



The COVID Crisis: Implications for United States – and Global – Biosecurity.

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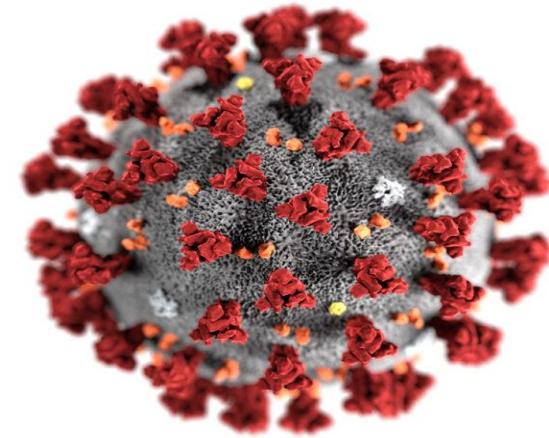
Project in Biosecurity, Technology, and Ethics

US Naval War College, Newport, RI, USA

Disclaimer

The information and views presented are those of the author, and do not necessarily reflect those of the US Department of Defense, US Naval War College, DARPA or the organizations and institutions that have provided support for this work.

COVID-19



- NOT a bioweapon

Yet...

- Clear and present threat to biosecurity
- Multi-dimensional, interactively **DISRUPTIVE** effects
 - Biological
 - Psychological
 - Socio-economic
 - Political



Demonstration of Biosecurity Vulnerability

- **Preparedness Process**

- Infrastructure and Coordinated Response Functions
- Surveillance
- Quantification
- Readiness: Review, Revision

- **2010 NATO Moldova Model**

- **Crimson Contagion Exercise**

- **2019 Report to Senate Intelligence Committee**

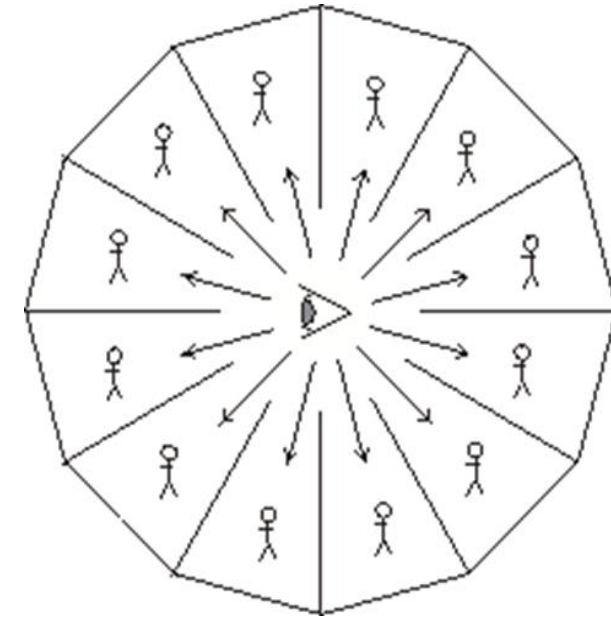
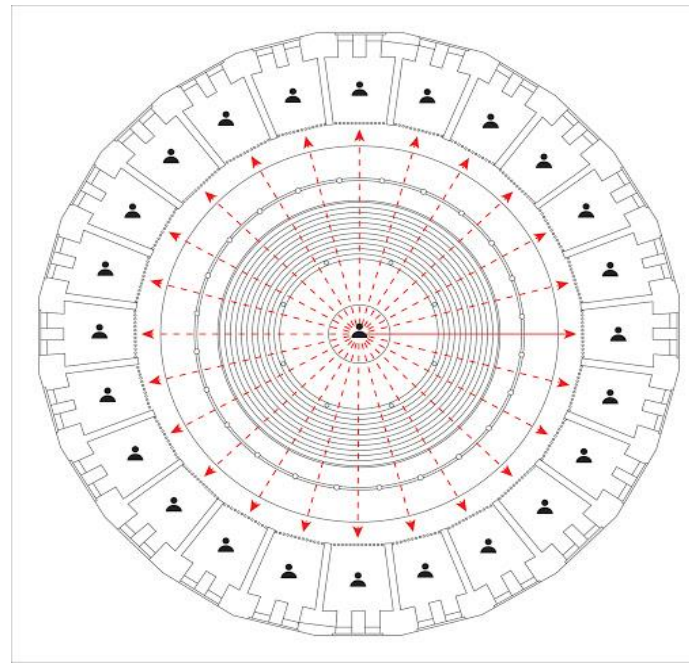
See: DeFranco JP, Giordano J. The dark side of delivery; The growing threat of bioweapon dissemination by drones. *DefenceIQ* 13(1): (2020).

Giordano J, Snow JJ, DeFranco JP. Weaponized prions: Much ado about nothing, or big concerns about little proteins? *DefenceIQ*, 12(42): (2019).

Giordano J. Weaponizing the brain: Neuroscience advancements spark debate. *Nat Def*, 6: 17-19 (2017).

Surveillance: Intra-national

- Self-reporting
- Systematic reporting
- Combinatory approach(es)
- Position and activity 'mapping'



Techniques and Technologies

Personal communication tagging (e.g.- iPhone apps)

Immunity 'passports'/chips

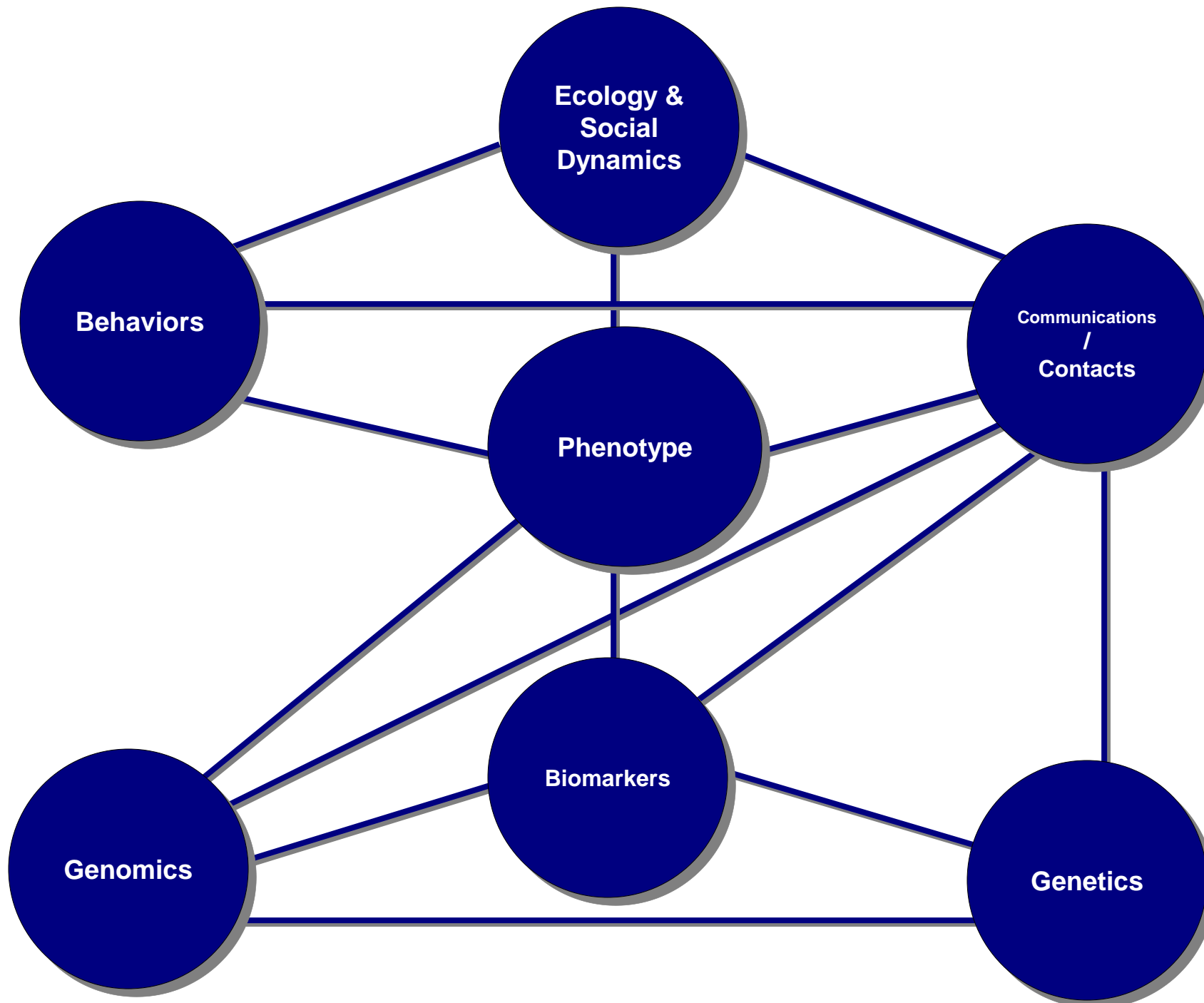
EMR access

“Protective Panopticon?”

Surveillance: Inter-national

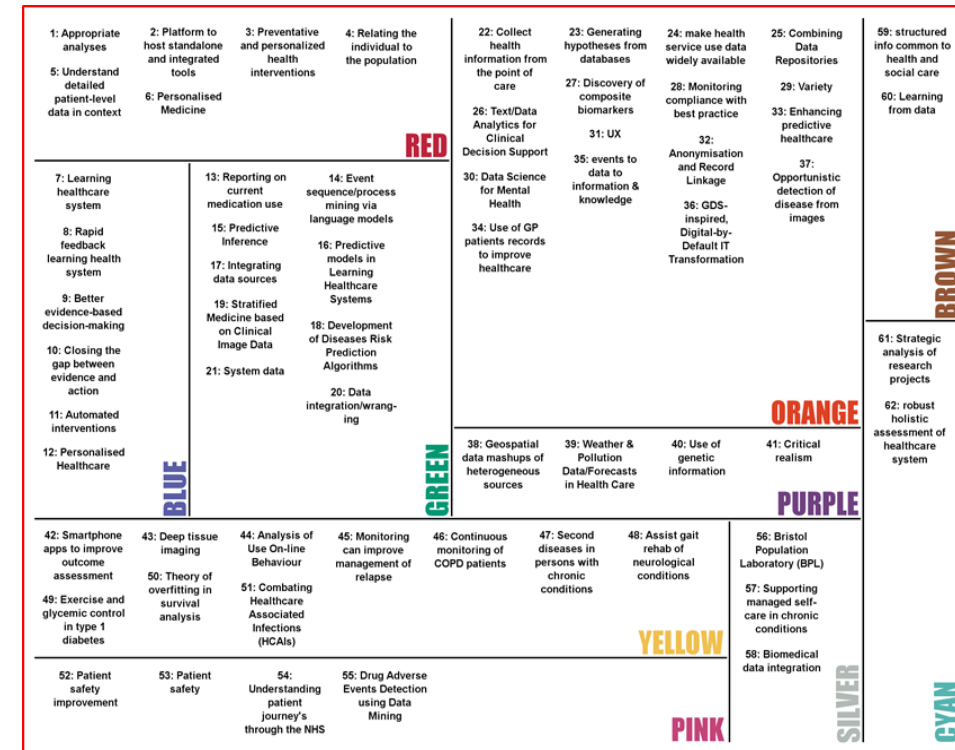
- Literature Tracking
 - Self-reporting
 - Systematic reporting
 - Comparative analyses
- Activity Tracking
 - Explicit
 - Implicit
 - Effectual (*'Cui bono? Cui malo?'*)
- Talent-position and -movement 'mapping'
 - Overt
 - Tacit
 - "Strings"



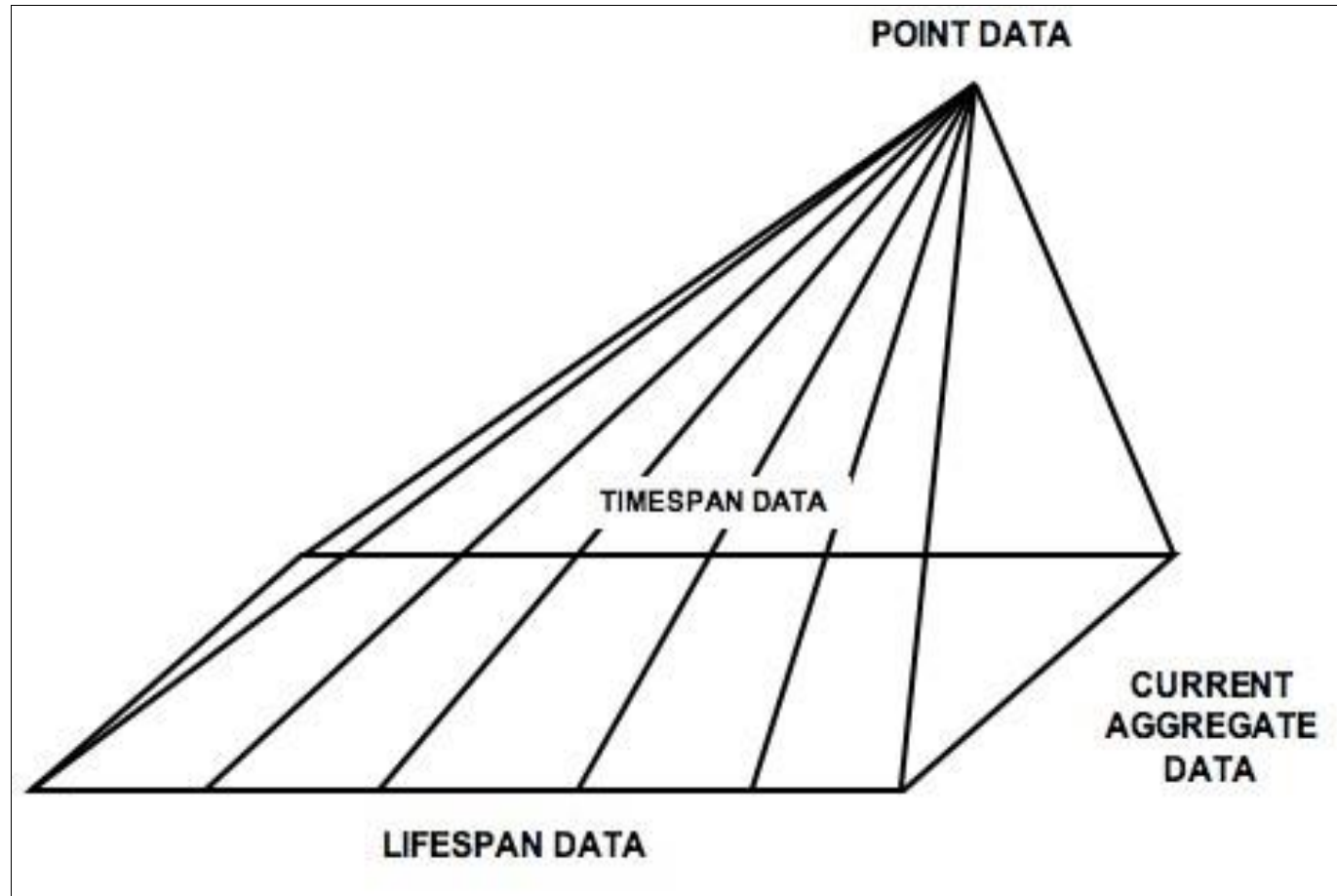


Data Acquisition and Tracking

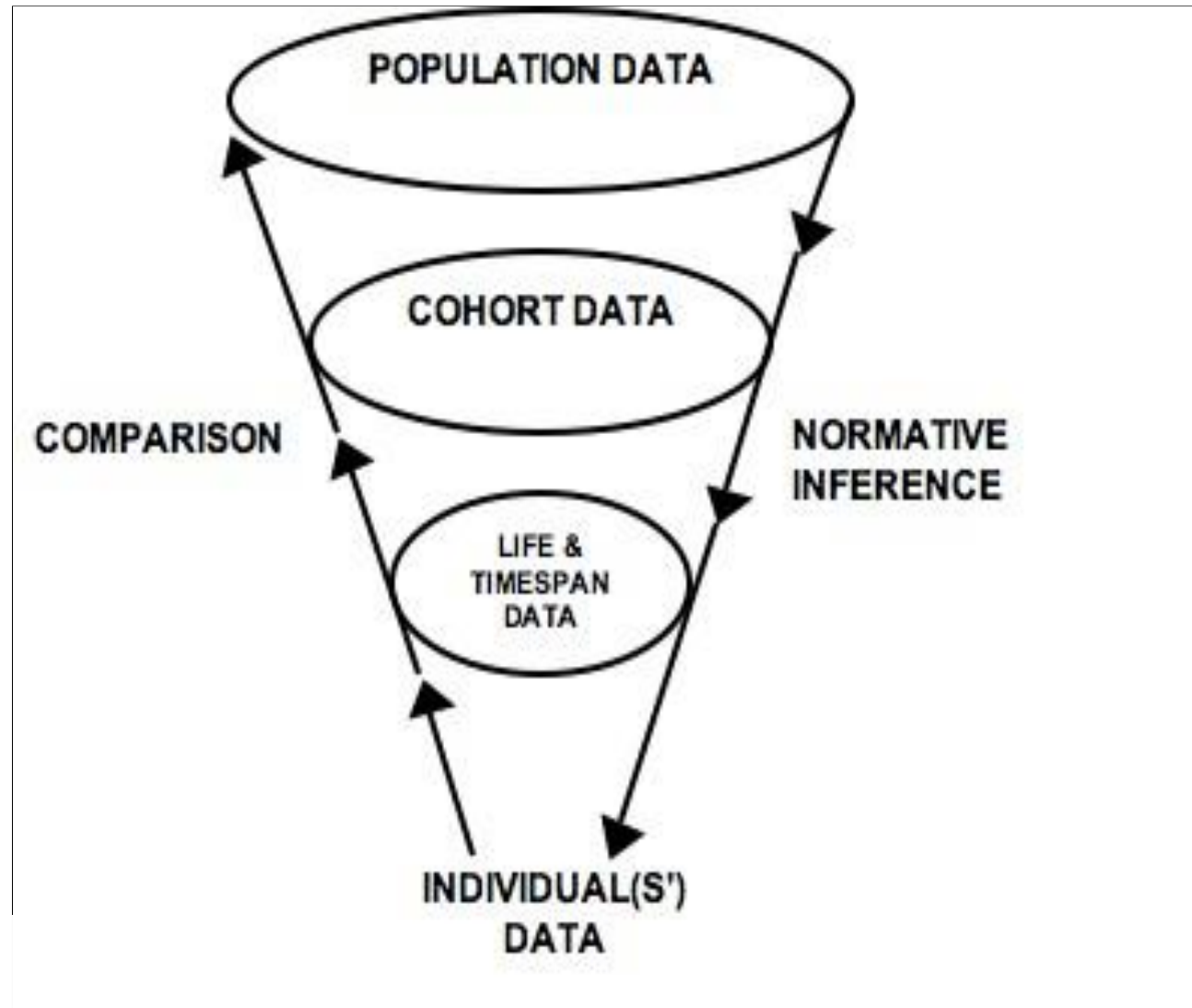
- Across domains
 - Cellular-to-social
- Across levels
 - Individual, cohorts, groups, populations
- Across geographic locales
 - Complete geo-spatial access
- Across time
 - Individual and historical timespans
- Across groups
 - Comparatively and normatively



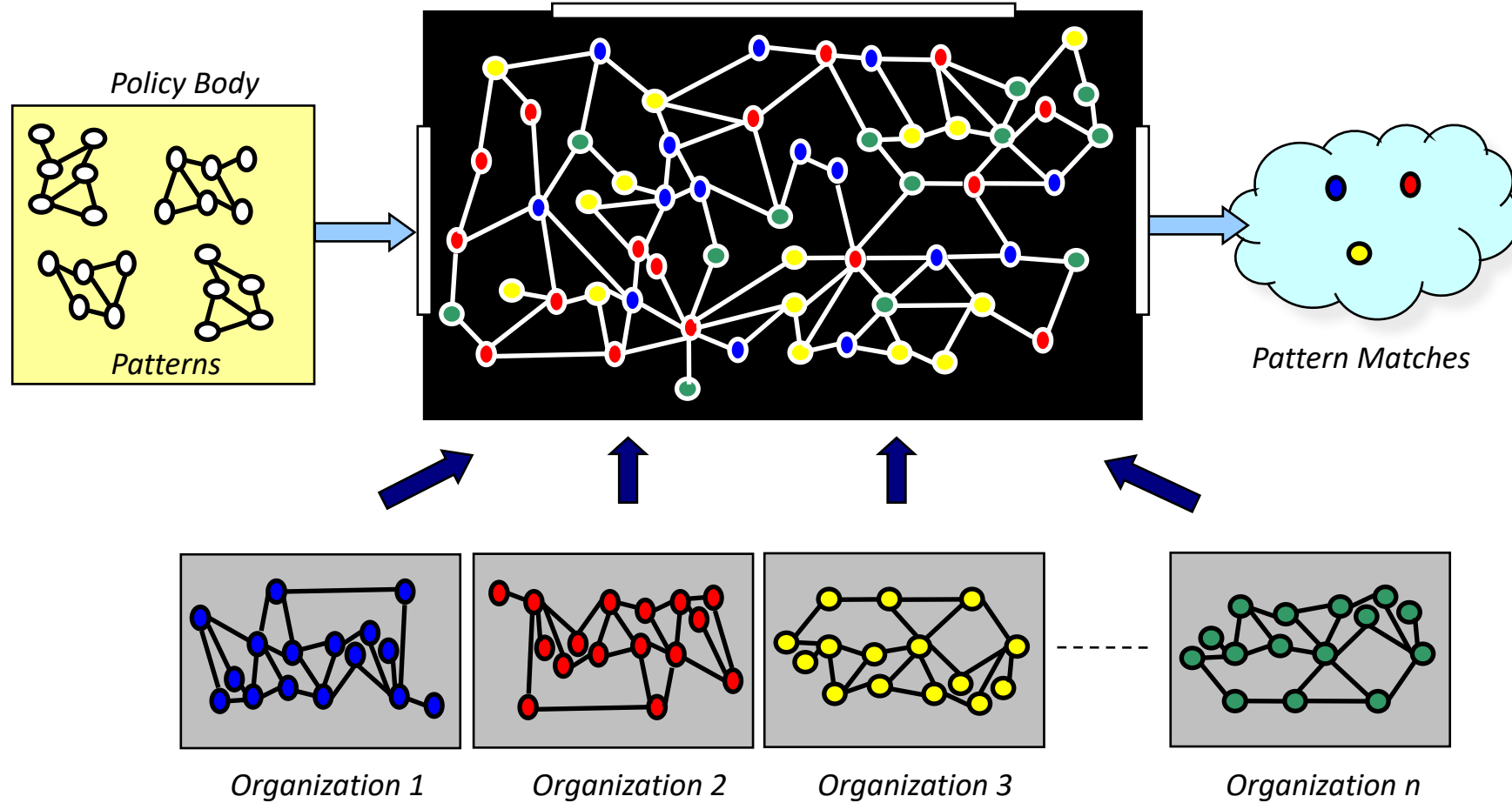
Individual Data



Group-analytic Data



The “Black Box” approach



Caveats

- If it's assessable, it's accessible
- If it's tagged, it's targetable
- *If it's stackable, it's hackable*
- What's hackable is manipulable
- What's controllable is corruptible



Issues...Tensions...Conflicts

Dilemata

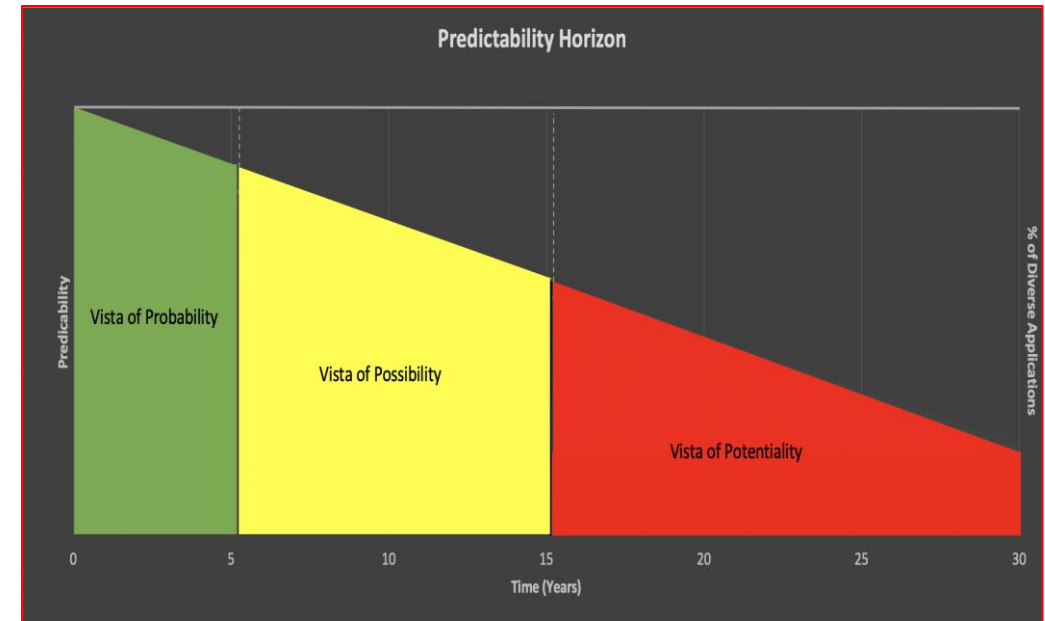
- Prevention
- Protection
- Public Health
- Privacy
- Personal Liberties/Rights
- Potentially Punitive Implications



Strategic Envisioning – and Engagement

Vista of:

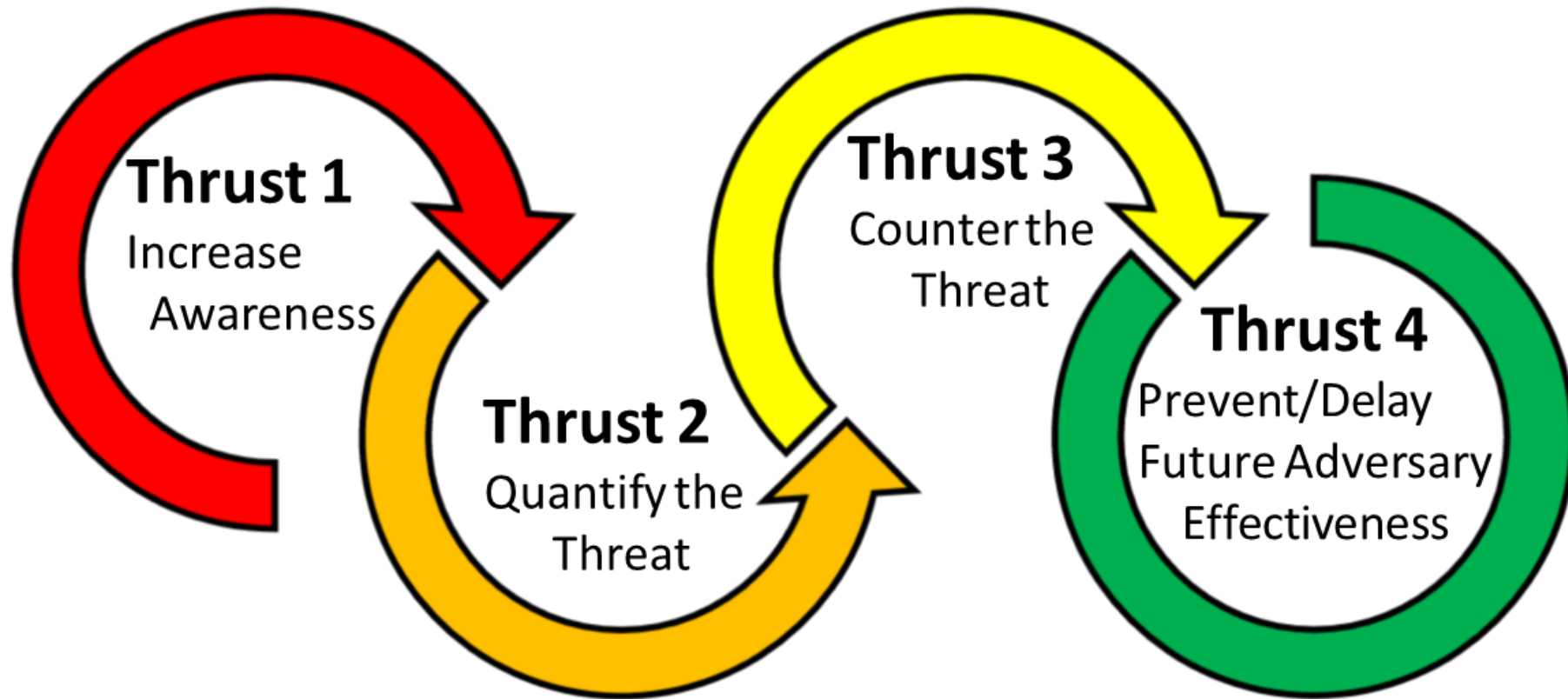
- **Probability**: Present to 5 years
“What exists now, and ‘soon’...”
- **Possibility**: 5 to 10 years
“Given probabilities, what might occur...”
- **Potentiality**: 10 to 25/30 years
“Given possibilities, what could be done with them...”



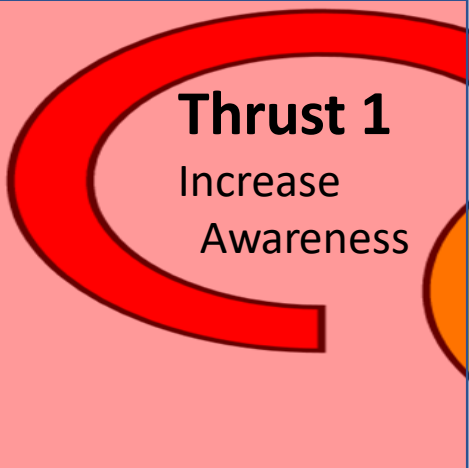
Core Questions and Issues

- What do we do *with* the information and capability we have?
- What do we do *about* the information and capability we don't?
- Given what *can* be done, how do we (and who will) decide upon what *should* be done?
- Will be able to do what we decide we should?

Four Thrust Strategy



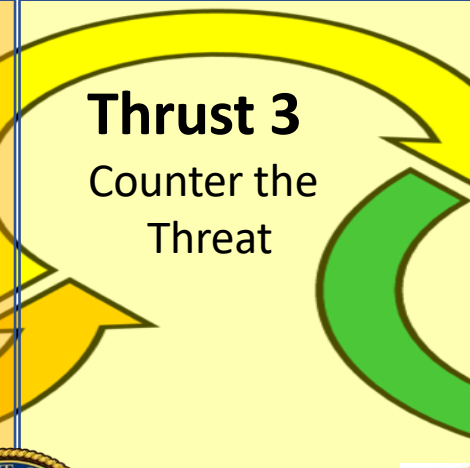
Whole of Nation approach required to identify, characterize, counter, and exploit/prevent biosecurity risks and threats to United States' public health and socio-economic stability



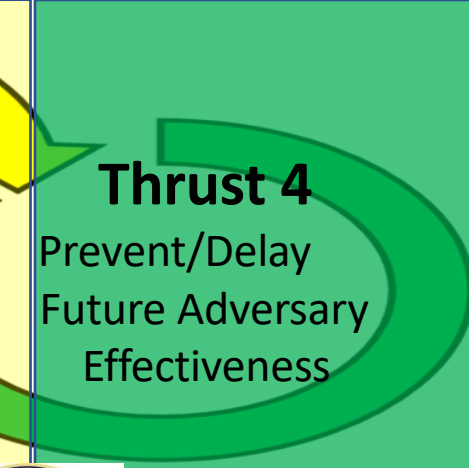
Thrust 1
Increase
Awareness



Thrust 2
Quantify the
Threat



Thrust 3
Counter the
Threat



Thrust 4
Prevent/Delay
Future Adversary
Effectiveness



Academic Institutions



Law Enforcement



Department of Defense



DHS



DHS



Research Centers



National Labs



State Department



Intelligence Community



Industry



Intelligence Community

Key Steps

Core premise: *Civic Institutions May Not Be Ready...*

- **Need for Medical Information Non-discrimination Act
(MINA; pro GINA)**
- **Need for programmatic biocyber-security**
- **Need for ongoing “surveillance of surveillance”**
- **Need for discourse/dialog**
- **Need for communication**
- **Need for cooperation
(Intra-nationally; Inter-nationally – inclusive of “Cooperative Competition” Models)**

Summary

- ❖ **Biosecurity risks/threats are increasing: clear and present danger to U.S. national security and stability**
- ❖ **Establish PMO/POR now**
 - ❖ **Fund research in technologies, innovations, countermeasures, and solutions**
 - ❖ **Develop capabilities to address and defeat evolving biosecurity (natural, kinetic and non-kinetic) threats (i.e.- Strategic Plan and tactical flexibilities)**
 - ❖ **Remain ahead of competitors'/adversaries' abilities to exploit US weaknesses**
 - ❖ **Engage Whole of Nation approach leveraging all sectors of national power**

Additional Information

- DiEuliis D, Emanuel P, Giordano J, Titus A. Applying advanced technologies to fight pandemics. *Nat Def* (2020); available online at: <https://www.nationaldefensemagazine.org/articles/2020/5/15/apply-advanced-technologies-to-fight-pandemics>
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