

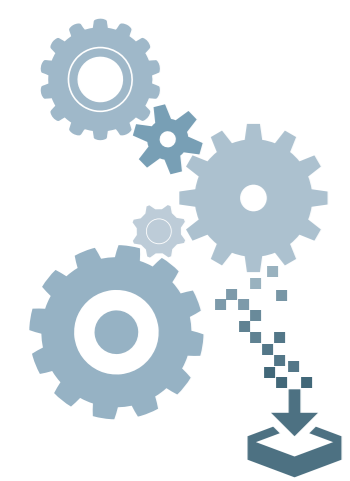
Sovereignty and global risks

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Sovereignty

“The Organization is based on the principle of the sovereign equality of all its Members”

UN Charter, 1945

Peace of Westphalia, 1648.
Thirty Years War in Europe

Principle: no interference
in domestic affairs

Pragmatic, not moral





Global Risks 20th century

Special spaces

High sea

Outer space

Arctic

Atmosphere

Special dimensions

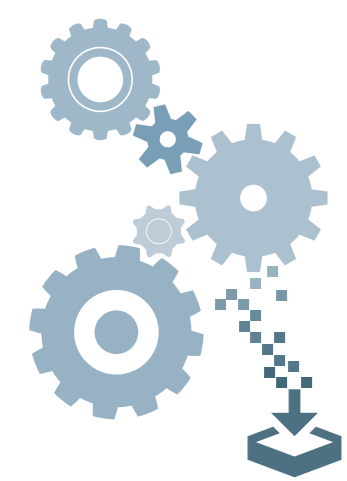
nuclear technologies

ozone-depleting chemicals

biochemical weapons

human rights

Principles of international community



Special spaces

Law of the Sea, 1958, 1982, 1994 (ratification)

UN Convention (UNCLOS)

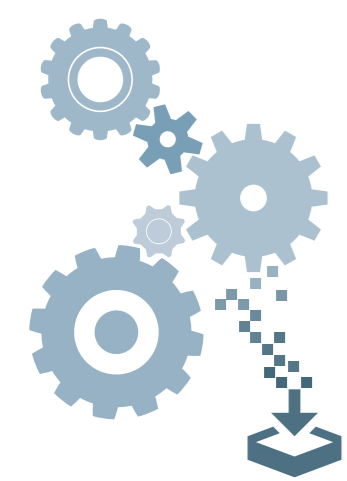
- mare liberum principle (Hugo Grotius, 1609)
- safeguarding marine environment
- protecting freedom of scientific research
- controlling mineral resource exploitation



Outer Space Treaty, 1967

UN Committee on the Peaceful Uses (COPUOS)

- precludes any claims of national sovereignty
- permits all states to freely explore outer space
- bans weapons of mass destruction



Nuclear non proliferation

2 atomic bombs, 1945
2000 nuclear tests
14500 nuclear weapons



Limited Test Ban Treaty (atmosphere), 1963

Non-Proliferation Treaty, 1968

Bilateral Strategic Arms Limitation Treaty, 1972

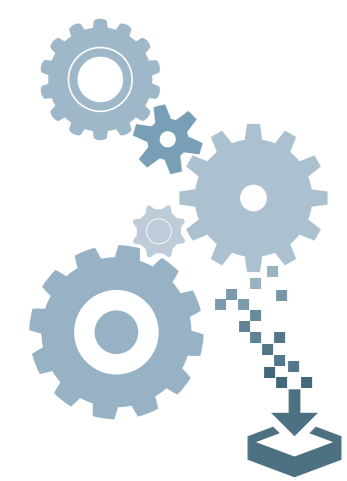
Comprehensive Nuclear-Test-Ban Treaty, 1996 (signed)

IAEA Verification mission

Treaty on the Prohibition of Nuclear Weapons (TPNW),

UN Conference, 2017

As today 19 States ratified. Enters into force with 50 States



Ozone-depleting chemicals

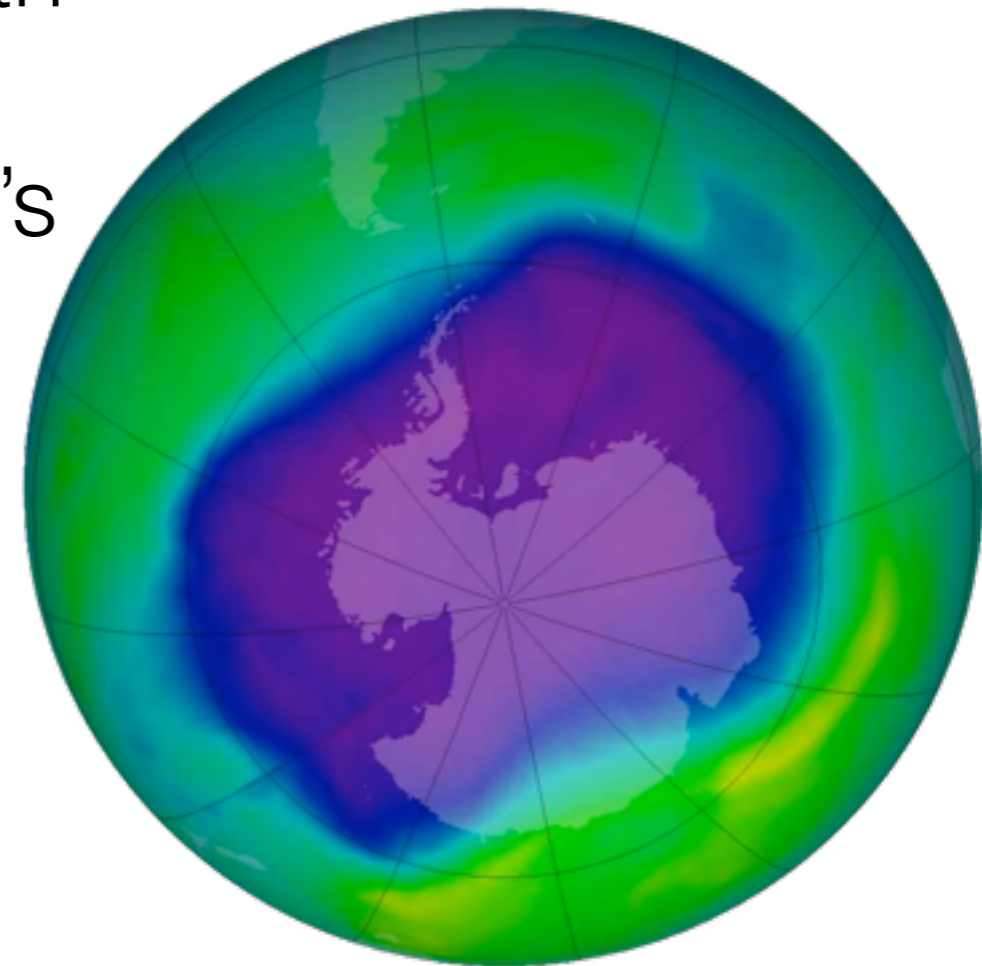
Absorption of UVB radiation

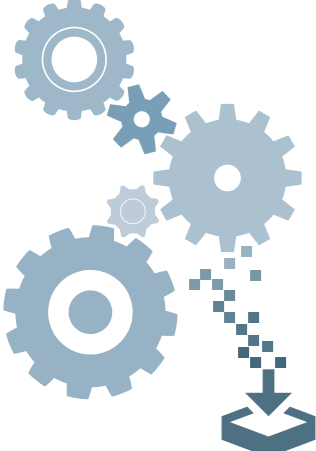
Fundamental implications for health

Evidence of depletion in late 1970's

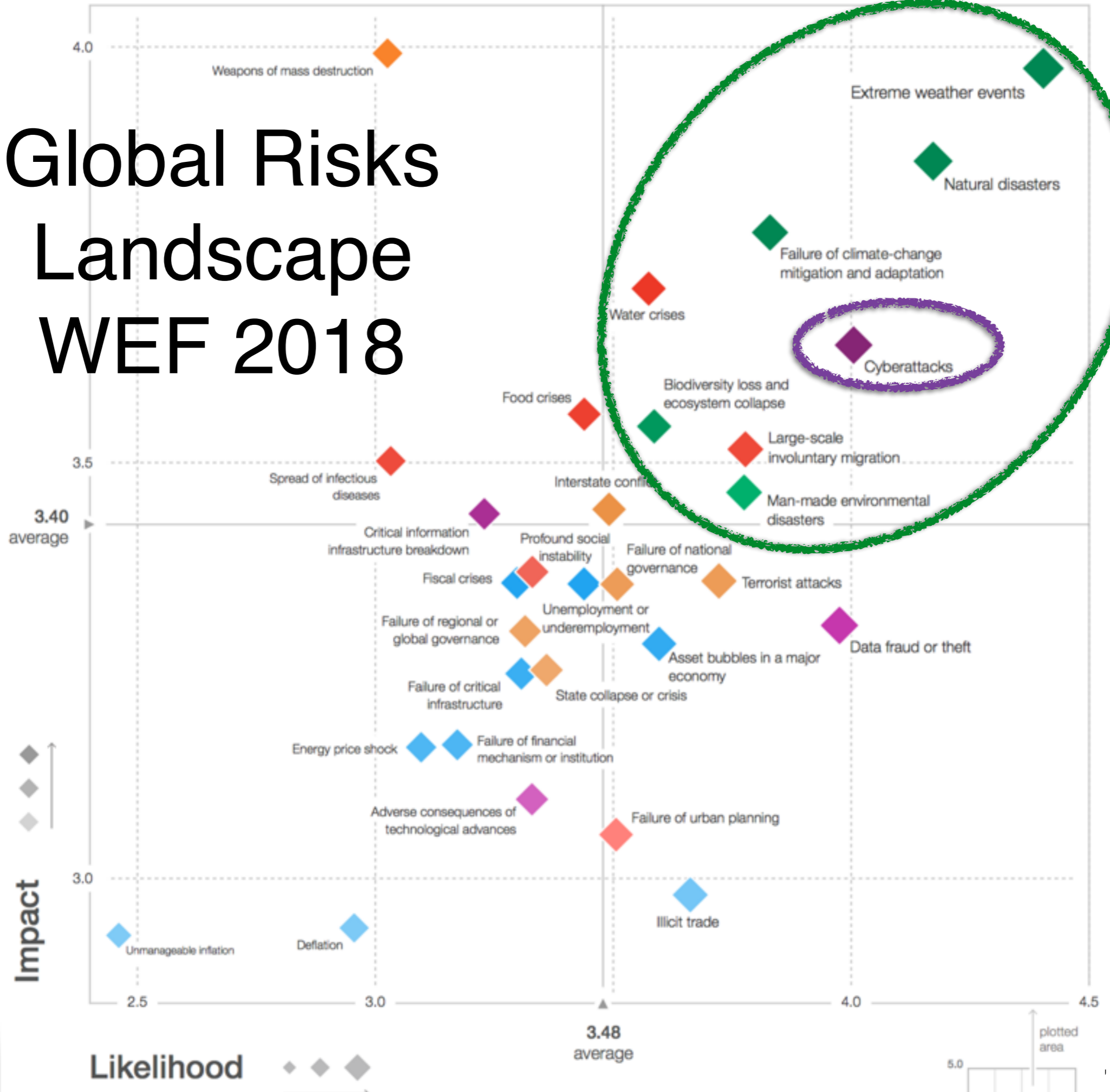
Political & commercial interests

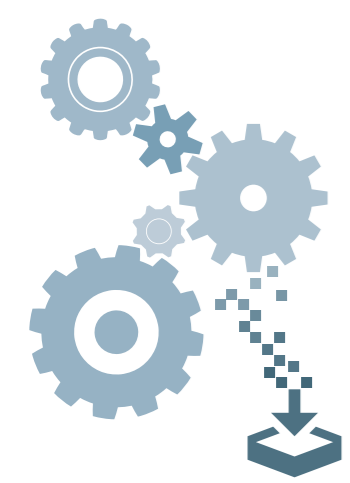
Montreal Protocol, 1987
ban on chemicals





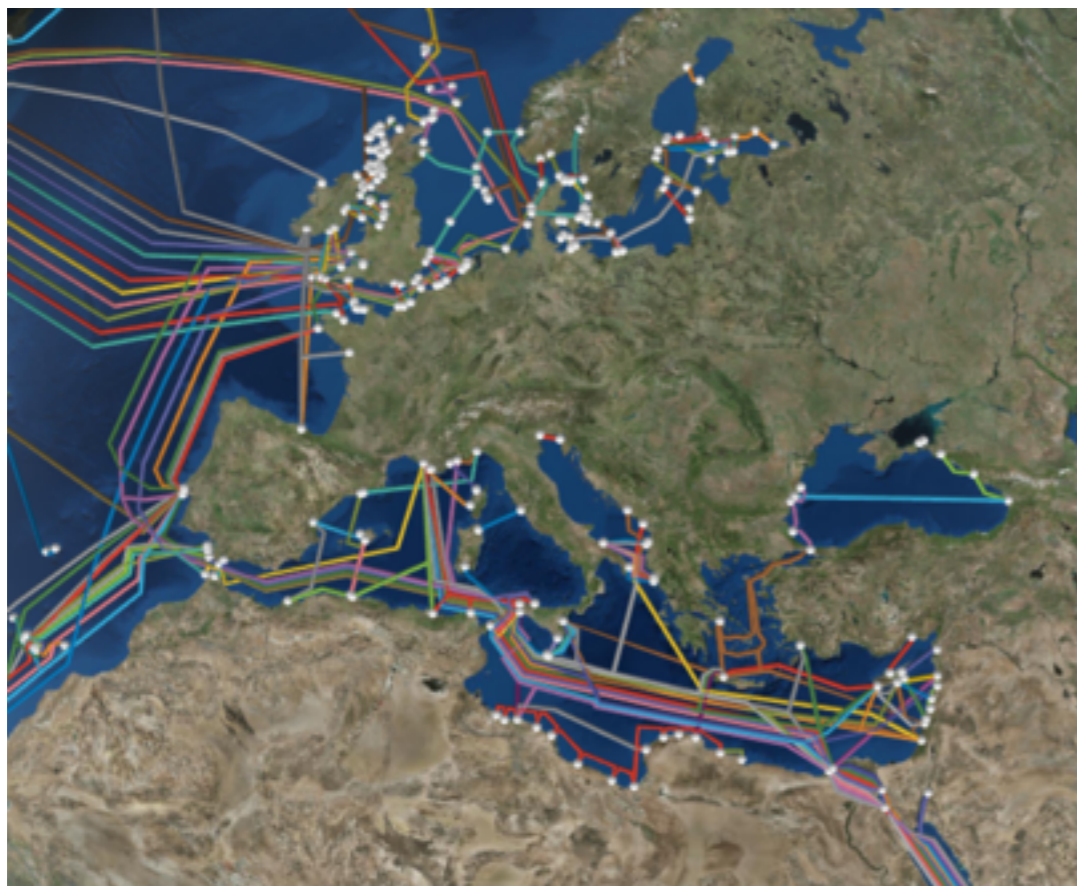
Global Risks Landscape WEF 2018





Complex embeddings

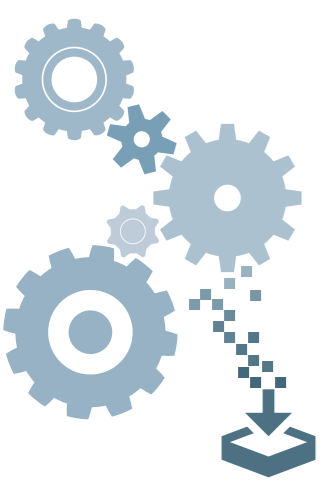
Digital embedded
into geography



<https://maps.esri.com/rc/cable/index.html>

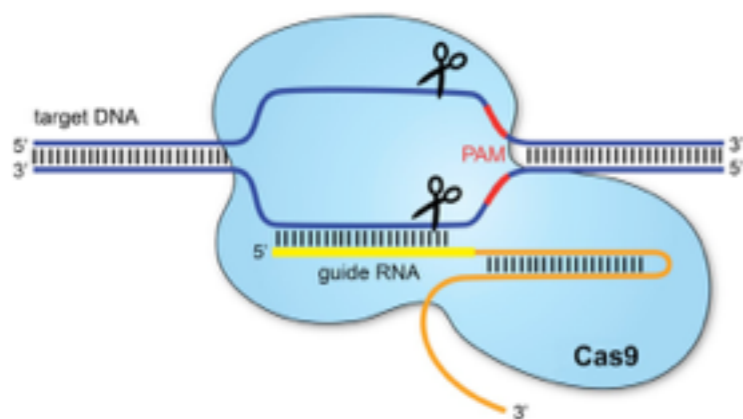


Human society embedded
into natural environment

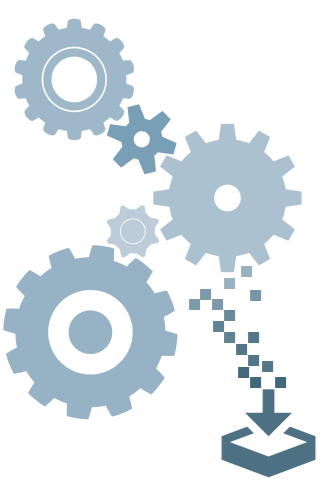


Complex embeddings

nature embedded
into human transformation

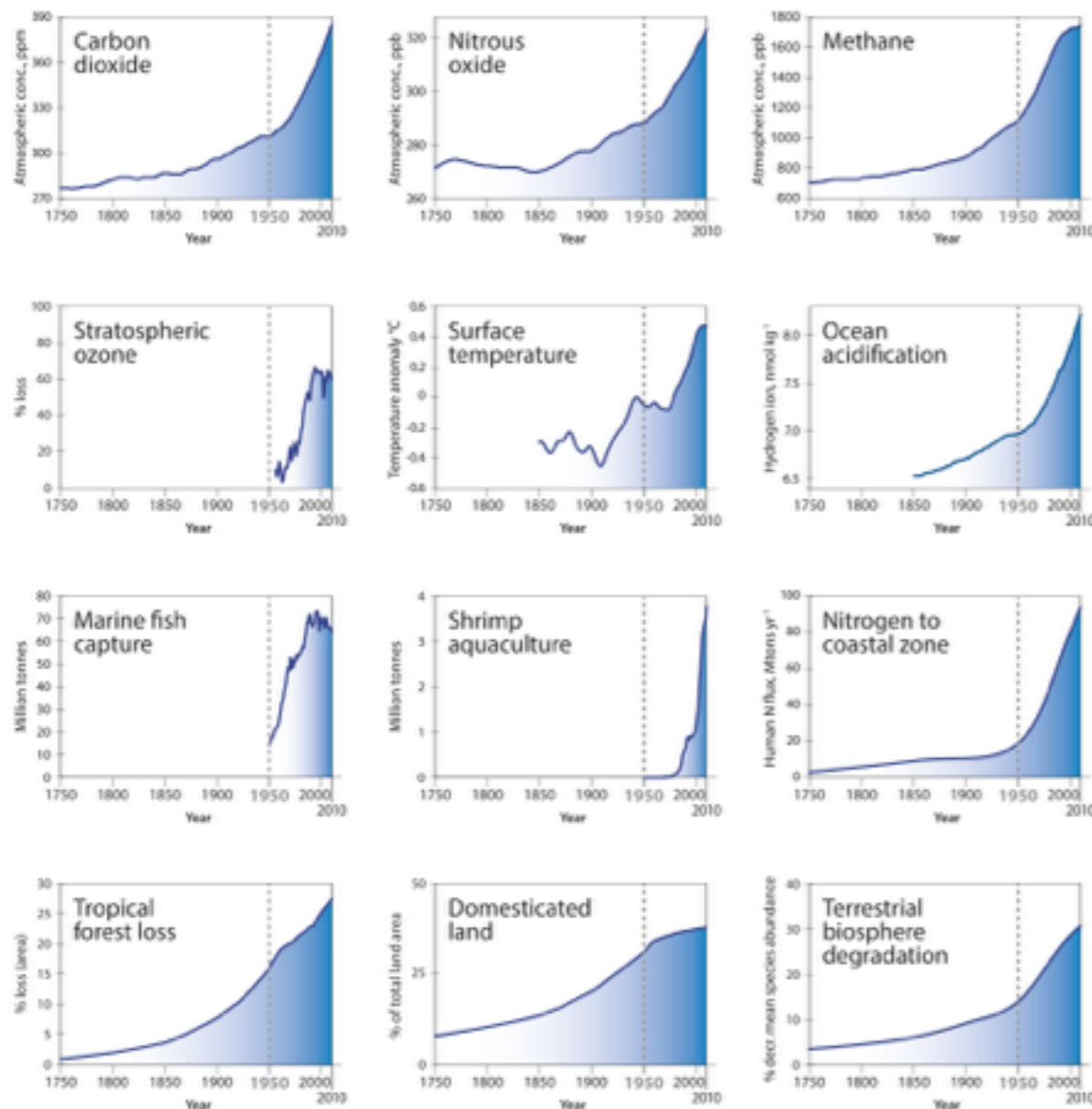


Human society embedded
into digital environment

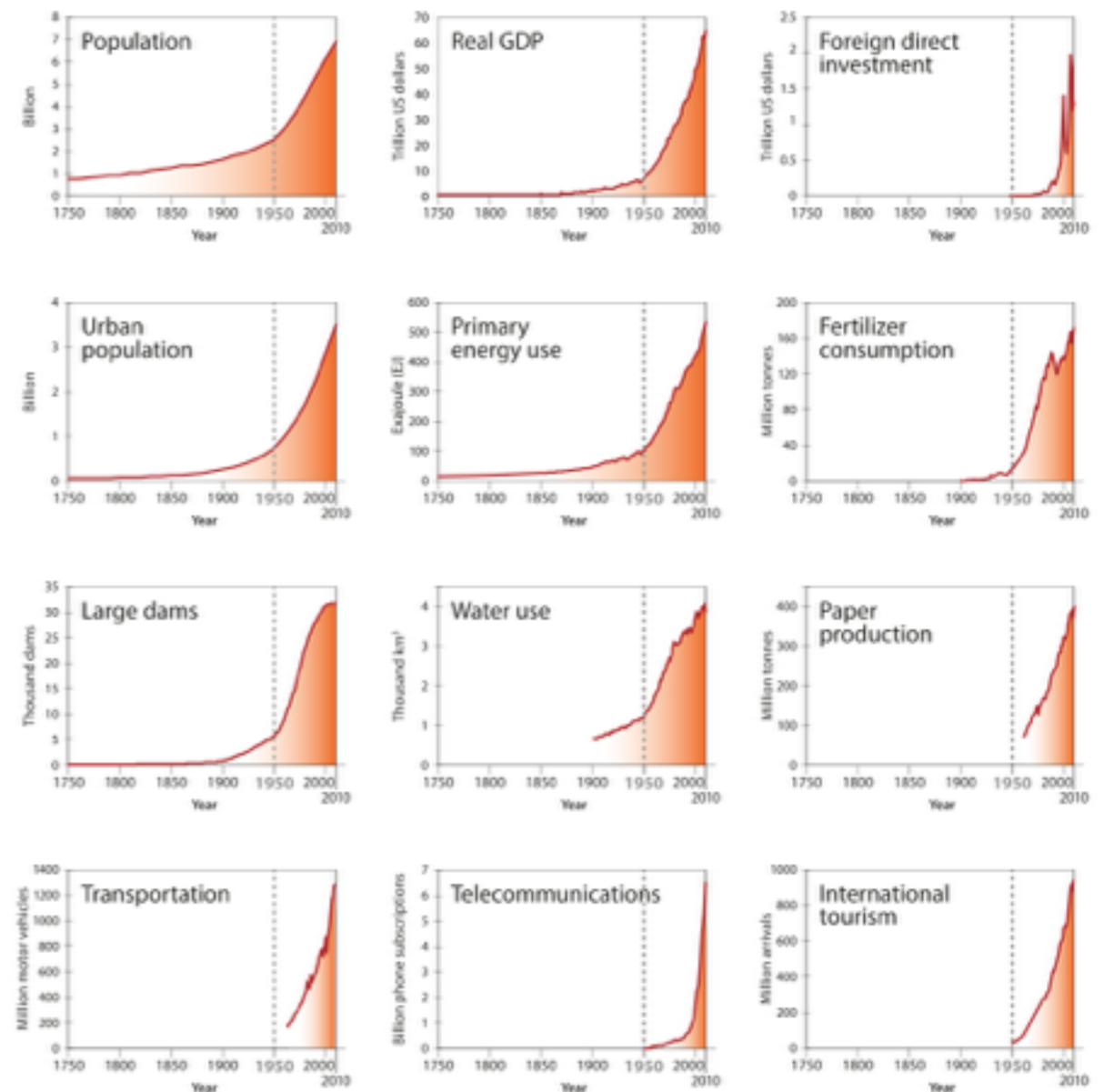


Great acceleration

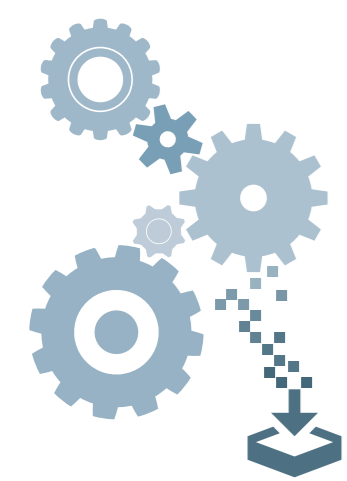
Earth system trends



Socio-economic trends

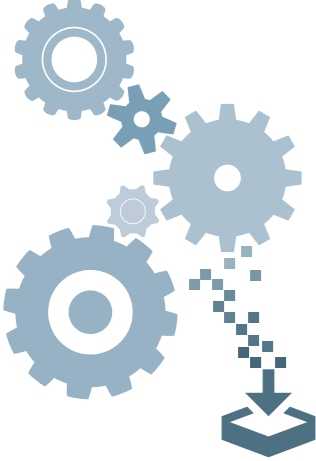


Steffen, Will, et al. "The trajectory of the Anthropocene: the great acceleration." *The Anthropocene Review* 2.1 (2015): 81-98.



WEF Global Risks 2018

- A Tangled Web
Artificial intelligence “weeds” proliferate, choking off the performance of the internet
- Precision extinction
AI-piloted drone ships wipe out a large proportion of global fish stocks
- War without Rules
State-on-state cyberattacks escalate unpredictably owing to a lack of agreed protocols
- Walled Off
Regulatory, cybersecurity and protectionist concerns lead to the fragmentation of the internet



Need for System Thinking

WEF Global Risk interconnections MAP

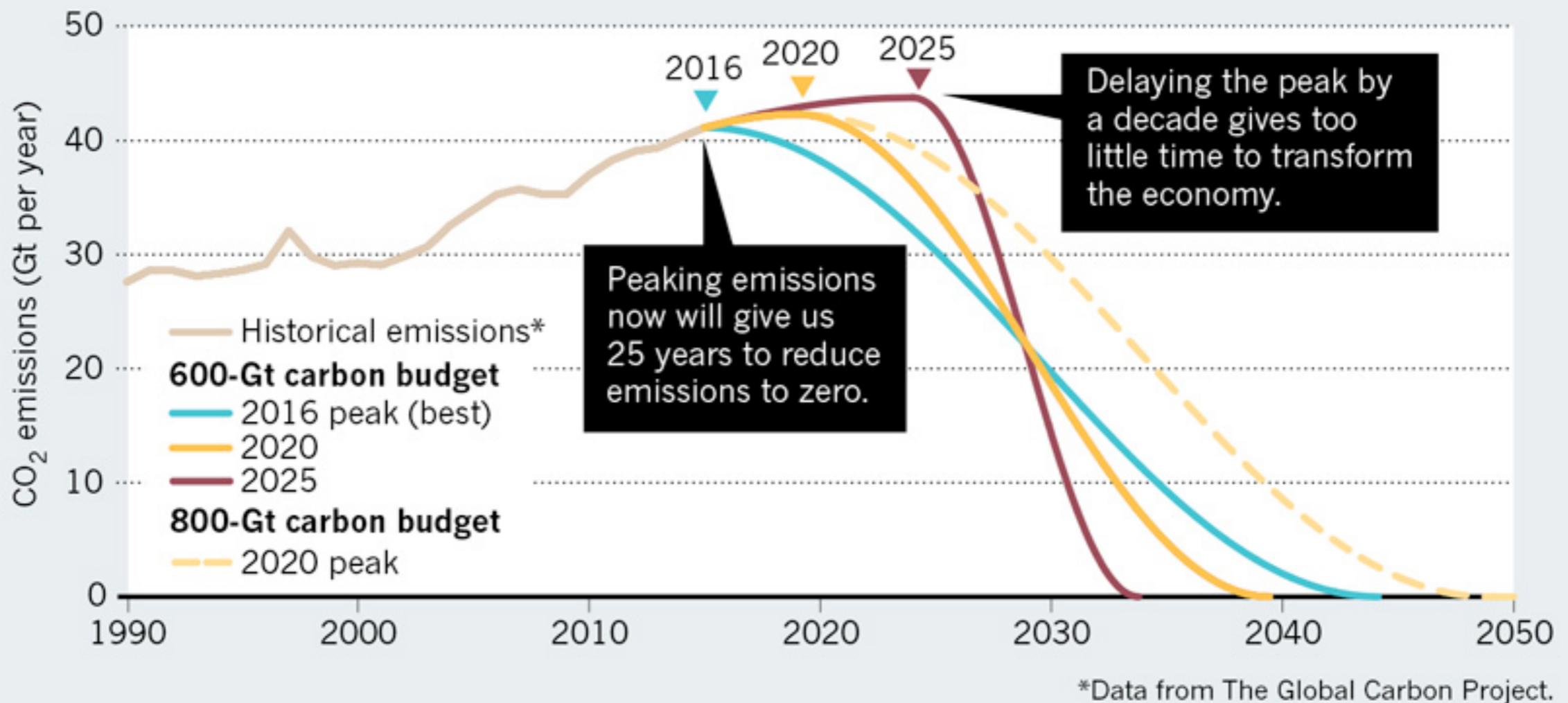
2017
cybercrime costs
US\$600 billion,
0.8% global GDP
(McAfee)

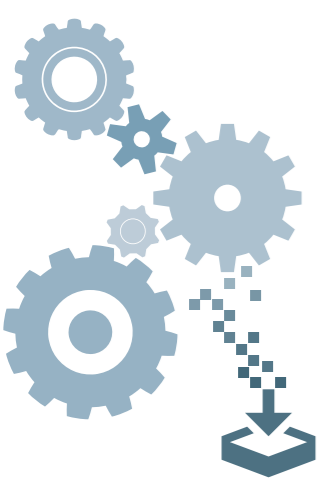


Drastic changes ahead

CARBON CRUNCH

There is a mean budget of around 600 gigatonnes (Gt) of carbon dioxide left to emit before the planet warms dangerously, by more than 1.5–2°C. Stretching the budget to 800 Gt buys another 10 years, but at a greater risk of exceeding the temperature limit.





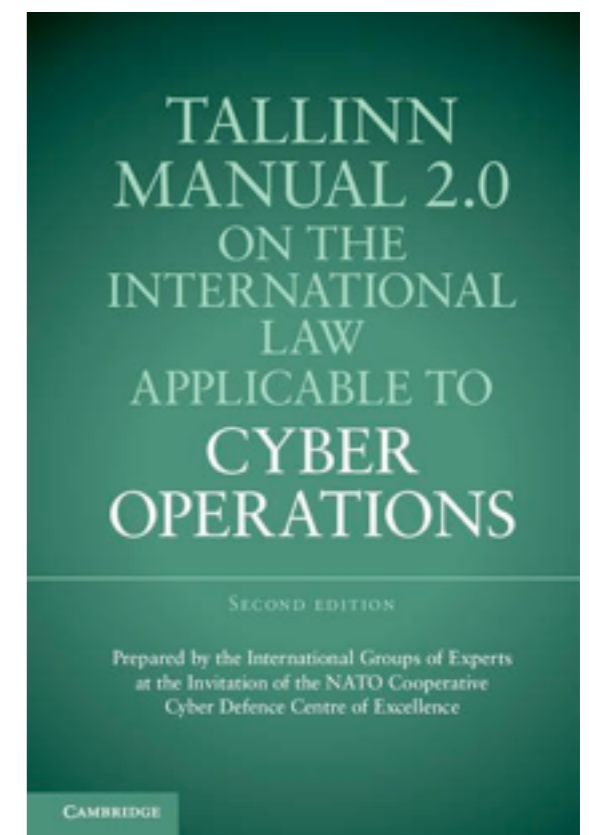
Vertical vs horizontal control?

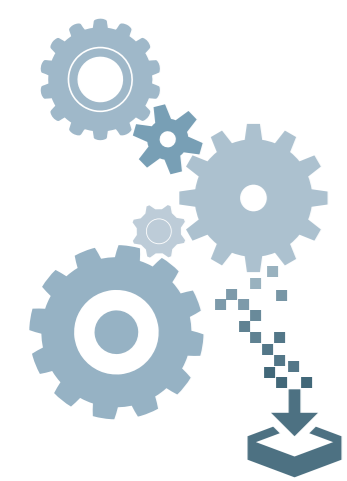
Need for norms and protocols in the Cyberspace to ensure

- No escalation
- Deterrence
- Non proliferation
- Prohibition of classes of cyber-weapons

International framework

- Old laws applied to new paradigm
 - UN Charter,
 - Geneva Conventions,
 - Laws of Armed Conflict,
- New laws?





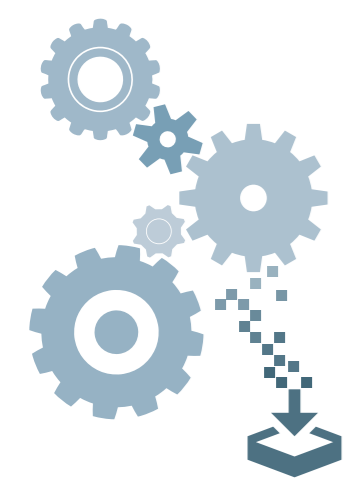
Attempts for UN control

1998 First UN Treaty proposal
ban on electronic & information weapons
Russia & China favors, US against



ITU World Conference Dubai 2012
political clash between blocks on the role of UN

UN Group of governmental experts (UNGGE) 2004
2015 Norms adopted by G20
2017 Failure to agree



US Position

Against new UN vertical framework

Cyberspace as a Common pool resource

With community self-organization (Elinor Ostrom)

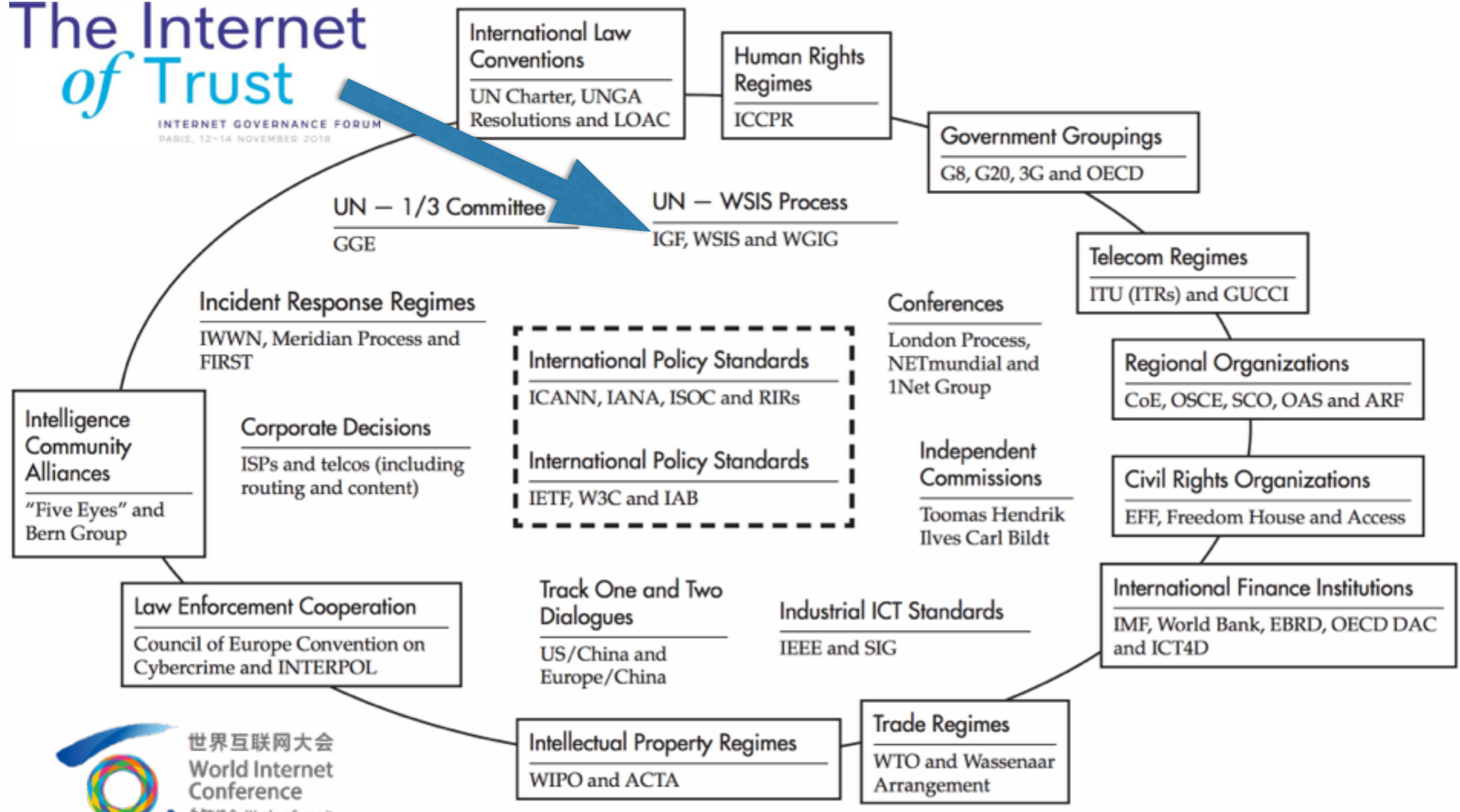
Promotion of norms

- taboo against targets vs weapons
(compliant with humanitarian laws)
- private retaliation to attacks
- extraterritorial laws

Bilateral agreements

- EU–US Privacy Shield
- China US 2015 agreement on cyber espionage for commercial purposes
after conflict on IPR & US indictment of PLA officers

Regime Complex



Harvard Kennedy School

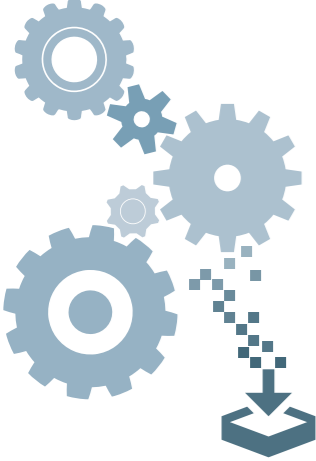
Joseph Nye. The Regime Complex for Managing Global Cyber Activities. 2014.



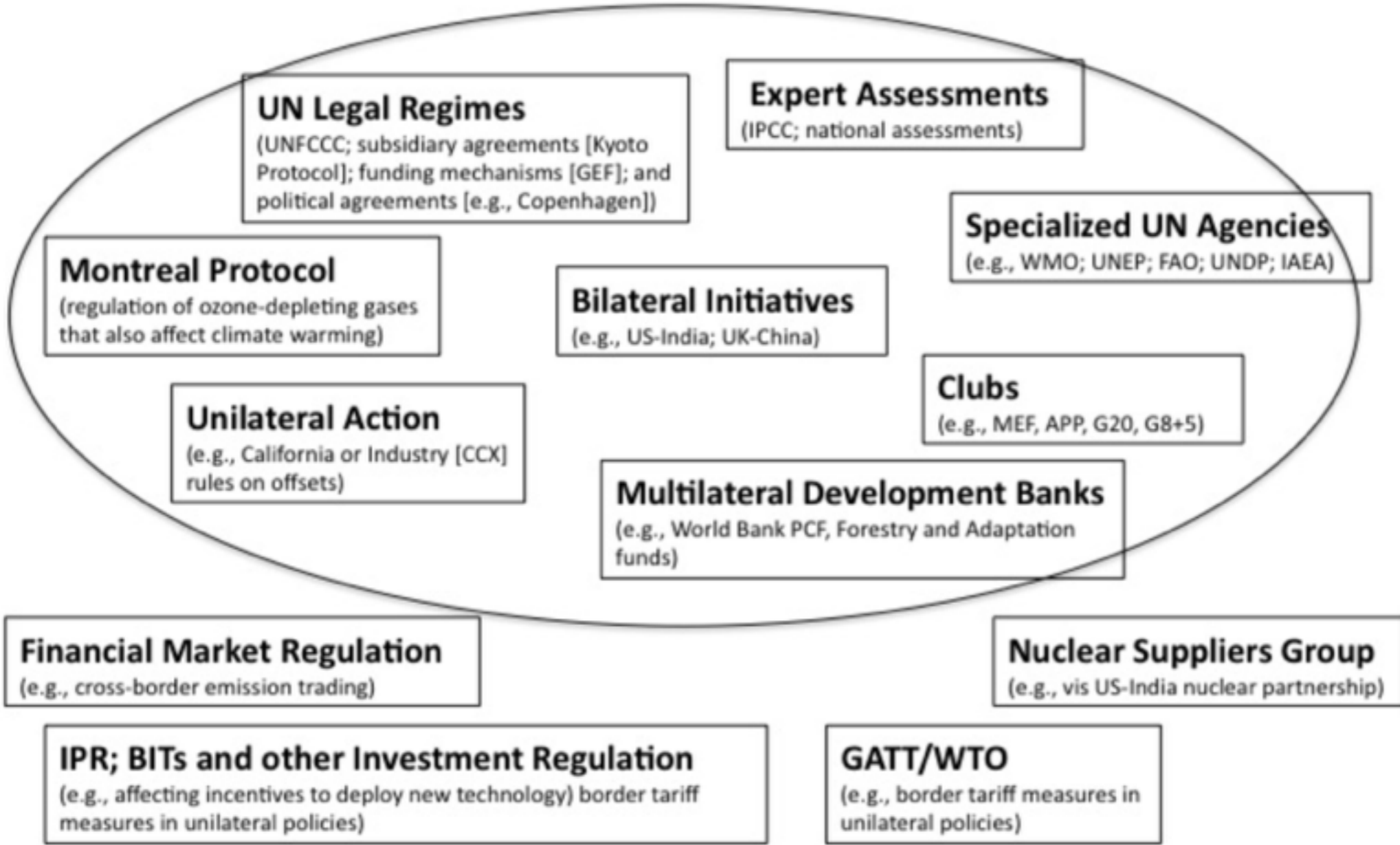
S. Grumbach

France Japan Cybersecurity workshop

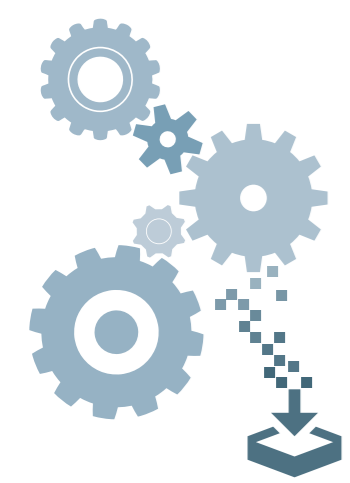
Keio University, Tokyo Oct 29-31, 2018 17



Regime complex for climate change



Keohane & Victor. "The regime complex for climate change." Perspectives on politics 9.1 (2011)



What Sovereignty?

From control of territories
to
networks of control