



**CEGOV**

CENTRO DE ESTUDOS INTERNACIONAIS  
SOBRE GOVERNO

**STRATEGIC INTELLIGENCE**  
**NUCLEAR DETERRENCE**  
**COUNTERTERRORISM**  
**PEACEKEEPING**

**Marco Cepik**



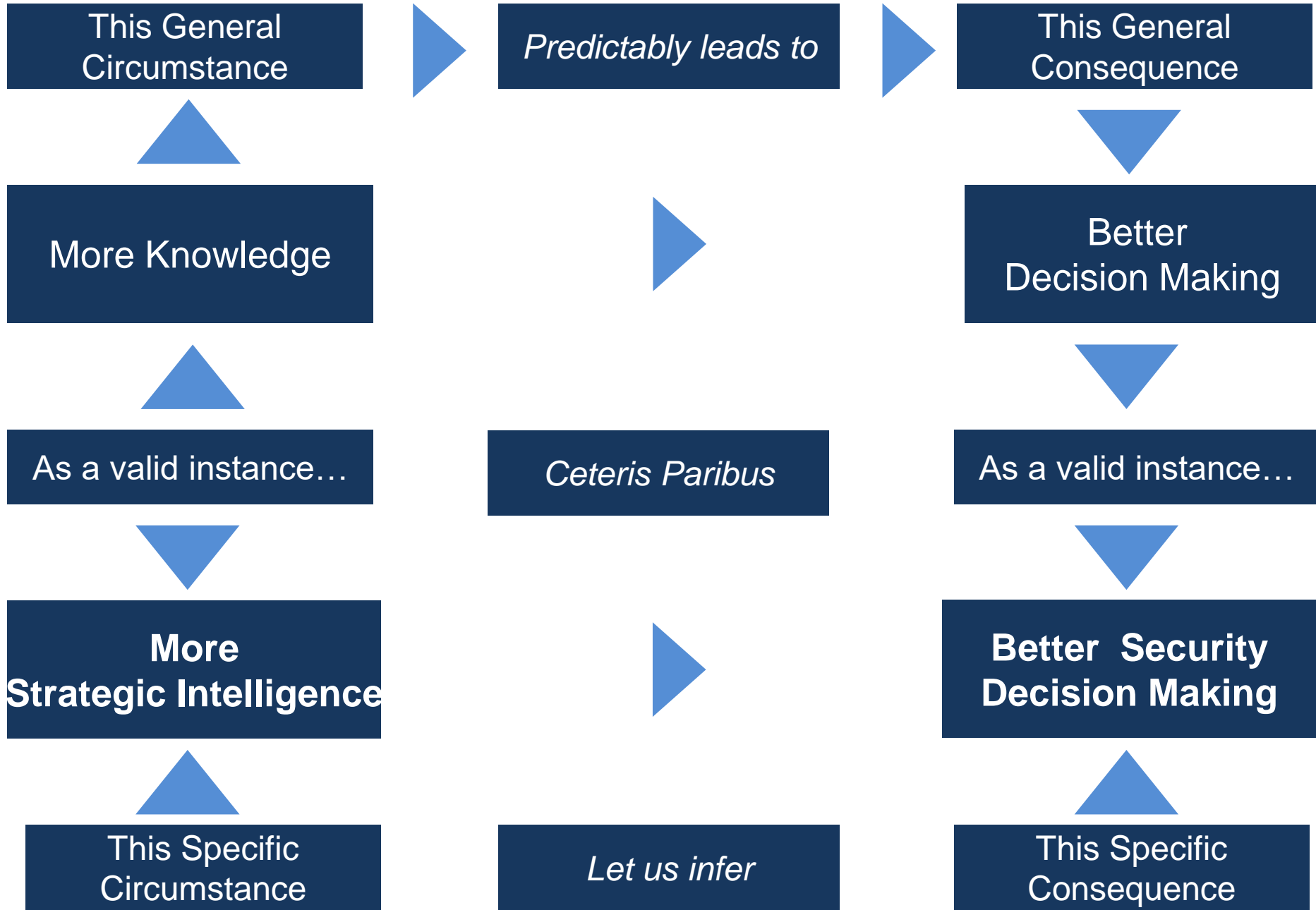
# CONTENTS

- 1. MAIN CLAIM**
- 2. CONTEXT**
- 3. STRUCTURES**
- 4. NUCLEAR DETERRENCE**
- 5. COUNTERTERRORISM**
- 6. PEACEKEEPING**
- 7. CONCLUSION**



1

**MAIN CLAIM**



# Acknowledge Limitations to Claim:

- Strategic Intelligence Analysis (SIA) aims to reduce, but never to eliminate uncertainty from the decision making process.
- Intelligence is one information flow among others; humans devise various social mechanisms to cope with asymmetries and uncertainties involved in collective decision.
- Intelligence is knowledge AND power. Truth serves victory and survival in this realm.

# Within these boundaries:

- Strategic Intelligence Analysis (SIA) is important because it may supply synthetic evaluations (probabilistic estimates and structured scenarios) about medium to long term trends involving conflictive interactions between multiple actors, structures, and contexts.

# Two questions arise:

1. Why non-government groups, firms, national governments, and international organizations face tradeoffs between strategic and tactical uses of intelligence?
2. What are the potential consequences of neglecting strategic intelligence analysis?

# First hypothesis:

1. Collective actors face time and resources constraints to decide and act upon perceived threats. Therefore, they have a strong incentive to **trade long term interpretative knowledge for more hard evidence based, actionable intelligence** of tactical and operational nature. Current technology trends favor collection capabilities. But, even if strong artificial intelligence (AI) change it in favor of analysis, the tradeoffs between short and long term will remain.



# Second hypothesis:

2. International security is not governed by automatic processes of mutual adjustment, like security dilemmas or arms races. Choice and chance are pervasive, given structural and contextual frameworks for continuous interactions as time passes unstoppably. Each actor has to care for their own survival and goal achievement, but the actual results of peaceful and violent interactions are intrinsically hard to predict. In Clausewitzian terms, since combat remains the essential activity in war, tactical and operational intelligence are always in great demand. **However, the political nature of war and peace makes strategic intelligence analysis a requirement for any actor. To neglect it amounts to reducing the chances of being relevant, winning, or surviving.**

# Research Design:

- The hypotheses can't be directly tested.
- Instead, the research does four things:
  1. Offers realistic definitions of security, threat, intelligence and SIA
  2. Articulates contextual, structural, and interactional aspects of international security dynamics.
  3. Provides additional reasoning and corroborative evidence from three areas of contemporary international security (nuclear deterrence; terrorism; peacekeeping).
  4. Recommends how to assess the analytical quality of SIA.

# Why these three areas?

**Steinbruner** (*The Cybernetic Theory of Decision*, 2002):

- All experimental evidence in Cognitive Psychology and the adaptive processes in evolution seem to contradict the assumed use of analytic logic in human interactions, including in international security.
- However, analytic logic is a better shared belief than faith, so people fall back to it to solve problems and, therefore, it becomes a stable basis for collective behavior.

# Why these three areas:

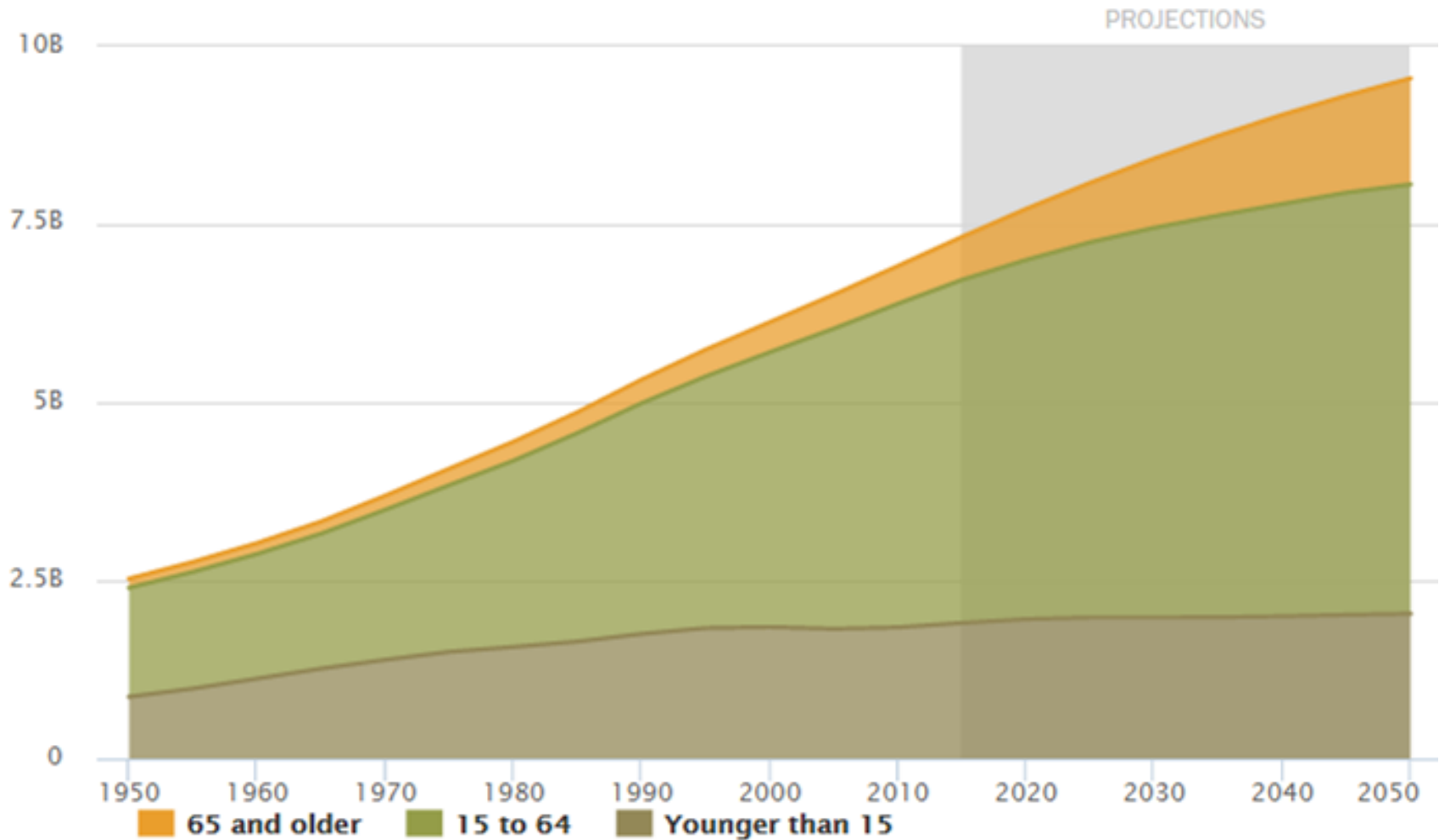
- More important, there are many scenarios in which uncertainty is so radical that counting only on adaptive processes for survival becomes impossible. In these situations, the most decisive element for evolution is the degree of cooperation reached.
- Other things been equal, the level of the cooperation varies according the knowledge actors have about their own standing, as well as about each others'.
- Nuclear deterrence between Great Powers, international terrorism and counterterrorism, and multidimensional UN peacekeeping were selected **because they strongly challenge cooperation, presenting higher global risks to collective security in the next decades.**



2

# CONTEXT

# Global population by age, 1950-2050



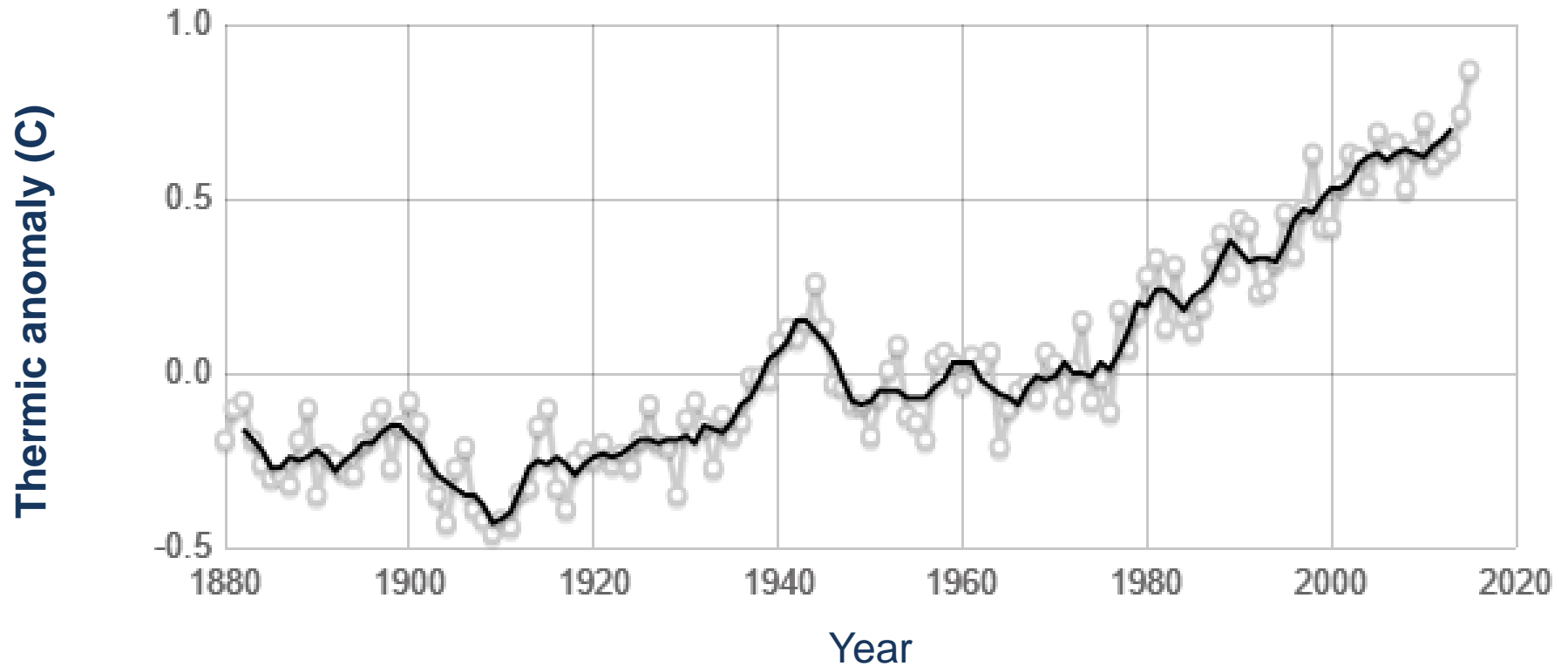
**Source:** United Nations, World Population Prospects: 2012 (Revised June 2013).

# Demographic transition

- Transition of high fertility and mortality rates to ones close to or below the replacement level of the population (2.1 children per woman). UN forecast: from 7 billion in 2011 to 9 billion in 2040. Growth is slowing down, most of it will occur in Africa and Asia. Relative aging (average age over 45 years) in the richest countries. 60% of the world's population will be urban by 2030.
- **Uncertainties and risks:** How will developing countries deal with the demographic bonus and / or the pressure of accelerated urbanization? How will the central capitalist countries deal with the increased scale of migration? What are the effects of population growth on resources, misery, inequalities and intra and interstate conflicts?

# Temperature change of the world's surface

In relation to average temperatures between 1951-1980



Source: [climate.nasa.gov](https://climate.nasa.gov)



# Climate change

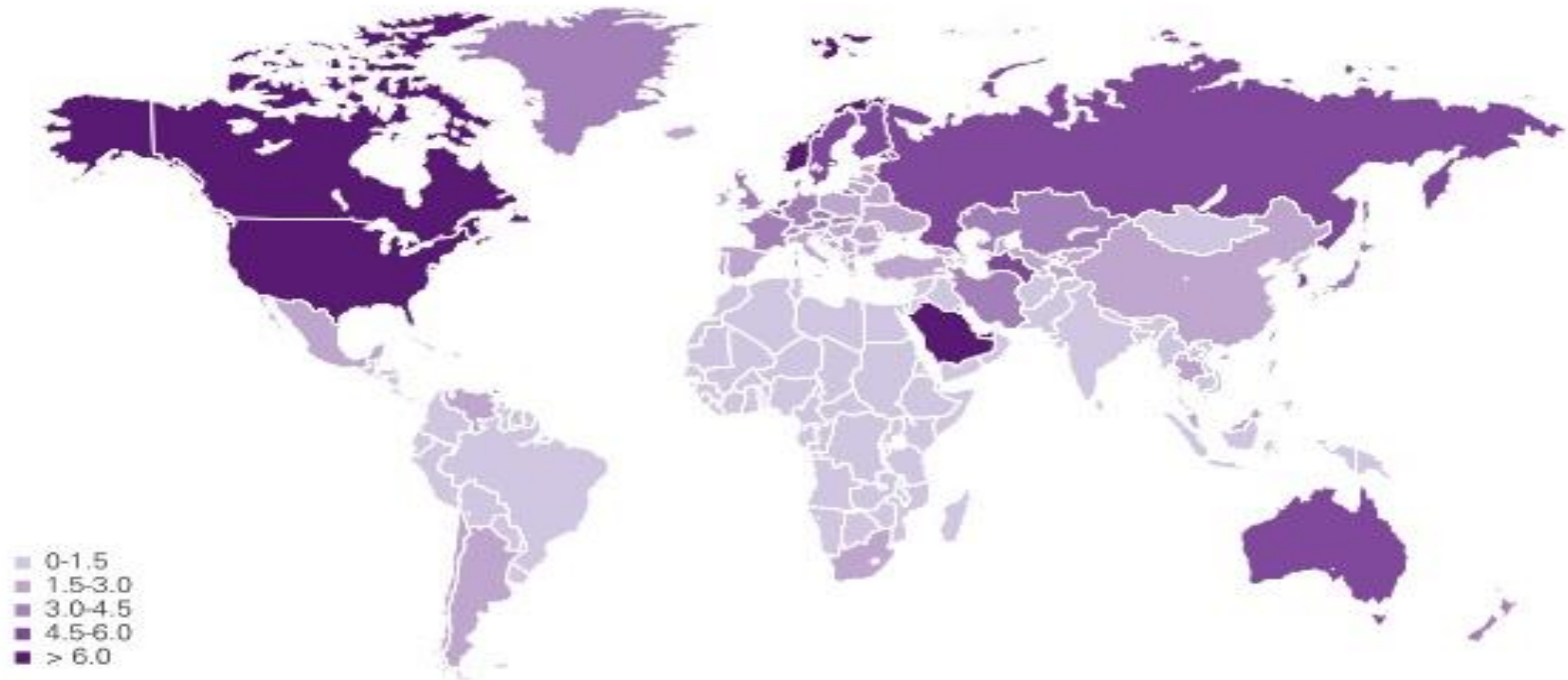
- Change in the statistical distribution of weather patterns at different temporal and spatial scales. Causes range from ecological and geological factors to variations in solar radiation. Human factors include deforestation, pollution, degradation, and global warming. Average temperature rises due to increasing rates of greenhouse gases (e.g. methane and carbon dioxide) in the atmosphere.
- **Uncertainties and risks:** Effects of sea level rise due to the melting of the polar caps; acidification of the oceans, reduction of marine and terrestrial faunas; extreme temperatures and storms and other natural disasters around the globe; water scarcity and reductions in world agricultural production (Climate Council, 2015).

# Climate change

- Effects of climate change are unequal among nations and are potential causes of conflict.
  - Directly (control over resources) or indirectly (unequal vulnerabilities).
- Temperature change predictions range from 0.3 to 1.7 °C, and from 2.6 to 4.8 ° C. Even the most optimistic predictions would lead to effects with high potential of conflict.
- Monitoring and analyzing these effects are crucial for international security.

# Energy consumption per capita 2013

Primary energy consumption per capita 2013  
Tonnes oil equivalent



BP Statistical Review of World Energy 2014  
© BP 2014

# Energy Transition

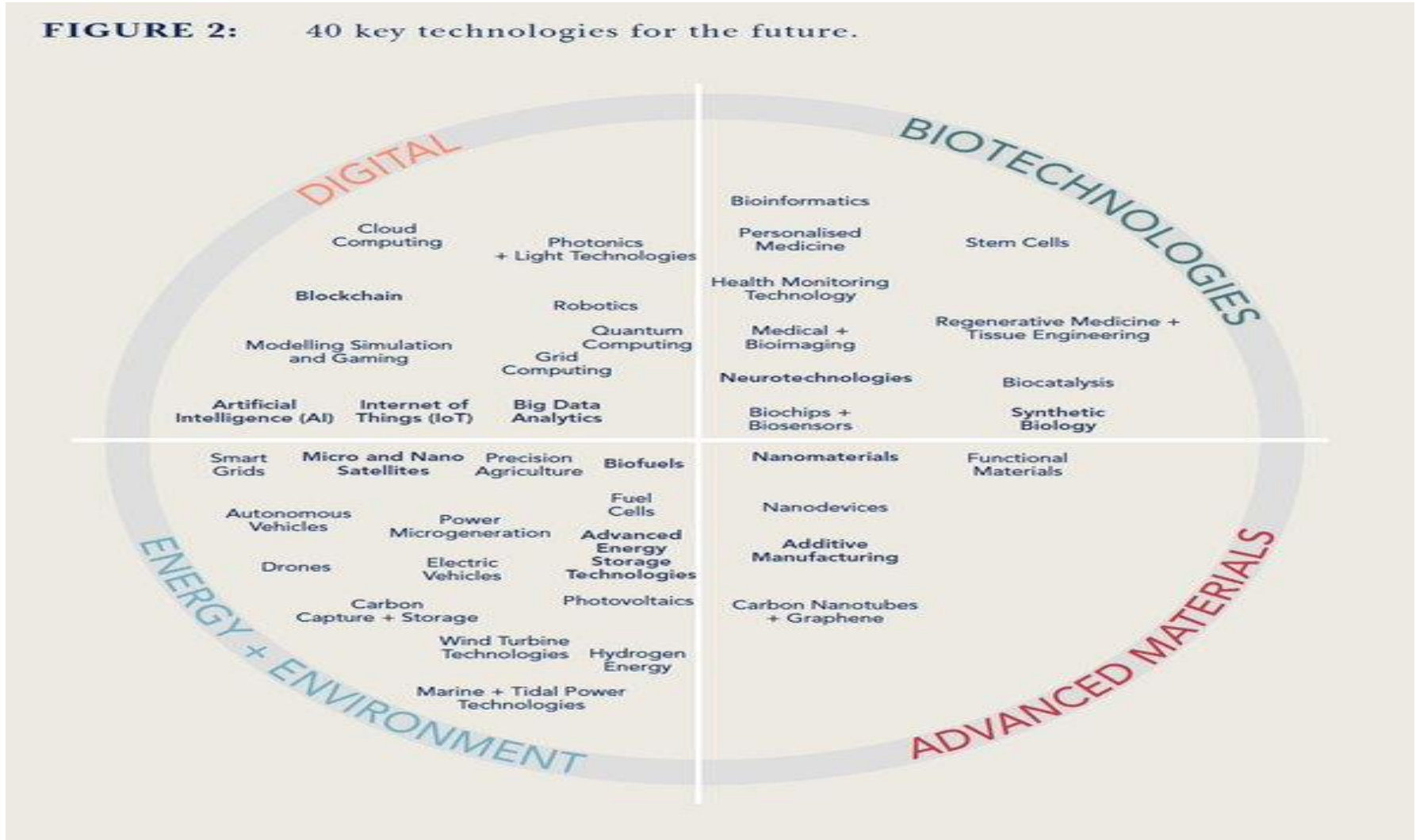
- Transformations in public policies, raw materials and technologies used for the production, distribution, storage and consumption of energy. Matrix based on fossil fuels for sustainable matrix.
- **Uncertainties and risks:** Distributive conflict at the national, regional and global levels on energy consumption patterns, access to resources and technology, strategies on world fossil fuel reserves and energy matrix profile.

# Energy Transition

- One in every five people do not have access to electricity, and three billion depend on coal to cook their food.
- OECD countries consume 41.6% of the world's electricity. Africa consumes 3.3%.
- Challenges: to provide electricity to the world's growing population (mainly in Africa and Asia); conflict and geopolitical divergences in oil producing regions (Middle East).

# Technological Trends 2018

**FIGURE 2:** 40 key technologies for the future.



# Technological Transition

- Flows of innovations that revolutionize production and consumption, capacity of interaction (communication and transportation), organizational forms and social relations, including political-military. Convergence between digital, biological, energetic and material technologies. Annual global IP traffic increases from one zettabyte in 2016 to 2.3 ZB in 2020, when there will be 3.4 connected objects for every inhabitant of the planet (CISCO VNI, 2015).
- **Uncertainties and risks:** technological transition mitigates effects of demographic and climatic transition? Exponential growth of inequalities or horizontalization of capacities? Effects of robotization, 3D printing, artificial intelligence, biotechnology and nanotechnology on war and on economy.



**3**

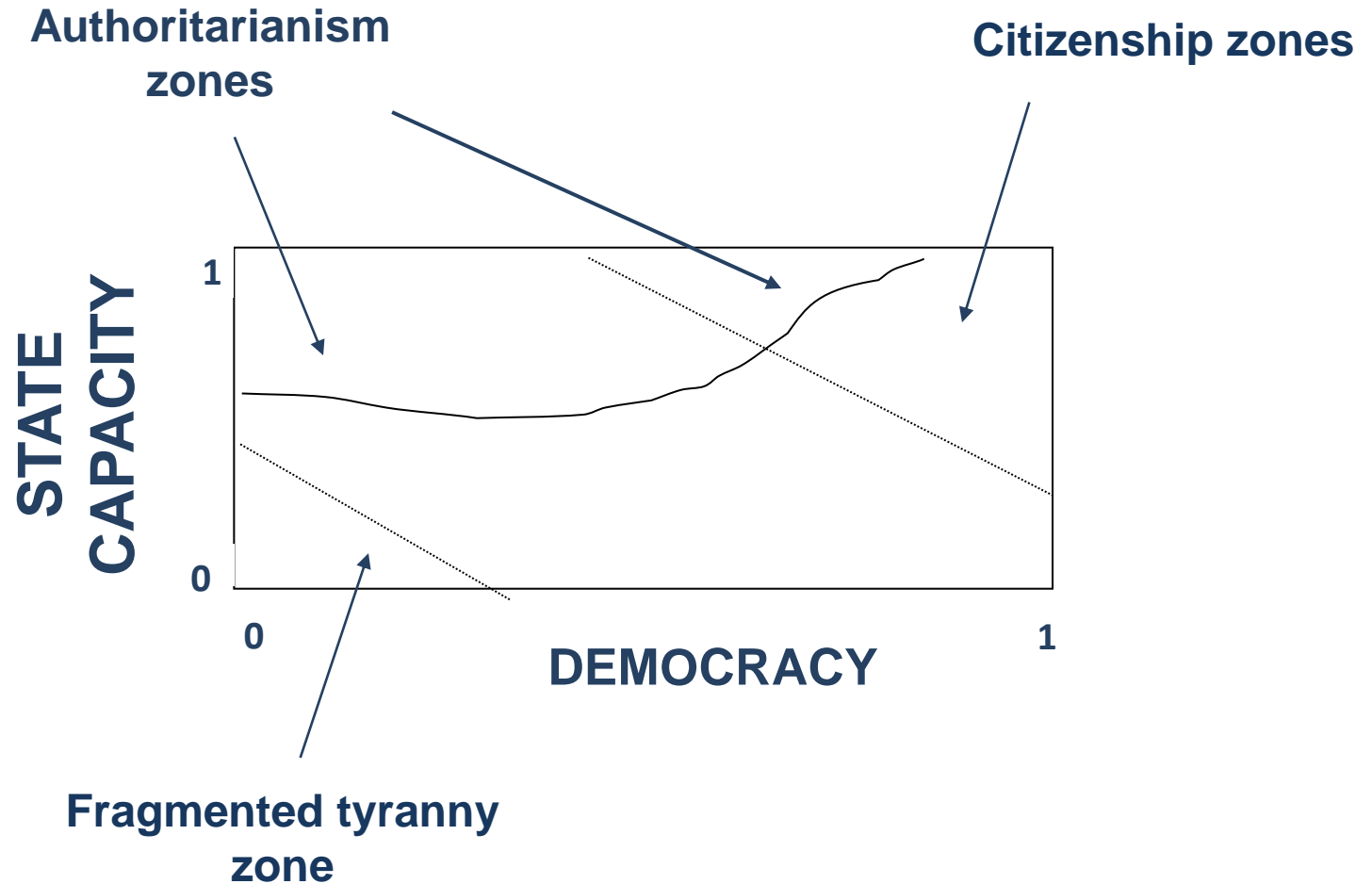
# **STRUCTURES**



# Types of Structure

- International Political System
- International Economic System
- National Political System...

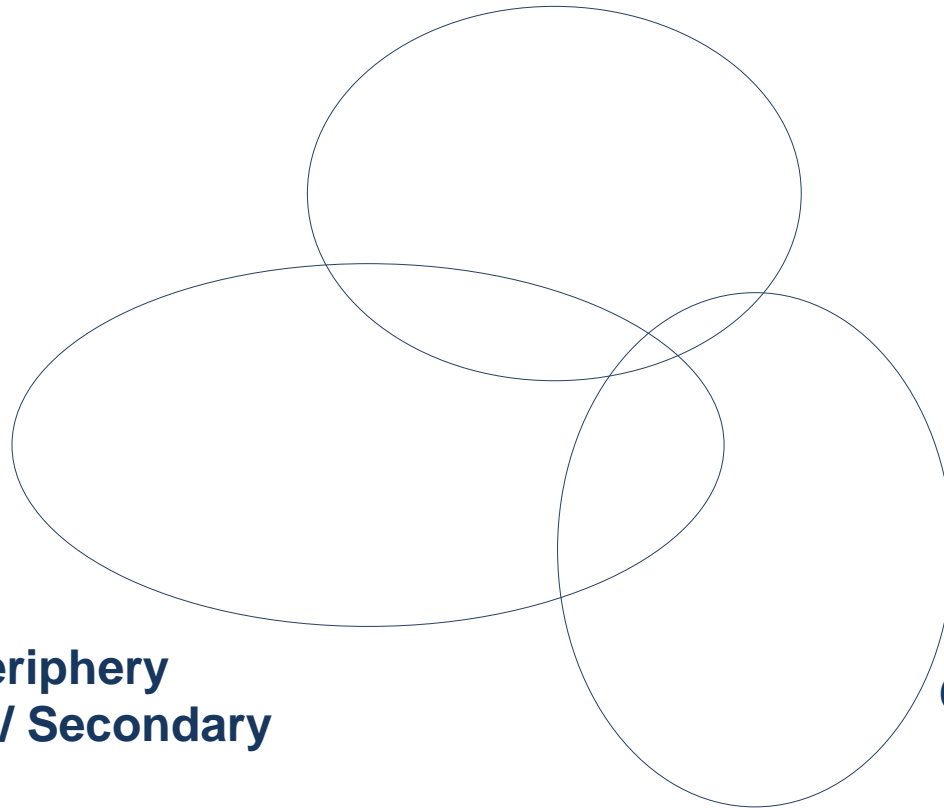
# Civitas in the International System



Source: TILLY (2003).

# Semiperiphery in Capitalism

**Organic core  
Innovation / Knowledge**

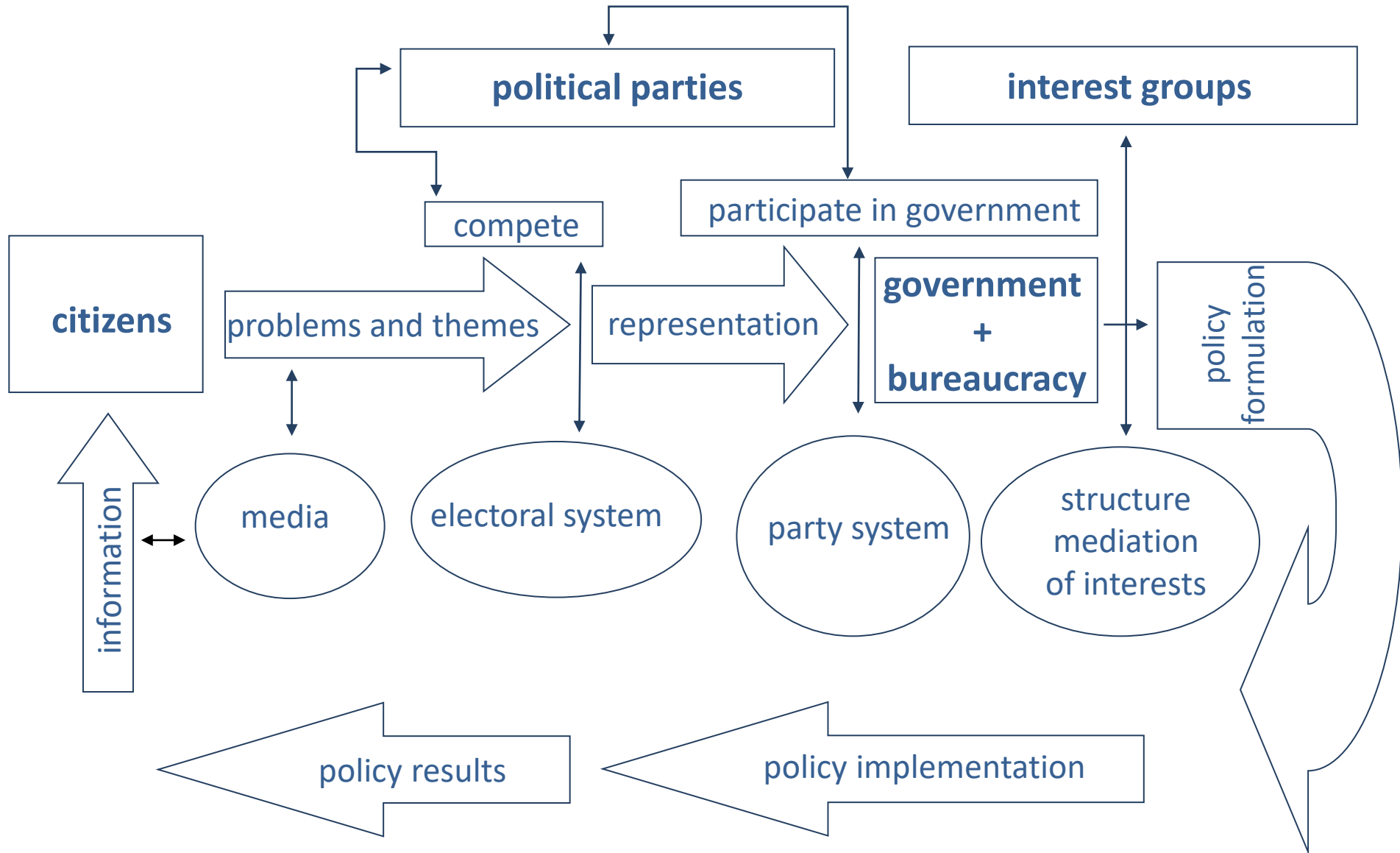


**Semiperiphery  
Production / Secondary**

**Periphery  
Consumption / Primary**

*office-seeking*

*policy-seeking*



# Capabilities

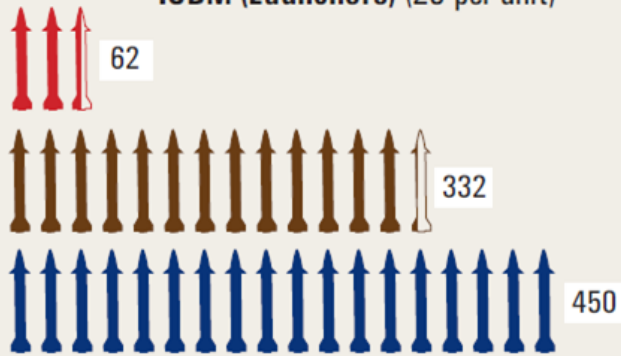
- The capacity to achieve ends is an attribute of each unit.
- Survival is a precondition (security and well-being).
- Capability distribution is structural (Waltz, 1979).
- Great Powers concentrate diverse capabilities.
- Degree of power concentration: multi, bi or unipolar.
- Power: capacity to achieve ends (absolute gains) and to impose limits on other units (relative gains).
- The relational dimension of power is negative (detering) or positive (compelling).
- Specific military capabilities (Mearsheimer, 2001) and how to use them (Biddle, 2004) are decisive in conflict between units (polarization).

# Nuclear Capabilities

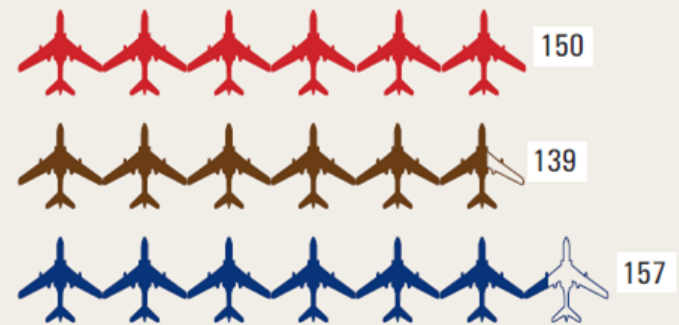
- The security of a country with nuclear systems, but without robust C2 capabilities and early warning is diminished (Diniz, 2016).
- Nuclear Second Strike Capability: capacity to retaliate a nuclear strike with a second nuclear strike, making attacking costs greater than the benefits.
- Strategic Triad: nuclear warheads, nuclear propelled submarines ballistic missile launchers (SSBN) and strategic bombers (ALCM).

# Nuclear Capabilities

ICBM (Launchers) (25 per unit)



Bomber aircraft (25 per unit)



Ballistic-missile nuclear-powered submarines (10 per unit)



Source: IISS,  
2016

# Nuclear Capabilities

Estado	Ogivas	Bombardeiros	SSBN	ICBM	Capacidade de Segundo Ataque
China	250	120	4	66	yes
France	300	0	4	0	no
India	110	0	5	0	no
Israel	80	0	0	0	no
North Korea	8	80	0	0	no
Pakistan	120	0	0	0	no
Russian Federation	8000	141	11	356	yes
United Kingdom	225	0	4	0	no
United States	7300	154	14	450	yes

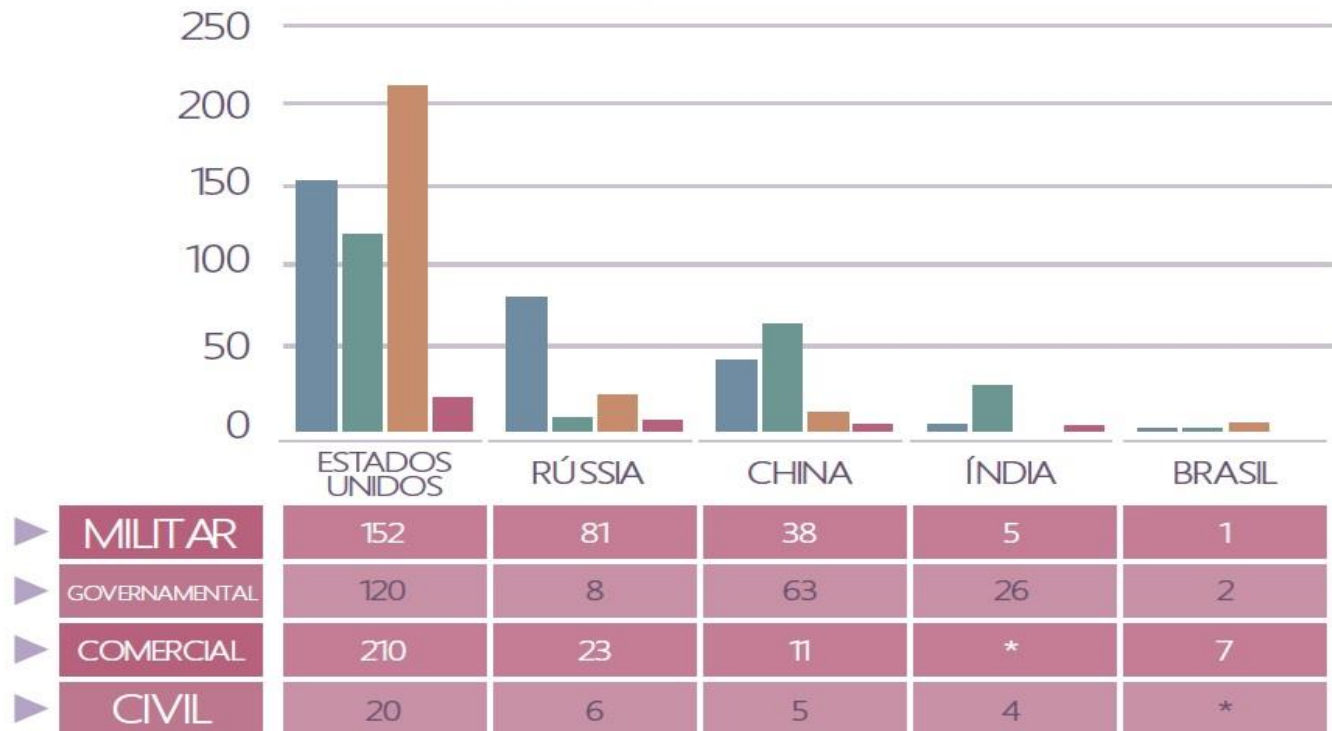


# Space Capabilities

- Space Command: a country's capacity to ensure the use of its outer space assets in the face of an opponent's attempt to interfere (Klein, 2006)
- Percentage of total number of satellites (UCS, 2014):
  - USA: 42%
  - Russia: 11%
  - China: 9%

# Space Capabilities

Gráfico 1 - Número de satélites por segmento de atividades



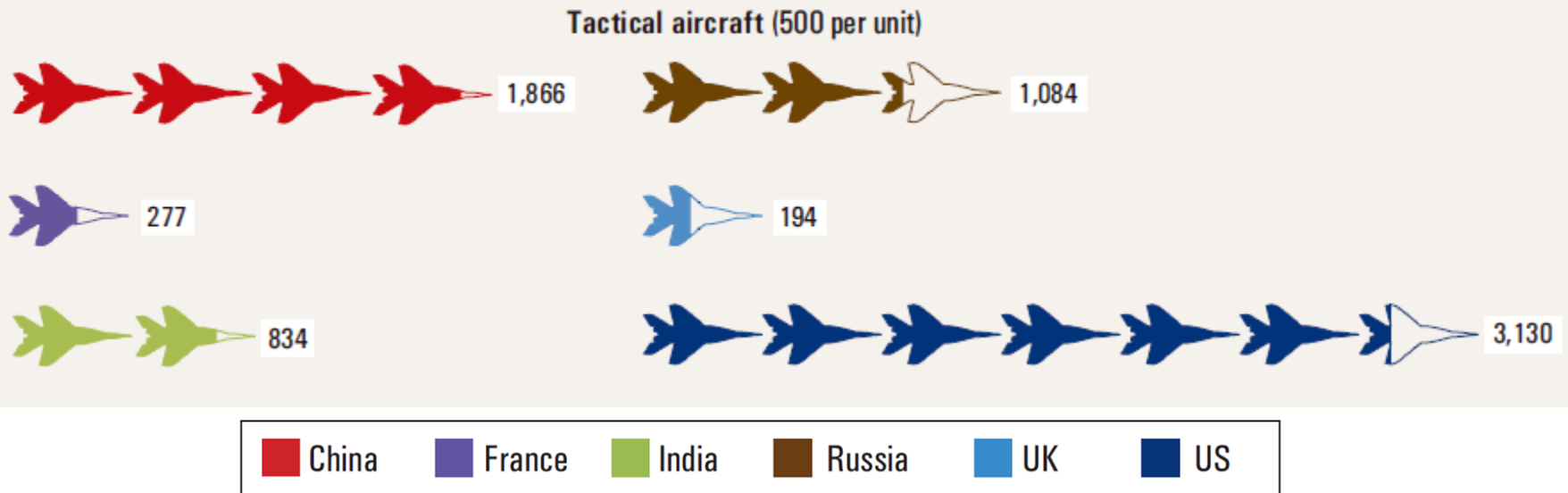
\* Sem dados

Fonte: UCS Satellite Database, 2014 .

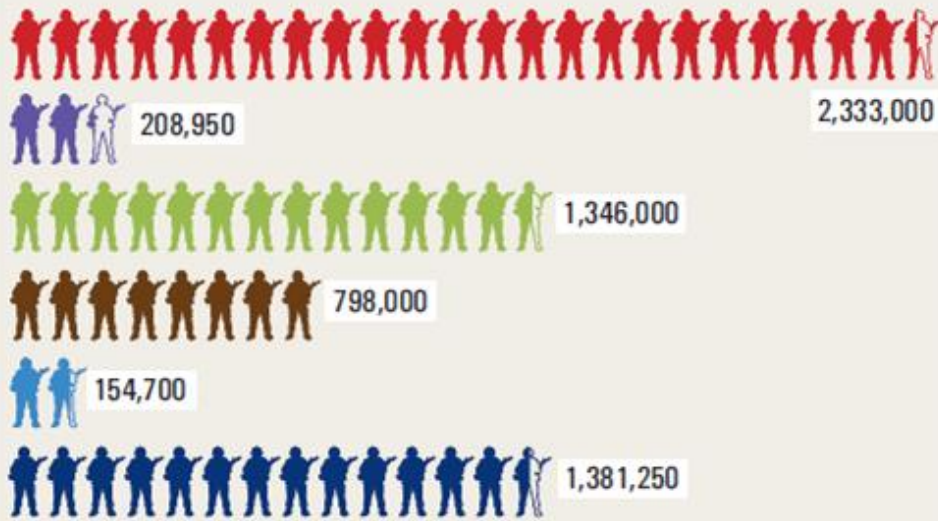
**Source:** Cepik et al,  
2015

# Conventional Capabilities

**Inexpugnability:** possession and mode of employment of conventional capacities that preclude the support of invasion and territorial conquest by any other state in the international system.



### Active personnel (100,000 per unit)



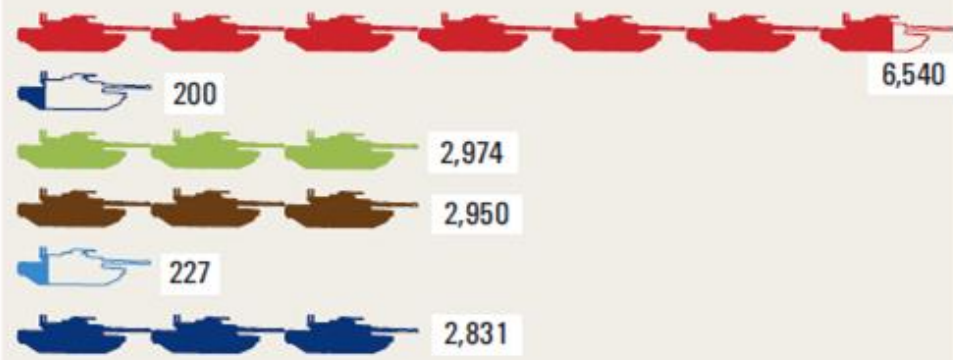
### Reserve personnel (100,000 per unit)



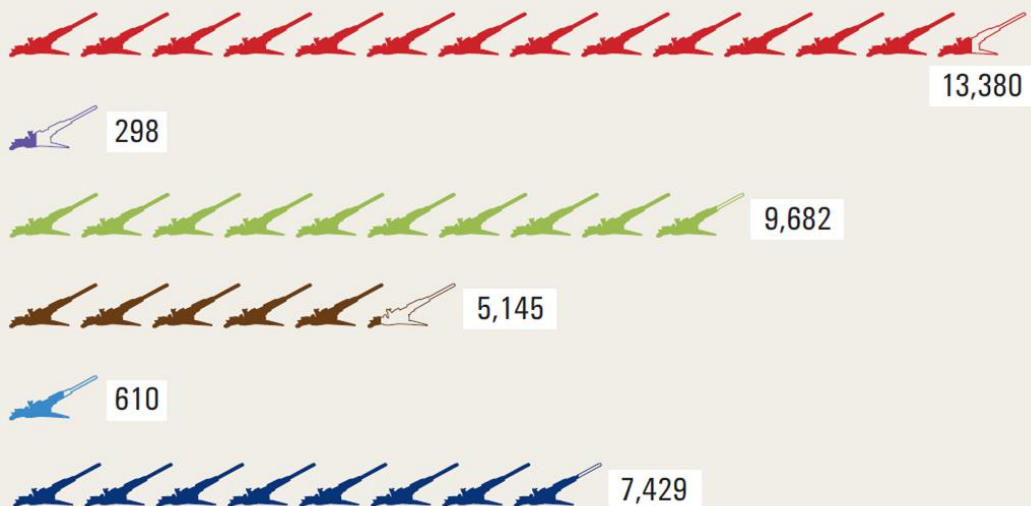
### Armoured infantry fighting vehicles (1,000 per unit)



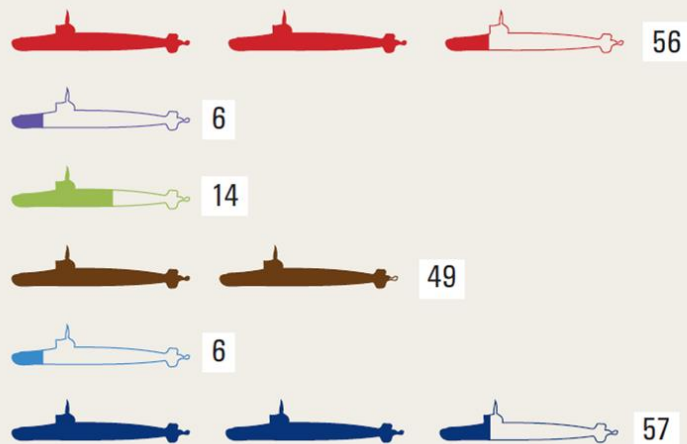
### Main battle tanks (1,000 per unit)



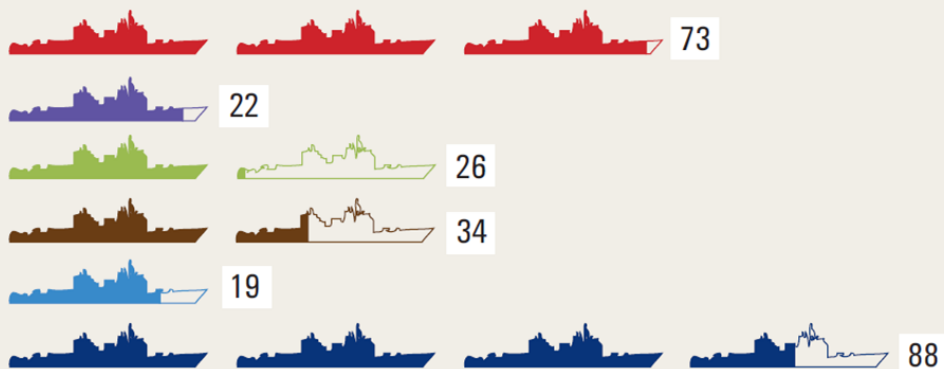
### Artillery (1,000 per unit)



### Attack/guided missile submarines (25 per unit)



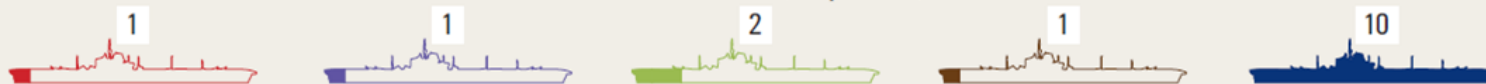
### Cruisers, destroyers and frigates (25 per unit)



China France India

Russia UK US

### Aircraft carriers (10 per unit)



4

# NUCLEAR DETERRENCE

# Problem:

- Nuclear deterrence and Mutual Assured Destruction as peaceful *status quo ante*.
- End of Anti-Ballistic Missile Treaty (ABM) and implementation of National Missile Defense (NMD) widely perceived as a revisionist move.
- After the New START:
  - USA: 54% to 93% of strategic arsenal mobile
  - RUSSIA: 60% of strategic arsenal based in air and sea
  - CHINA: 44 missiles (92 warheads) to hit USA
- Who would start a nuclear war with the USA?

# Intelligence Issue?

- Since Cold War: how to find ICBMs/SLBMs/ALBMs ?
- Lieber; Press (2006): Nuclear Primacy is the goal
- Li Bin (2006): conceal and decoy to assure survival
- Long; Green (2014): RQ-170/UGS/TTL/SATS got it
- NMD to succeed requires SEAD and NIA/D3
- Lieber; Press (2013): strategic primacy (nuke/conv.)
- Biddle; Oelrich (2016): force projection to what?



# Risk to neglect SIA?

- Etzioni (2013): dissociation of political and military operation formulations; lack of accountability
- Christensen (2012): potential for nuclear escalation
- Montgomery (2017): China's aggression in Asia?
- Triangular relations between United States, China, and Russia are not a strategic intelligence problem only for them, but for the whole world
- To neglect SIA about it amounts to increase risks of being entangled in a conflict without serious preparation

**5**

# **COUNTERTERRORISM**

# Problem:

- Terrorism features preeminently in all lists of contemporary non-traditional threats, even along with different nature phenomena, like organized crime (“predator x parasite”).
- Pape; Feldman (2010): from 350 suicide attacks (1980-2003) to 1,833 (2004-2009), 92% anti-American.

# Problem:

- Start (2016): 37,752 terrorist attacks in 1986-2000, against 72,434 in 2001-2015.
- In 2015, there were 29,376 terrorism-caused deaths (10% lower than in 2014); however, around 70% of all of them were in five specific countries (Iraq, Nigeria, Afghanistan, Pakistan and Syria)

# Intelligence Issue?

- Focus is to anticipate attacks and defeat groups.
- Is there a regional and target type concentration in this increased occurrence of terrorist attacks?
- Are there any causal relations between the military interventions and the increasing in terrorist attacks?
- Is prevention working? Is GWAT working?
- Europol (2016): 1,077 arrests charged of terrorism
- How wide is the gap between threat perception and actual risk due to the nature of terrorist use of force?

# Risk to neglect SIA?

- Keep fighting the next group endless.
- Either overspending or underestimating the threats.
- Further imbalance freedom and security in democratic countries
- End up with more authoritarian regimes worldwide
- Accept terrorism as a component of “civilization clash”
- Elect people who believe that terrorism results from alternative facts: “Muslims hate western way of life”.

# Search Google Scholar Feb 20 2017

- “Terrorism” anywhere in the document: **1,130,000** results in 0.07 seconds ([goo.gl/GZawC4](http://goo.gl/GZawC4)).
- “Terrorism / “Strategic” / “Intelligence” / “Analysis” together, anywhere in the document: **258,000** results in 0.11 seconds ([goo.gl/zjoOJc](http://goo.gl/zjoOJc)).
- “Terrorism” in the title: 93,800 results in 0.07 seconds ([goo.gl/TZFQx5](http://goo.gl/TZFQx5)).
- “Terrorism / “Intelligence” / Analysis” in the title: **35** results in 0.06 seconds ([goo.gl/NbeXid](http://goo.gl/NbeXid)).
- When “Strategic” is added to the three words in the title: **Zero** results ([goo.gl/5a4yuW](http://goo.gl/5a4yuW)).

**6**

# **PEACEKEEPING**

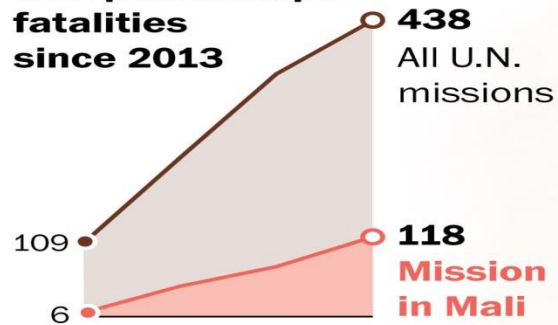


# Problem:

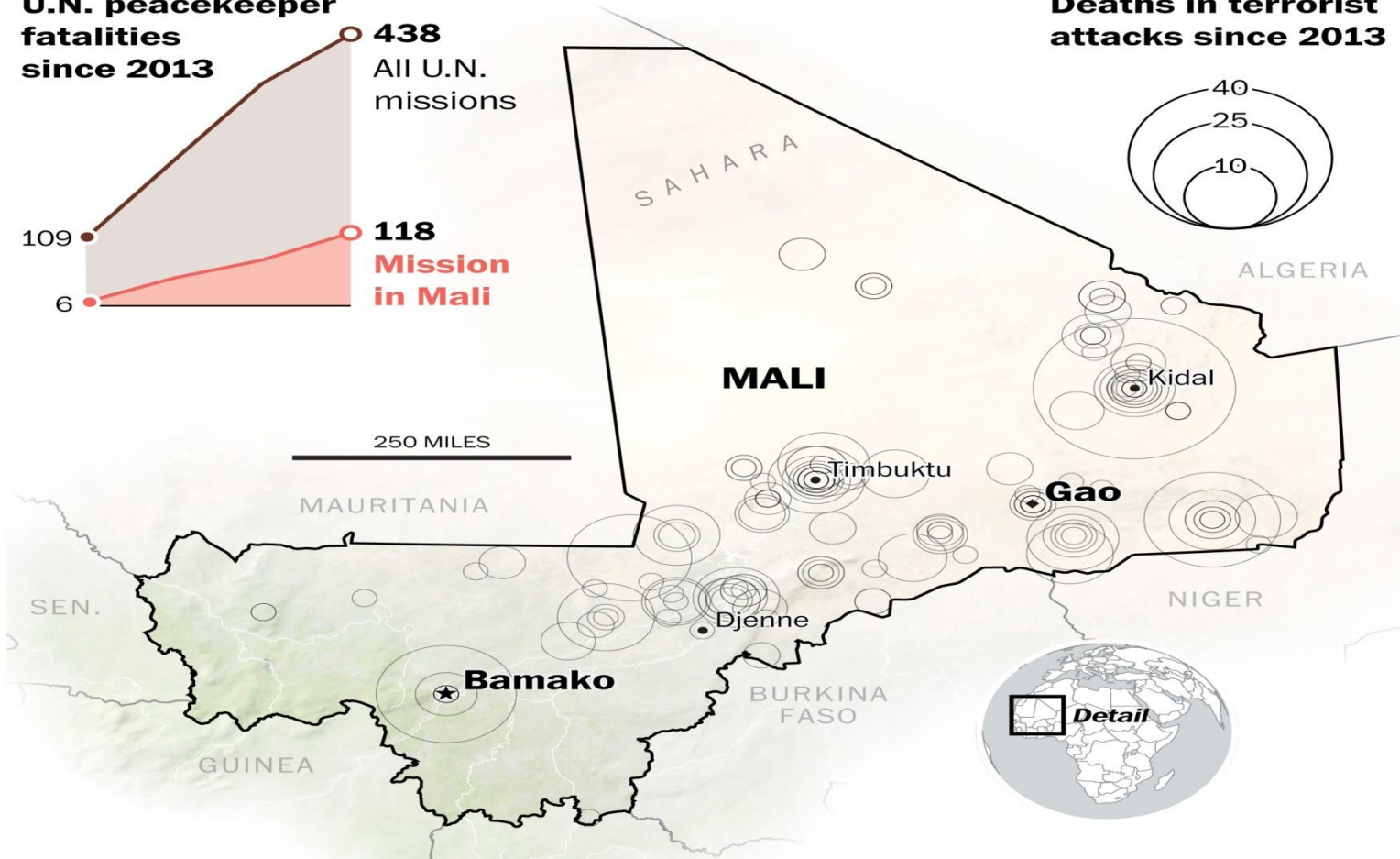
## A dangerous mission

Since 2013, 118 peacekeepers have been killed in Mali, making it the deadliest ever U.N. mission. The country is plagued by several groups linked to al-Qaeda.

### U.N. peacekeeper fatalities since 2013



### Deaths in terrorist attacks since 2013



Sources: IHS Jane's Terrorism and Insurgency Center, United Nations

TIM MEKO/THE WASHINGTON POST

# Intelligence Issue?

- Brahim Report (2000): how to avoid new failures like Somalia (UNOSOM I and II, 1992-1995), Rwanda (UNAMIR, 1993-1994), and Bosnia (UNPROFOR, 1992-1995).
- Doctrine and organizational changes to deal with new operational realities: Joint Mission Analysis Centres (JMACs) at the operational level. Research and Liaison Unit (RLU) of the Situation Centre (SITCEN- DPKO/DSF), and the UN Operations and Crisis Centre (UNOCC), in New York. Limited capabilities due to political sensitivities.

# Risk to neglect SIA?

- As shown by MINUSTAH, MONUSCO, and MINUSMA, multidimensional missions with robust mandates (offensive combat requirements) are the new normal. Due to demographic, climate, and energy transitions, operational scale will probably increase to deal with hundreds of thousands of blue helmets and tens of millions of civilians.
- The new UN Secretary-General António Guterres has called for a boost in preventive diplomacy and mediation efforts, as well as for a strategy to address root causes of such conflicts in the world (United Nations, 2017). How?



7

# CONCLUSION

- Strategic Intelligence Analysis matters
- From nukes to terrorism and peacekeeping...
- Education and Cooperation to strength SIA
- Analytic quality and hypotheses tests
- Start with public documents and evidence based SATs validation (Coulthart, 2017).

# Context Implications

- Risk of wars because of increased demand, reduced access and diminished quality of natural resources: water, oil, land, minerals, etc. (Barnett and Adger, 2007).
- Risk of violent social conflicts, including insurgency and terrorism, given the increase in refugee flows, inequalities and particularities.
- New geostrategic spaces resulting from climate change, from the Arctic to the Antarctic.
- Rapid development of productive forces and strengthening of reversal of globalization and regionalization based on gray zones between war and peace (Hammes, 2016).

# Structure Implications

- The unbalanced tripolarity between an island dominant power that behaves in a revisionist way in the system (primacy?) and two continental states (one on the rise and one on the decline), demands a hegemonic recomposition which can cause instability in the center and in the periphery of the system (Mearsheimer, 2001).
- The risk of central war or high-intensity local wars involving the great powers is the central parameter for thinking the world in 2035.
- Peacekeeping Operations and Counterterrorism are less determinant components that accompany the limits of multilateral institutionality in the international system.

# Interactions Implications

- Pessimistic Scenario: increased polarization between the major powers combined with the adoption of more aggressive strategies can eliminate political mediation and increase the risk of nuclear escalation, leading to total war, secular economic stagnation and ecological collapse.
- Optimistic scenario: peaceful hegemonic restoration, with strengthening of multilateralism, division of spheres of influence with shared power between great powers and regional powers. Armed forces with deterrent function and stabilization capability.
- Intermediate Scenario: average polarization, the endemic war that disputes legitimacy (moral and legal) and the instability limited to the Middle East and specific countries in the periphery.



# Challenges

- To define and reconcile ends and means
- Agencies: centrality of intermediation
- Intelligence is a relevant part of C2
- Legitimacy: a new challenge
- Effectiveness: focus versus scarce resources
- Priorities: strategic analysis and CI
- Requirement: qualify analysts and educate the public

# STRATEGIC INTELLIGENCE ANALYSIS: THREE PUBLIC REPORTS

	NUCLEAR DETERRENCE	COUNTERTERRORIS M	PEACEKEEPING
REPORT TITLE	Annual Report to Congress on the Safety and Security of Russian Nuclear Facilities and Military Forces	European Union Terrorism Situation and Trend Report (TE-SAT)	A more secure world... Report of the High-level Panel on Threats, Challenges and Change
YEAR	2004	2016	2004
ACTOR	USA	EU	UN
ORGANIZATION	NIC	EUROPOL	UNOOC

# STRATEGIC INTELLIGENCE ANALYSIS: THREE PUBLIC REPORTS

	NUCLEAR DETERRENCE	COUNTERTERRORISM	PEACEKEEPING
INTELL-POLICY SEGREGATION LEVEL	HIGH	LOW	MEDIUM
INTELL-POLICY MUTUAL INTEREST	MEDIUM	HIGH	LOW
INTELL-POLICY COOPERATION LEVEL	LOW	MEDIUM	HIGH
PERIODICITY (DECLARED)	ANNUAL	ANNUAL	OCCASIONAL
PERIODICITY ( <i>DE FACTO</i> )	INTERMITTENT	ANNUAL	UNIQUE
EPISTEMOLOGICAL ORIENTATION	DESCRIPTIVE	EXPLICATIVE	PRESCRIPTIVE

# STRATEGIC INTELLIGENCE ANALYSIS: THREE PUBLIC REPORTS

	NUCLEAR D E T E R R E N C E	C O U N T E R T E R R O R I S M	P E A C E K E E P I N G
SOURCE OF INTELL	IMINT/SIGINT	HUMINT	OSINT
QUALITY EVALUATION	YES	NO	NO
FEEDBACK TO ANALYSTS	NO	YES	NO
LEGAL UNFOLDING	YES	YES	NO
POLICY UNFOLDING	YES	YES	YES

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THANK YOU

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