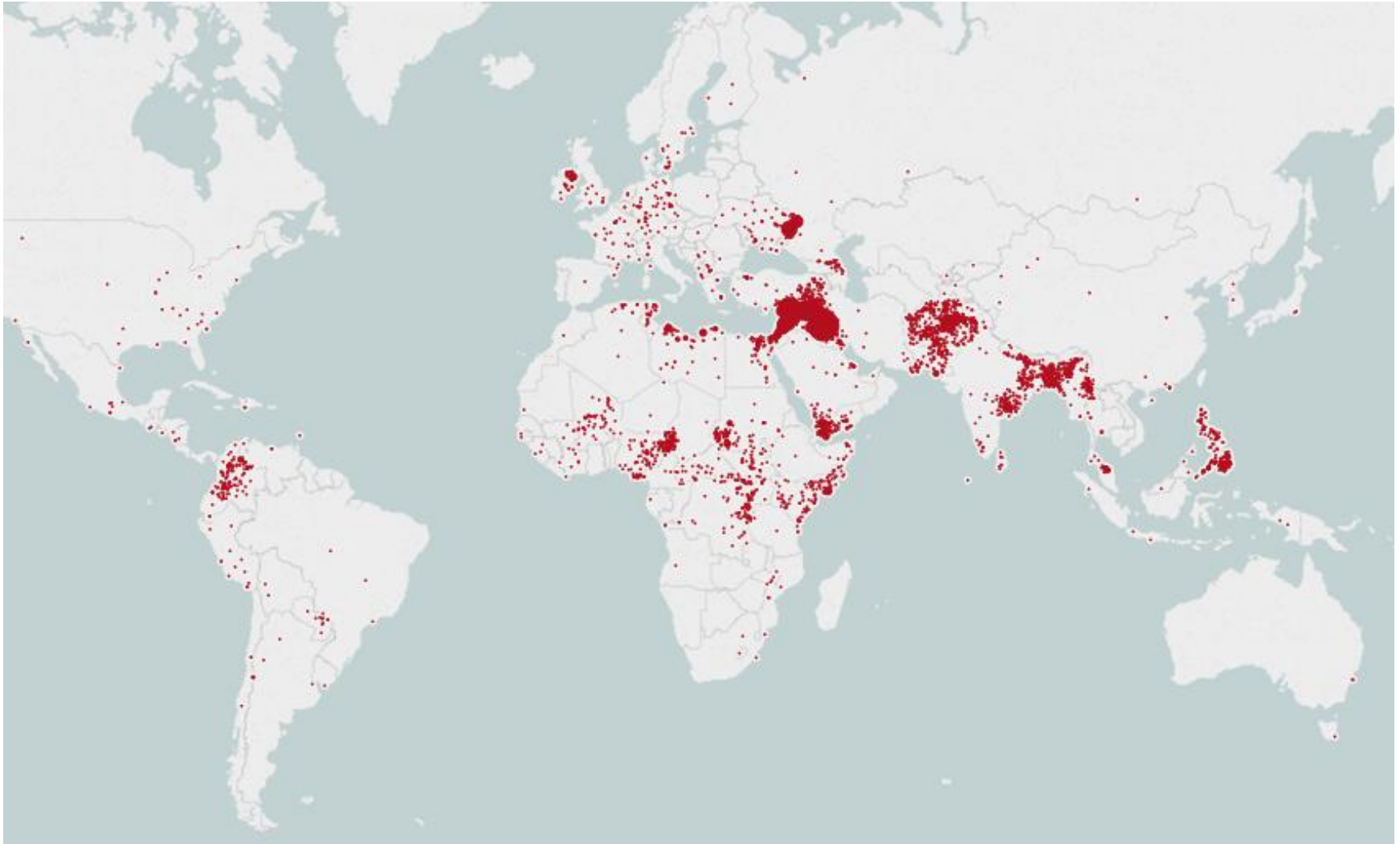
Agenda

- Terrorism
 - Definition
 - Geographic distribution
 - Key players of the Caucasus
- Energy Infrastructure
 - Geographic distribution
 - Overlapping areas
- Impact on Security
 - Current status
 - Trends and Risks

Reasons to join

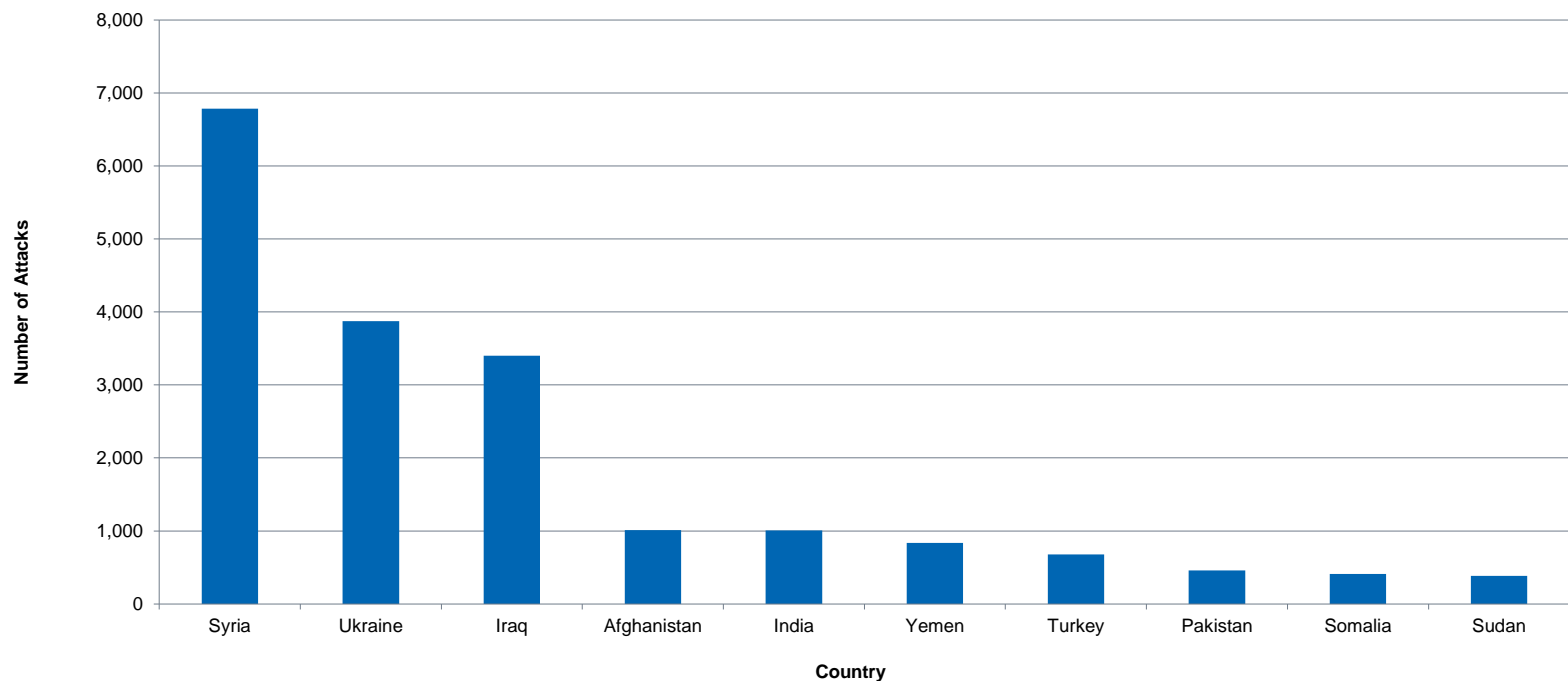


Worldwide attacks, November 2014 – October 2015



Worldwide Attack Trends

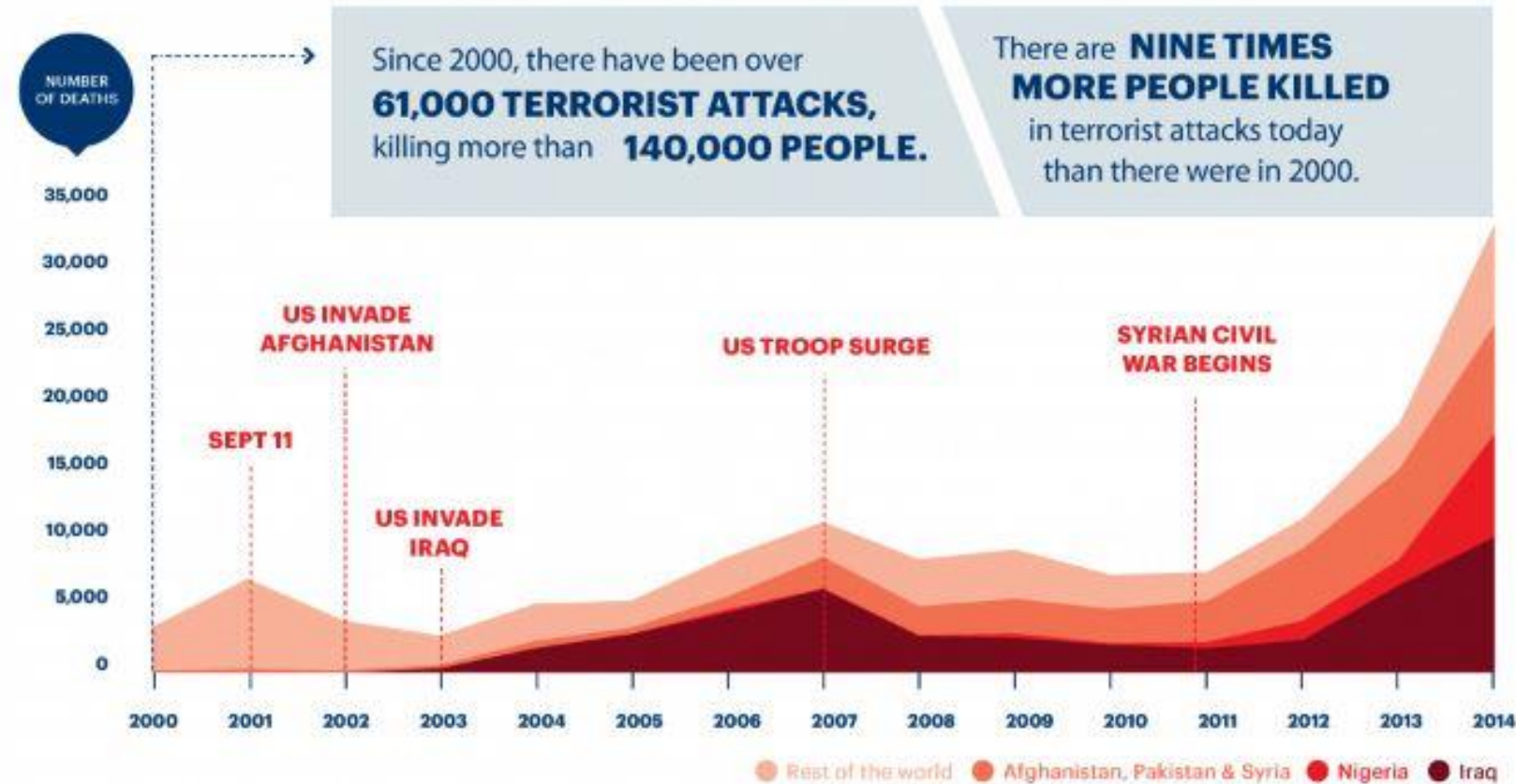
Top 10 Countries (Attacks) - November 2015-October 2016



Source: IHS Jane's Terrorism and Insurgency Centre

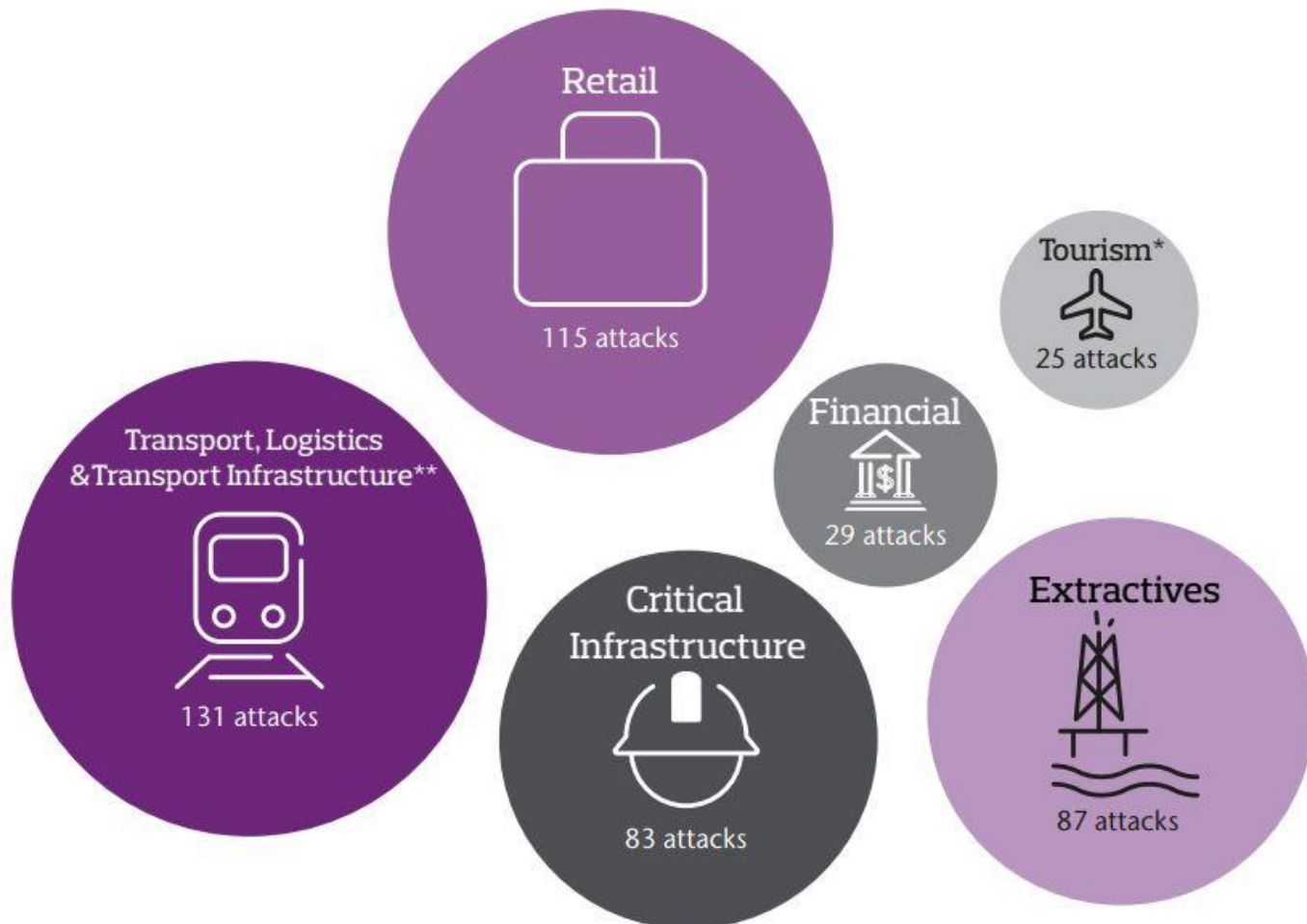
© 2016 IHS

Deaths Toll



Affected Business 2015

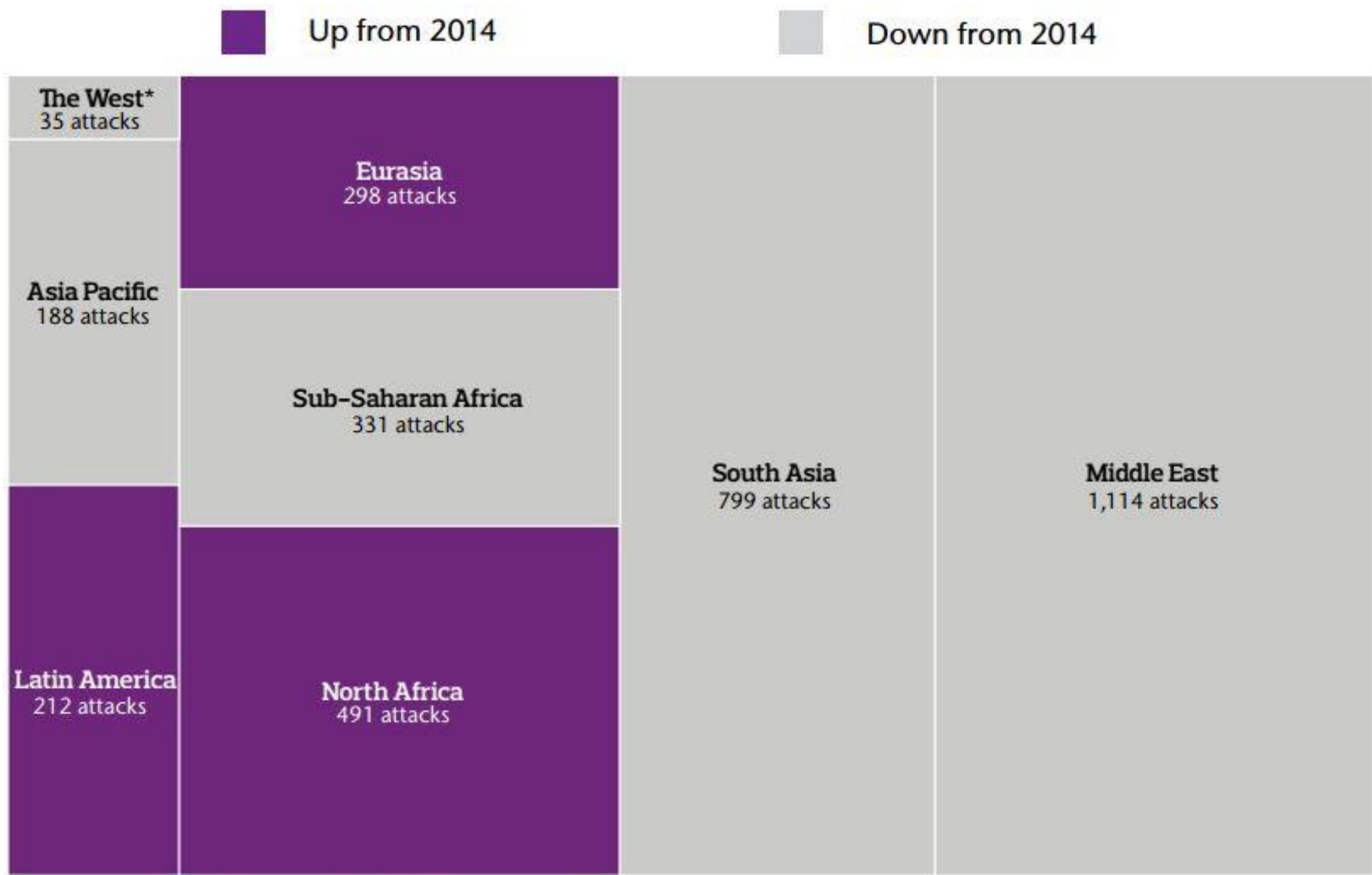
Top six targeted business sectors in 2015



**primarily hotels and resorts, and civil aviation*

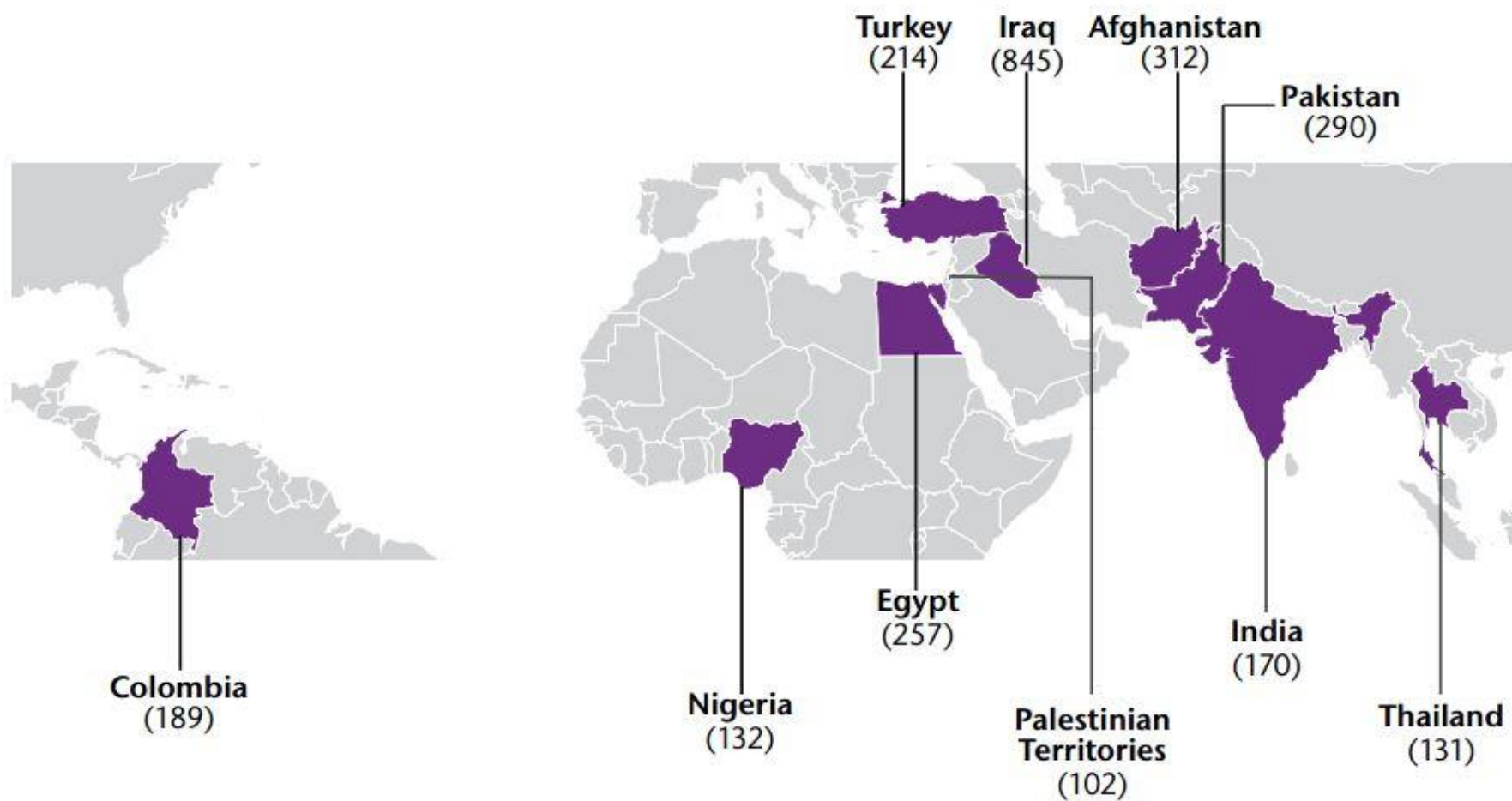
*** transport comprises mass-transposition, aviation, logistics and transport infrastructure*

Most active regions for terrorist attacks in 2015



* The West is inclusive of Western Europe and North America

Most active countries for terrorist attacks in 2015



Turkey



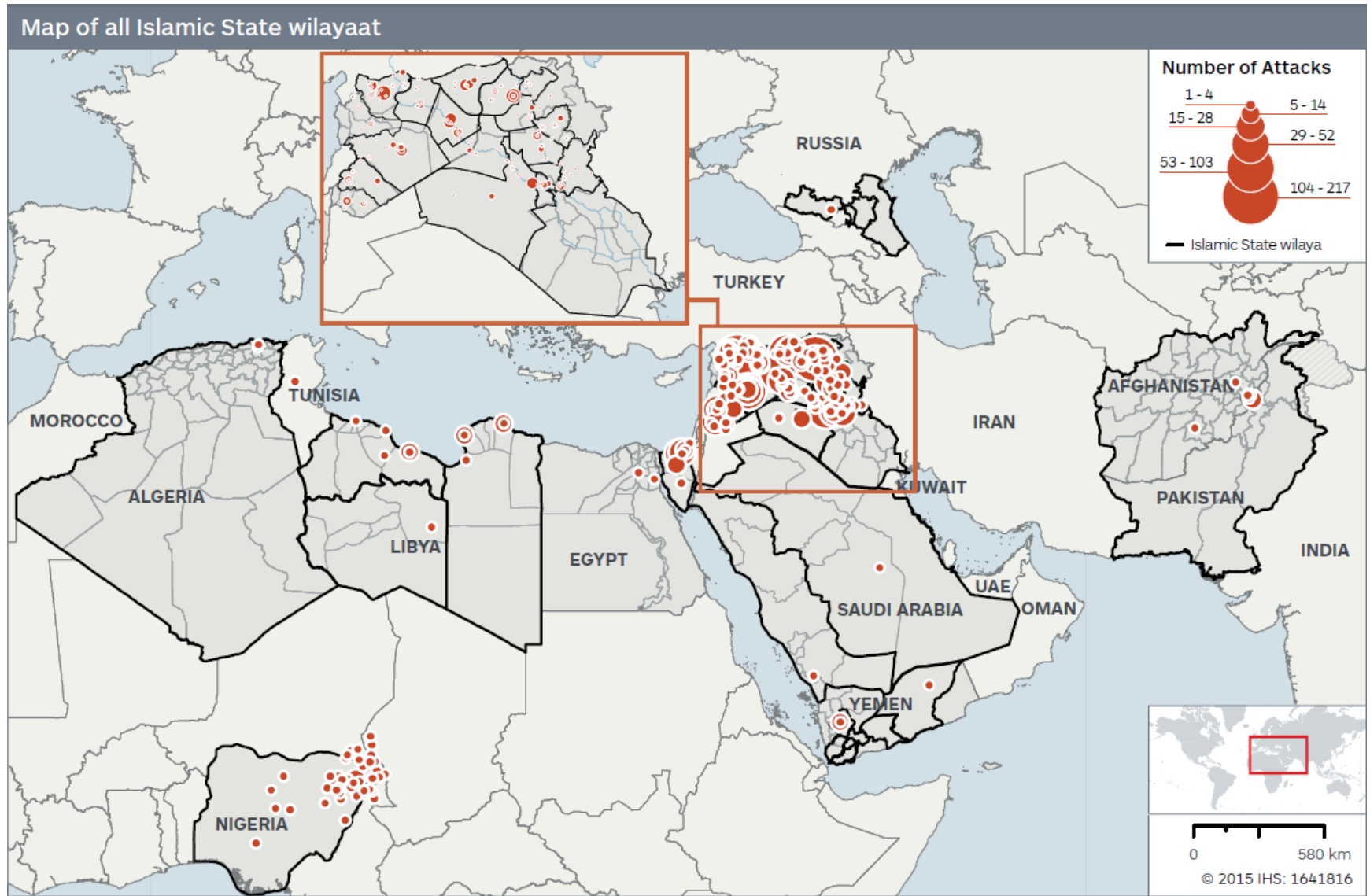
TPV Risk Rating: High (no change from 2015)

Key Belligerents: Islamic State (IS), Turkish Workers Party (PKK) and affiliated Kurdish militant groups (Kurdistan Freedom Falcons (TAK), Civil Protection Units (YPS)), the Revolutionary People's Liberation Front (DHKP/C) and Marxist extremists

Terrorism Casualties in 2015: 910 wounded, 272 killed (1,182 total)

Comparable Security Environments: Saudi Arabia, India, Israel

Islamic State worldwide attacks, Q3 2015



Implications

- Substantial shift in the use of Islamic State resources to reach Southeast Asia
- Increased likelihood that the Islamic State is preparing to declare a wilayat in Southeast Asia (Philippines)
- Few changes in local militants' capability
- Return of foreign fighters could improve local militant networks' levels of training and combat experience
- Threat posed by Islamic State will remain primarily linked to lone actors and small groups, either directly or indirectly encouraged, but not operationally supported, by the Islamic State

Daesch Caucasus links



Tarkan Bartirashvili, a.k.a. Omar al-Shishani, is credited with some of the so-called Islamic State's battlefield gains.

The Chechens aren't the largest group among the thousands of foreigners in Syria, but they may be playing an outsized role, as many, battle-hardened by years fighting Russian forces, help spearhead the Islamic State's sweeping successes through Syria and Iraq.



Omar al-Shishani
(Tarkhan Batirashvili)

1. Born in 1986 to a Muslim mother and a Christian Orthodox father in the Pankisi Gorge in Georgia, near the Chechen borders.
2. Joined the Georgian Army in 2006, fought against Russian forces in 2008, then dismissed after contracting tuberculosis.
3. A Saudi inmate radicalized Omar in prison, when serving a sentence for illegal possession of arms. He travelled to Syria upon his release in 2012.
4. In Syria, he established Jaish al-Muhajereen (Army of immigrants), a group of foreign fighters that split after Omar pledged allegiance to ISIS.
5. He rose in the ranks of ISIS due to his intelligent military planning.
6. Omar became ISIS' military commander after the death of Abu Abdul Rahman al-Anbari, the former Iraqi chief in the Mosul conflict.

Muslem Abu Al Waleed Shishani

(Murad Margoshvili)



1. Born in 1970, dubbed the 'Che Guevara' of Chechen fighters in Syria due to his 'good looks' and bravery.
2. Joined the Mongolian forces in the late 1980s during the Soviet rule.
3. An early fighter against the Russian forces, joined foreign Jihadists in 1995, till his capture in 2003.
4. Established Junud al-Sham, a group of foreign Jihadists fighting against Regime forces in the Latakia Province.
5. Strong connection to the Islamic Emirates of the Caucasus, sided with Zawahiri and Nusra against ISIS.

AKHMED CHATAEV: AN INCONVENIENT “FIGHTER AGAINST RUSSIA”



Share

226



Tweet

35



Share

3



Share

0



G+1

1



share

267

Donate



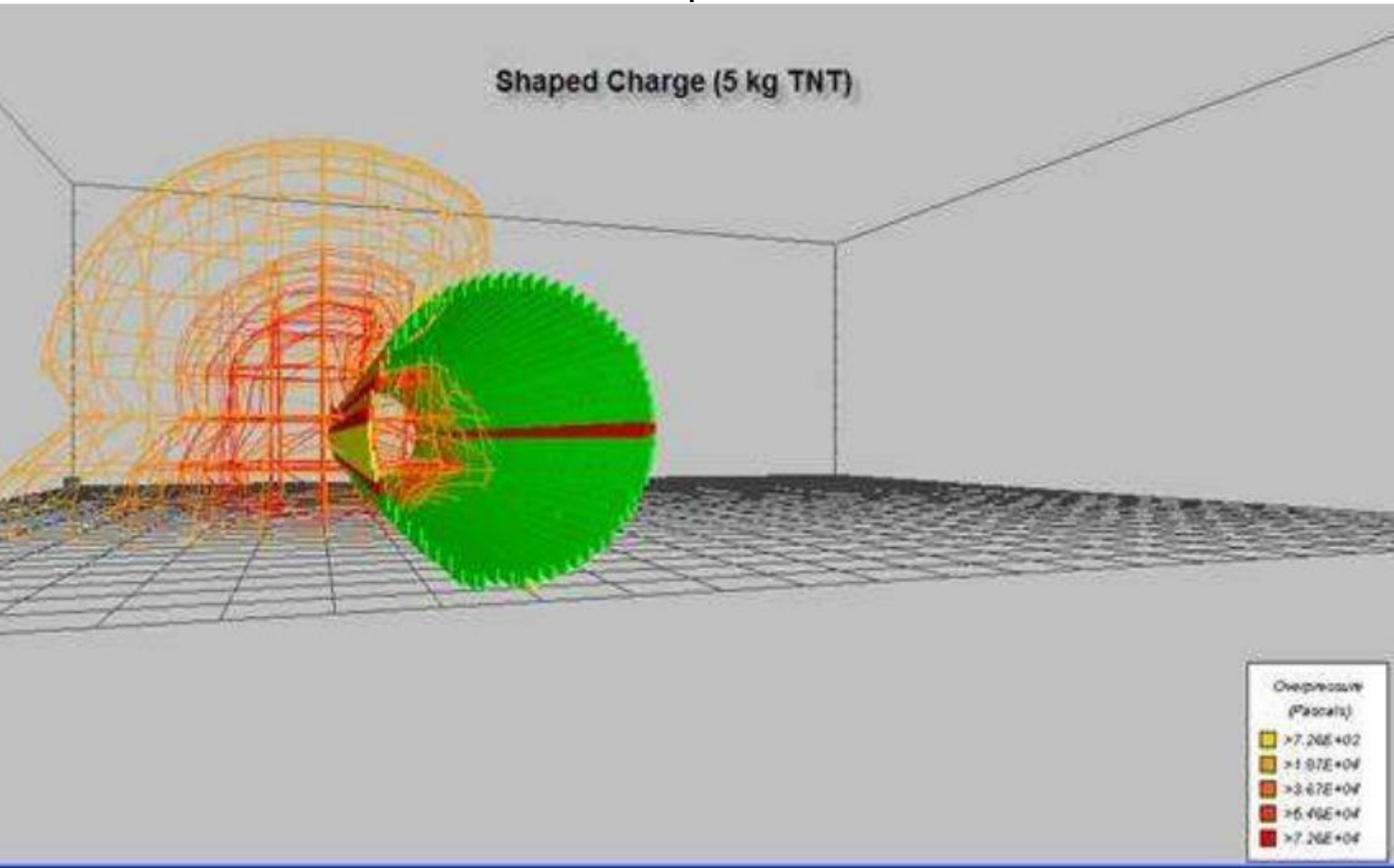
Original by [Boris Rozhin \(Colonel Cassad\)](#); abridged translation by J.Hawk

Threats against energy infrastructure

- Islamic State?
- Kurdish militant groups?
- Regional / local conflicts or war?
- 'transfer countries' stability (e.g. UKR)?

➔ Where is terrorism among these threats?

Structural damage (overpressure iso-curves) resulting from the detonation of a shaped charge (5 kg TNT) attached to a pipeline



Logistical requirements for a coordinated attack

Terrorist Action

Kidnapping/murder of employees

Logistical Requirements

- >5 armed terrorist
- 4WD vehicle
- Apartment as hide-out

1. Suicide truck bomb/car bomb convoy against drilling station

- >2 terrorists
- Truck
- 4WD vehicle
- 2,500 kg ANFO

2. Cover attack on auxiliary buildings

- >10 armed terrorists
- >3 4WD vehicles

3. Destruction of pipeline and compressor stations

- >2 terrorists
- 4WD vehicle
- Shaped charges

4. Attack on the communication system

- 1 terrorist (*hacker*)

suicide terrorist attack against an offshore platform

Terrorist Action	Logistical Requirements
1. Suicide attack with light general aviation (GA) aircraft with explosives onboard	<ul style="list-style-type: none">• 2 pilot terrorists• >400 kg of explosives• Chartered/diverted GA aircraft
2. Suicide attack with three high speed boats with explosives onboard	<ul style="list-style-type: none">• 3 chartered high speed boats• 3 pilot terrorists• >1,000 kg explosives in each boat
3. Covert underwater attack with divers and explosives	<ul style="list-style-type: none">• 5 specially trained terrorists• 100 kg explosives (shaped charges)• Mini-submarine or suicide torpedo[17]

Figure 2: Structural damage (overpressure iso-curves) to an offshore platform resulting from a suicide boat attack with 1,000 kg TNT onboard

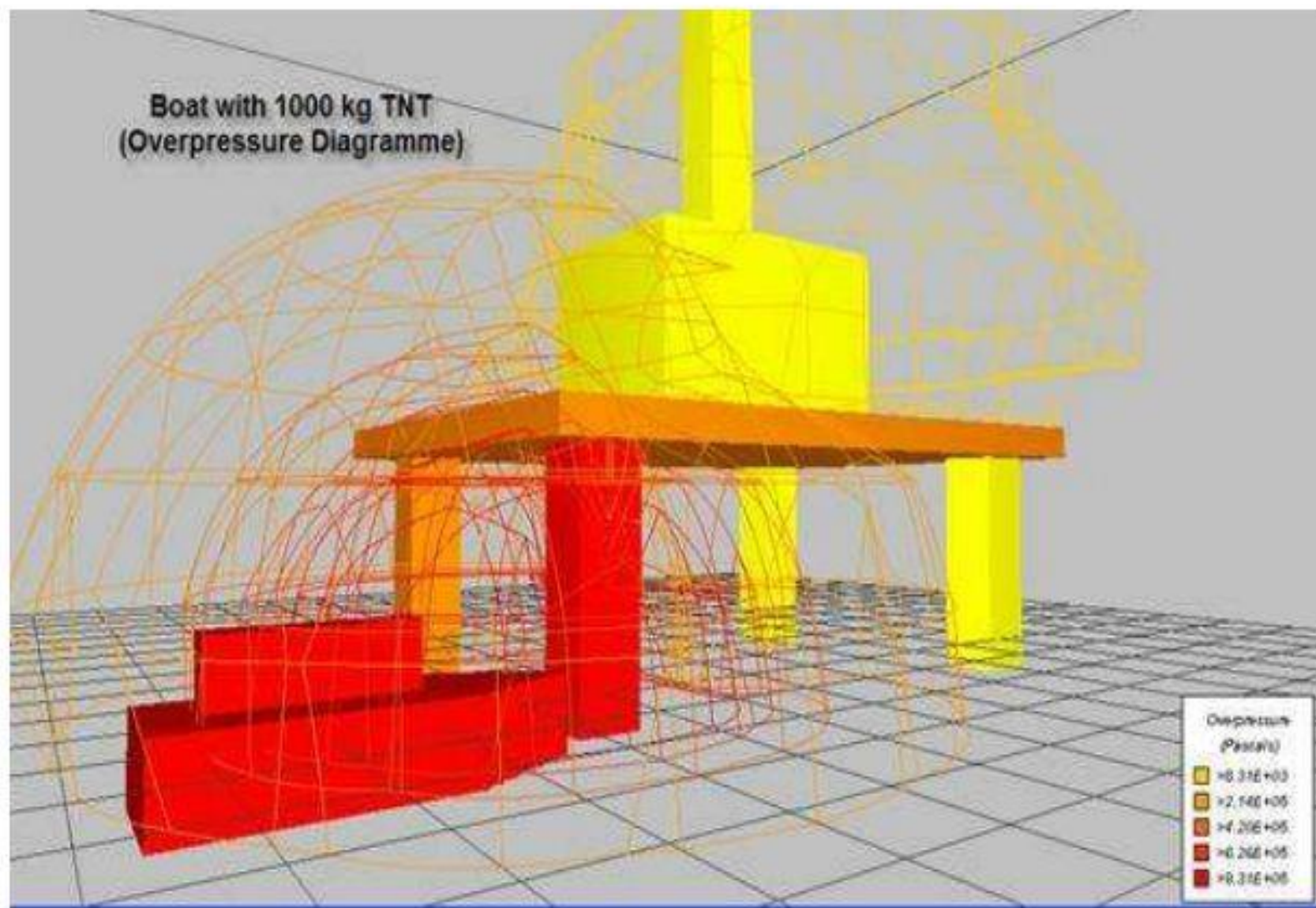
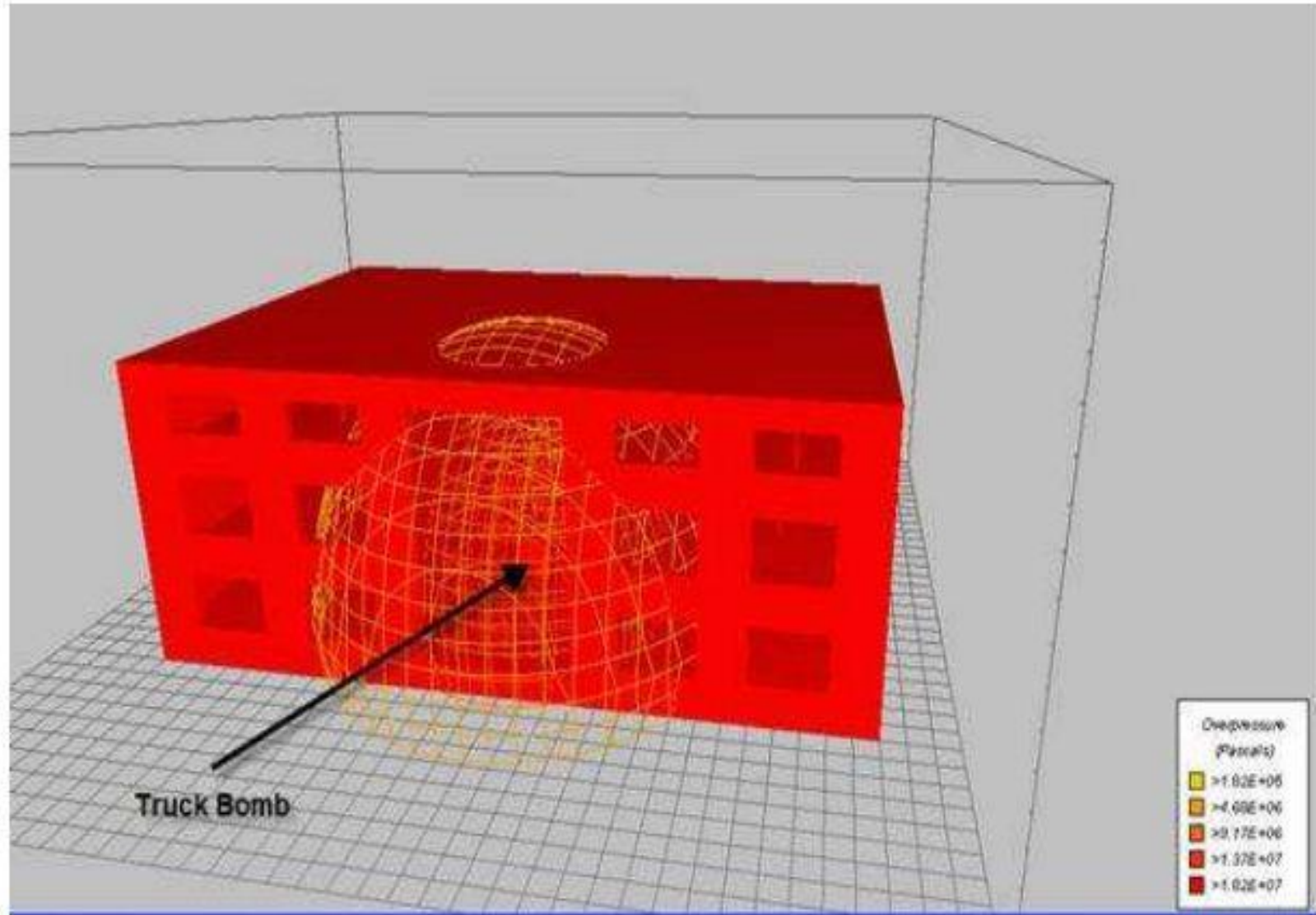


Table 3: Logistical requirements for terrorist attacks on the distribution- and retail sector of the oil and gas industry

Terrorist Action	Logistical requirements
1. Hijacking of a fuel truck and use as a weapon	<ul style="list-style-type: none">• >2 armed terrorists• Vehicle
2. Contamination of fuel with chemicals (e.g. Na, P) to ignite the cargo	<ul style="list-style-type: none">• 1 terrorist• Chemicals
3. Attack on a stationary fuel truck at a filling station	<ul style="list-style-type: none">• 1 terrorist• Explosives
4. Covert placement of an explosive/incendiary device on a railcar or fuel truck. Activation via remote control when truck reaches sensitive area (Aircraft, dense populated areas)	<ul style="list-style-type: none">• 1 terrorist• Explosives/chemicals
5. Attack on stationary railcars at depot	<ul style="list-style-type: none">• >2 terrorists• Vehicle• Rocket-propelled grenades (RPG)

Figure 3: Structural damage (overpressure iso-curves) to a multi-storey office building due to the detonation of a suicide truck bomb (8,000 kg TNT)



Consequences

- Neither intelligence services, nor military forces have been able to prevent terror attacks from happening
- several terror attacks on oil and gas installations have been foiled by well trained-and equipped security forces

Northern Iraqi oil pipeline attacked by PKK terrorists

'PKK terrorists attack Ceyhan oil pipeline that taking crude oil from northern Iraq. Repair process has started,' says Turkey's Ministry of Energy



Photo by: Reuters

Thank You