

How to increase robustness in Step 4 and manage complexity to ascertain impact

Insights– audit trail of FATE steps

Step 1	Social Technical System	Current	Baseline
	People (OPPPTI)	<ul style="list-style-type: none"> • Big Pharma corruption 	<ul style="list-style-type: none"> • Big Pharma corruption

Step 2	Scenario	Social (TEMPLES)
	1 – A World Adrift	<ul style="list-style-type: none"> • Social-credit style access to healthcare


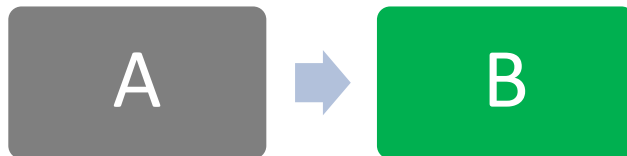
Step 3	People (OPPPTI)/ Social
	Conspiracy theories about Big Pharma and use by the rich

Step 4	Impact on defence and security	Possible Responses	Time to respond	Game-changingness	Regret	(Likelihood)
	Forces health, but not hugely different from wider population	Tightening of world trade and competition rules and standards	Can respond	Not GC	Some regret	Likely

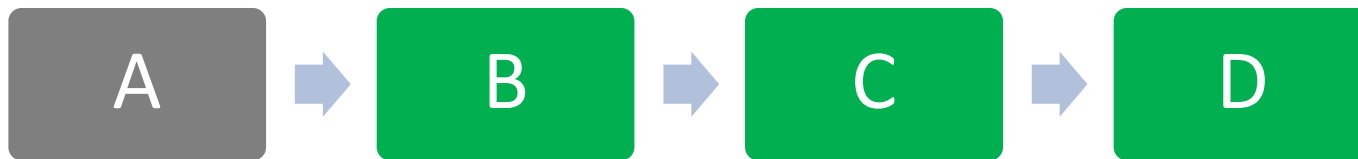
Problem: Doing stuff in our head is quick, but it's easy to miss things and is opaque

Scenario	Insights (& relevant influencing factors)	Impact on defence and security	Possible Responses	Time to respond	Game-changingness	Regret	Likelihood
1	Conspiracy theories about Big Pharma and use by the rich	Forces health, but not hugely different from wider population	Tightening of world trade and competition rules and standards	Can respond	Not GC	Some regret	Likely
1	People frightened to share personal data	Recruitment of personnel more difficult	New incentives to join up	Can respond	Not GC	No regret	Highly likely
2	People want solutions to pandemics and aging	Social unrest and Gov' action	new military tasks	Cannot respond in time	GC	Regret	Likely

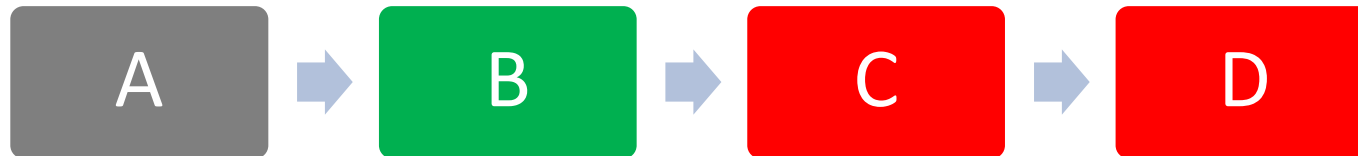
This is the plan



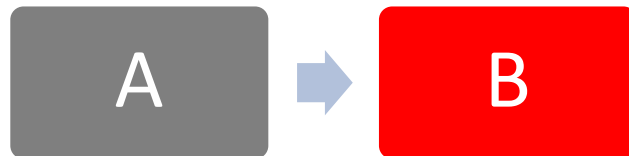
The veil of the future



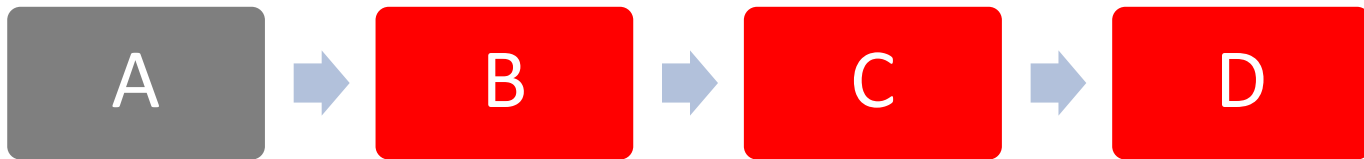
Oh NO !!!



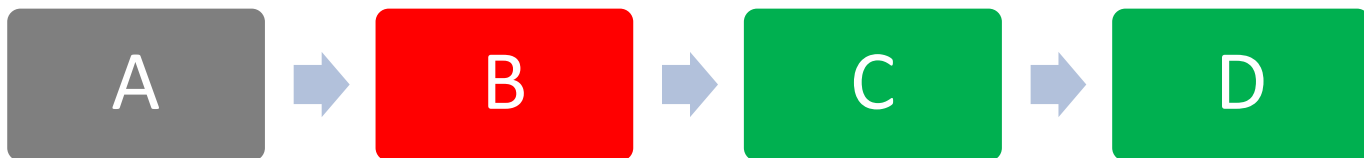
This is a bad idea



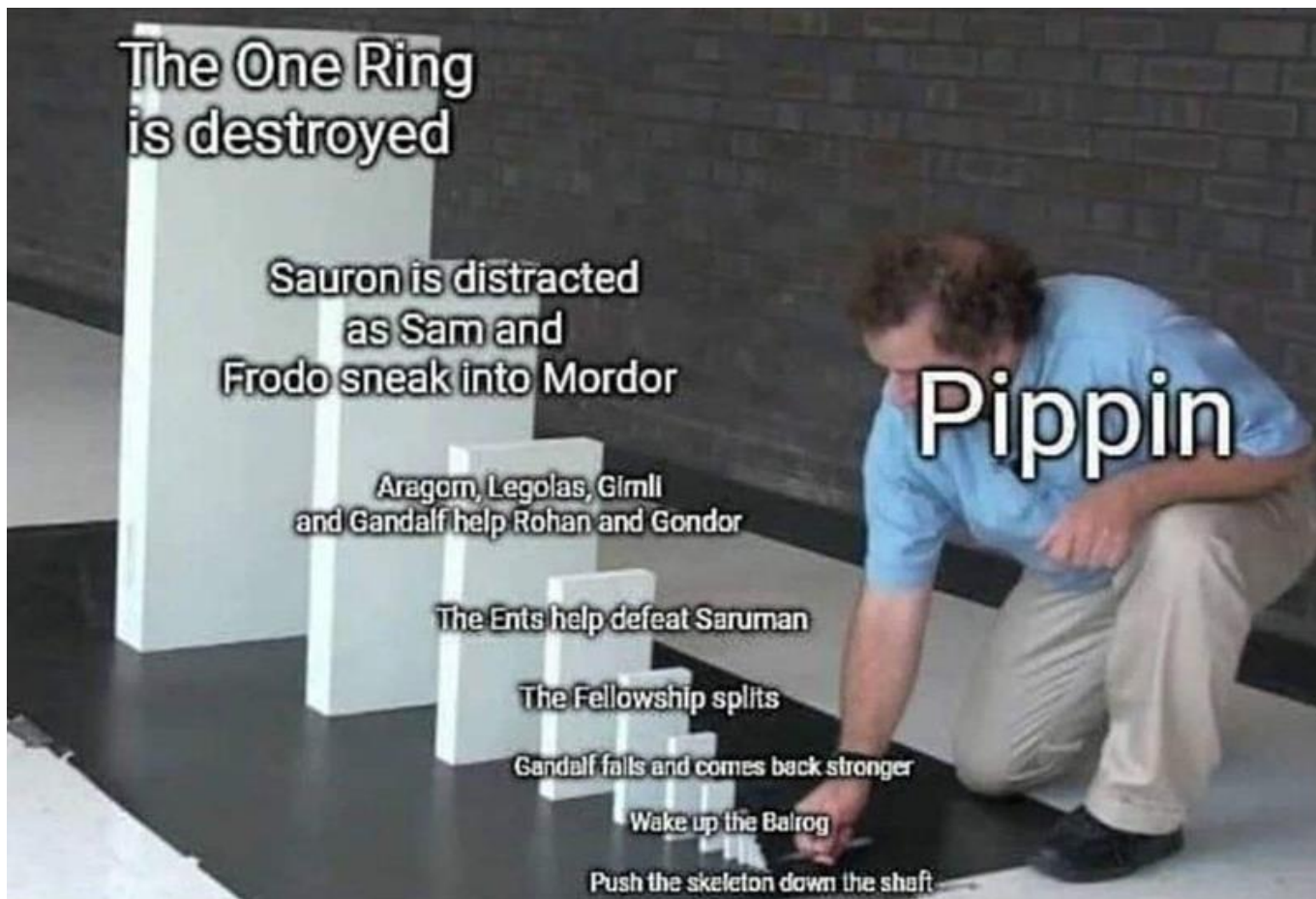
The veil of the future



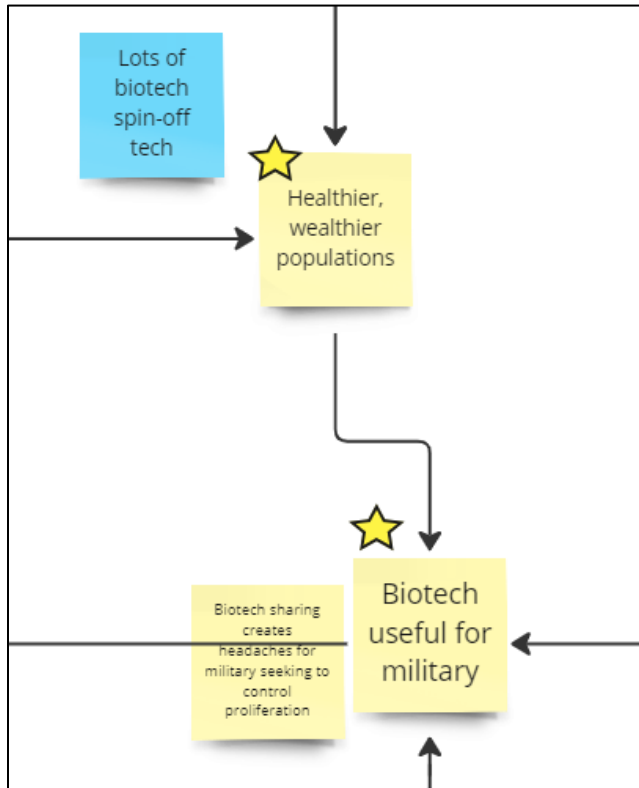
Or was it?



We are part of a greater system

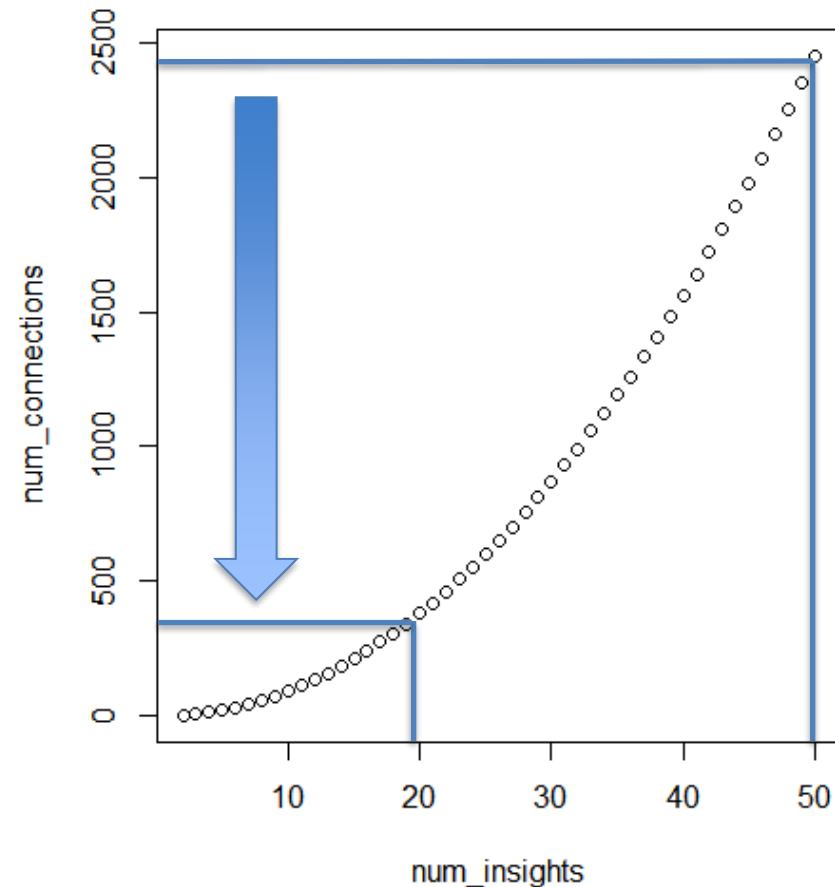
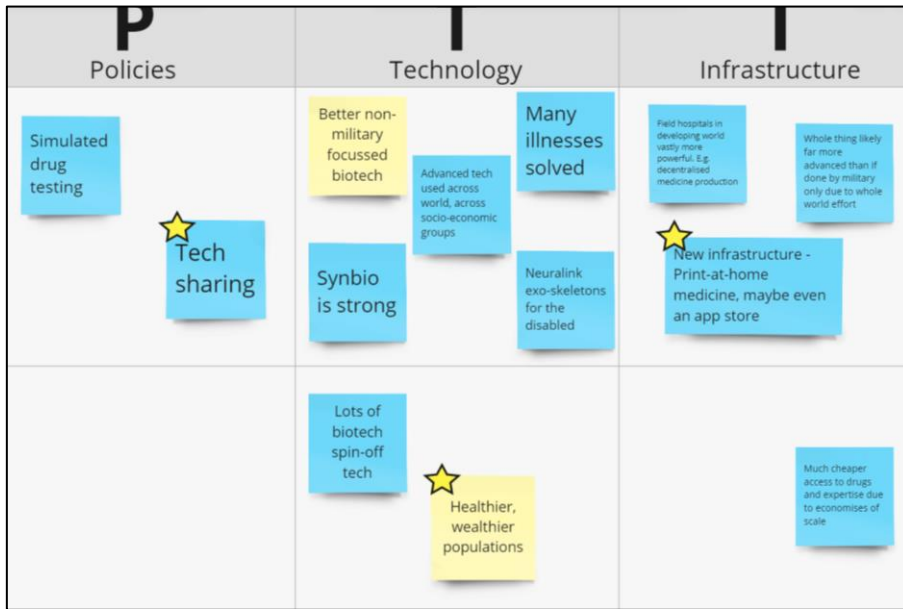


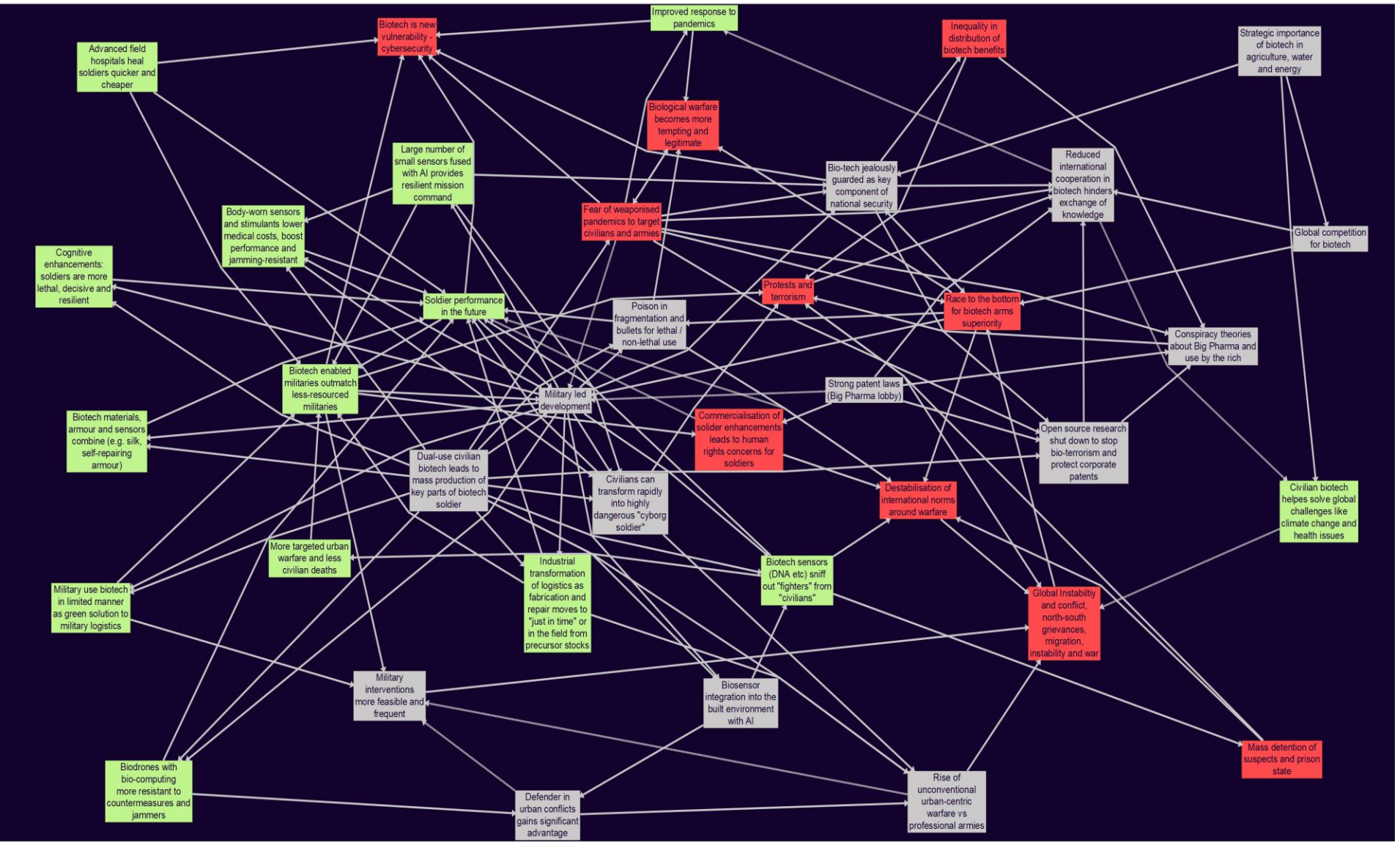
Identify connections



We can do this in the Miro board collaboratively.

- Complexity of connections increases exponentially
- Combine similar ideas and down-select the most interesting nodes (by putting stars on them)
- Look for connections
- Time consuming - sorry





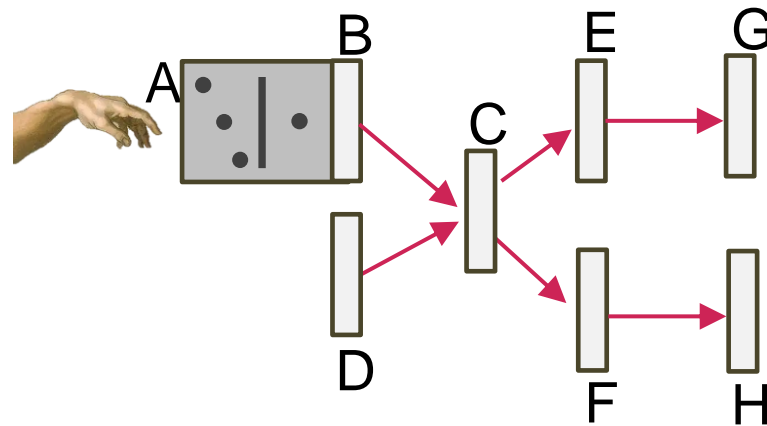
Chains of catalysis

Not definitive cause and effect



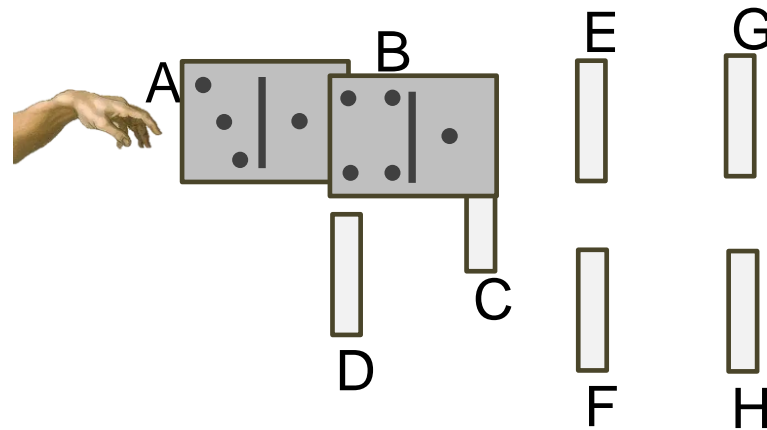
Algorithm

Start with A



Algorithm

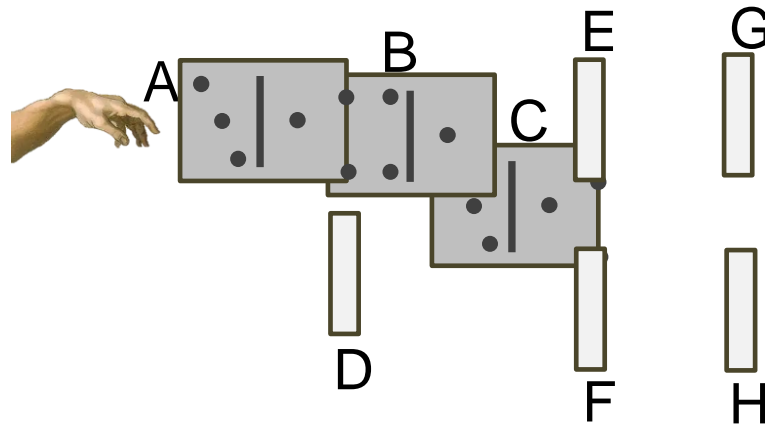
After 1 step...



New dominoes toppled: 1

Algorithm

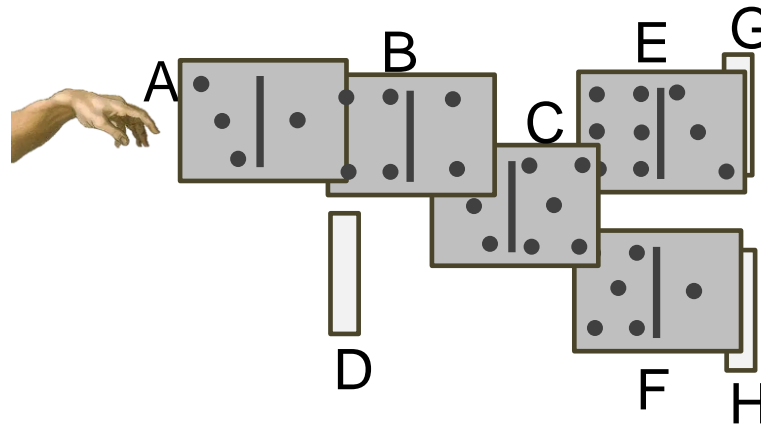
After 2 steps...



New dominoes toppled: 2

Algorithm

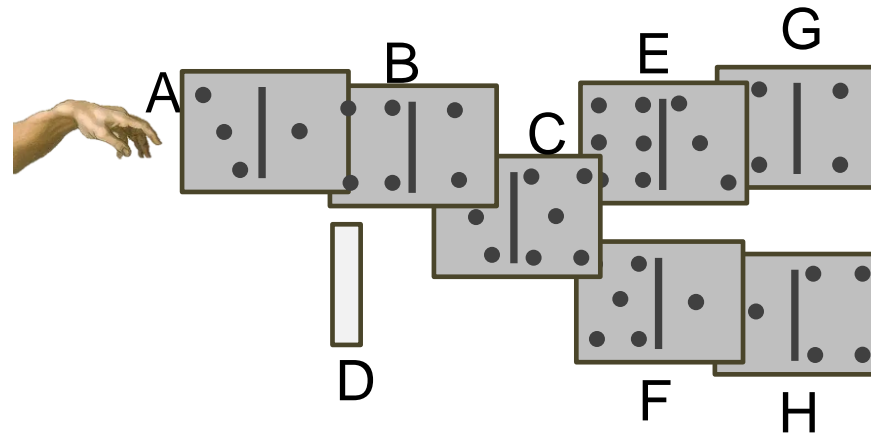
After 3 steps...



New dominoes toppled: 4

Algorithm

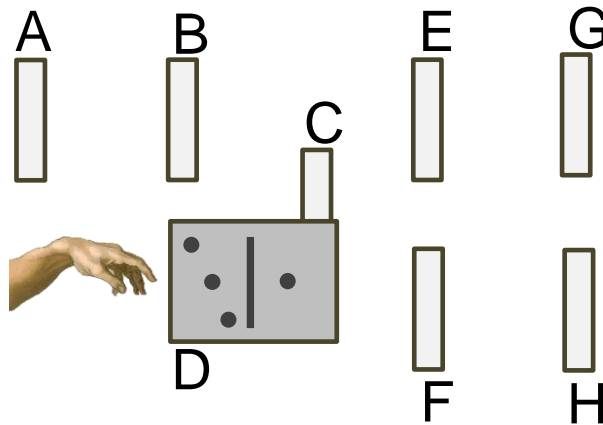
After 4 steps...



New dominoes toppled: 6

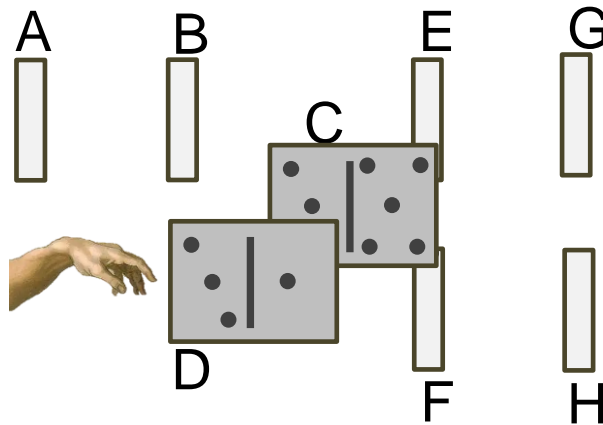
Algorithm

*Go through
each
domino in
turn...*



Algorithm

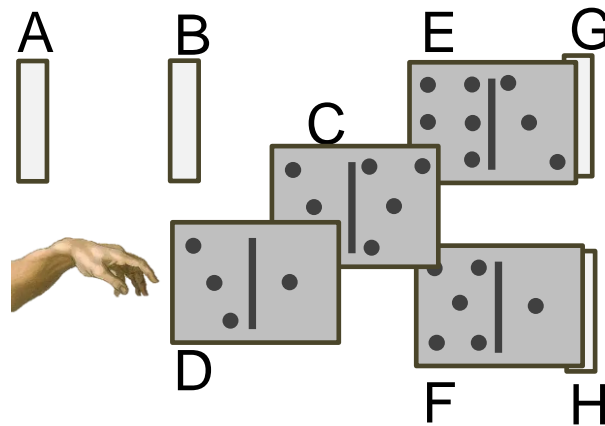
After 1 step...



New dominoes toppled: 1

Algorithm

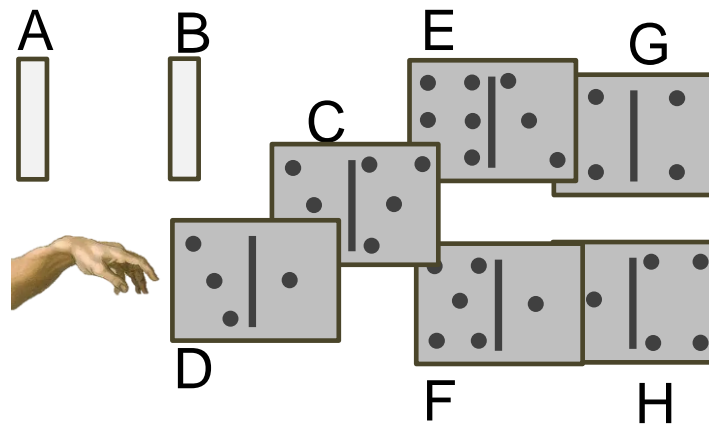
After 2 steps...



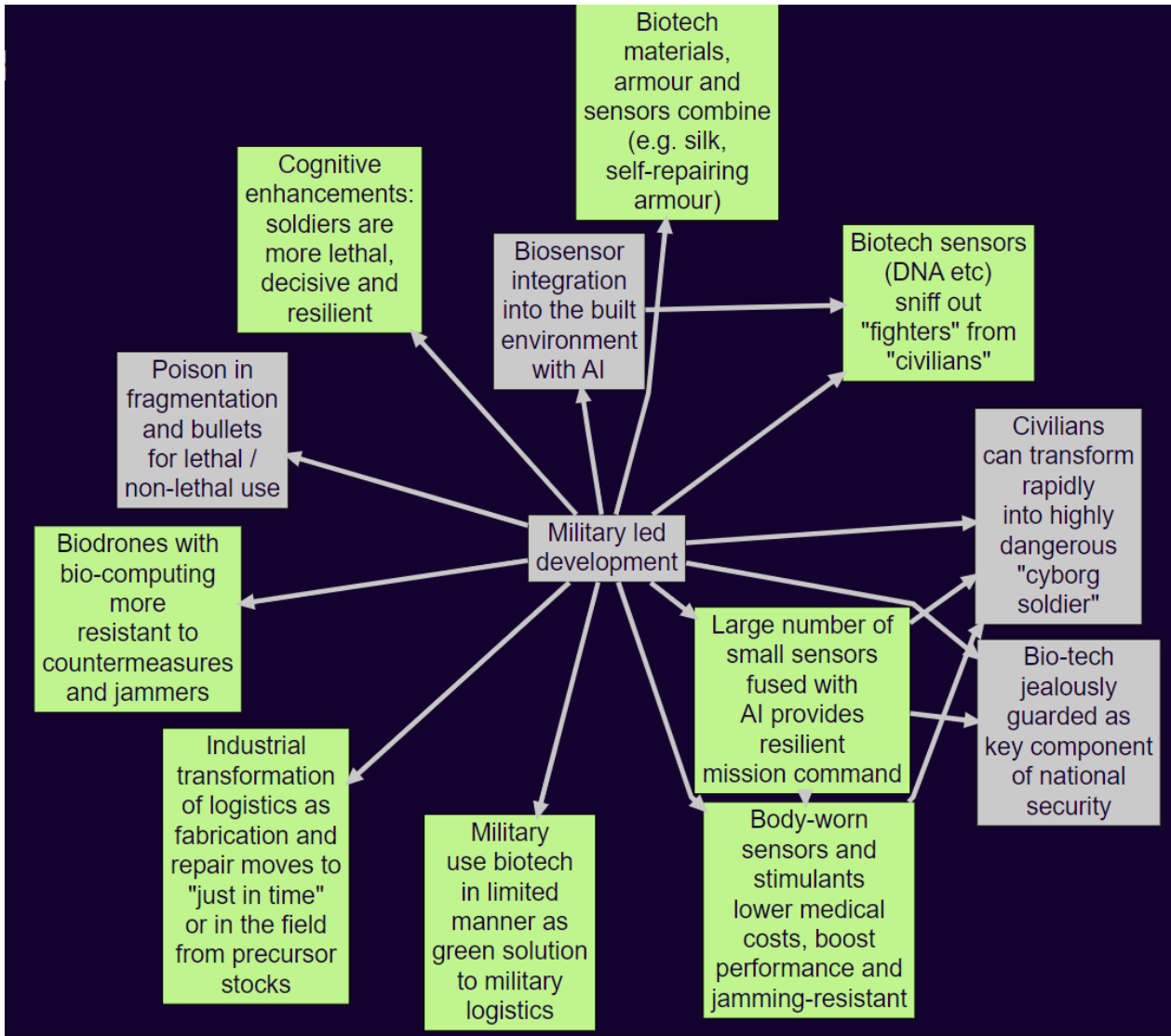
New dominoes toppled: 3

Algorithm

After 2 steps...

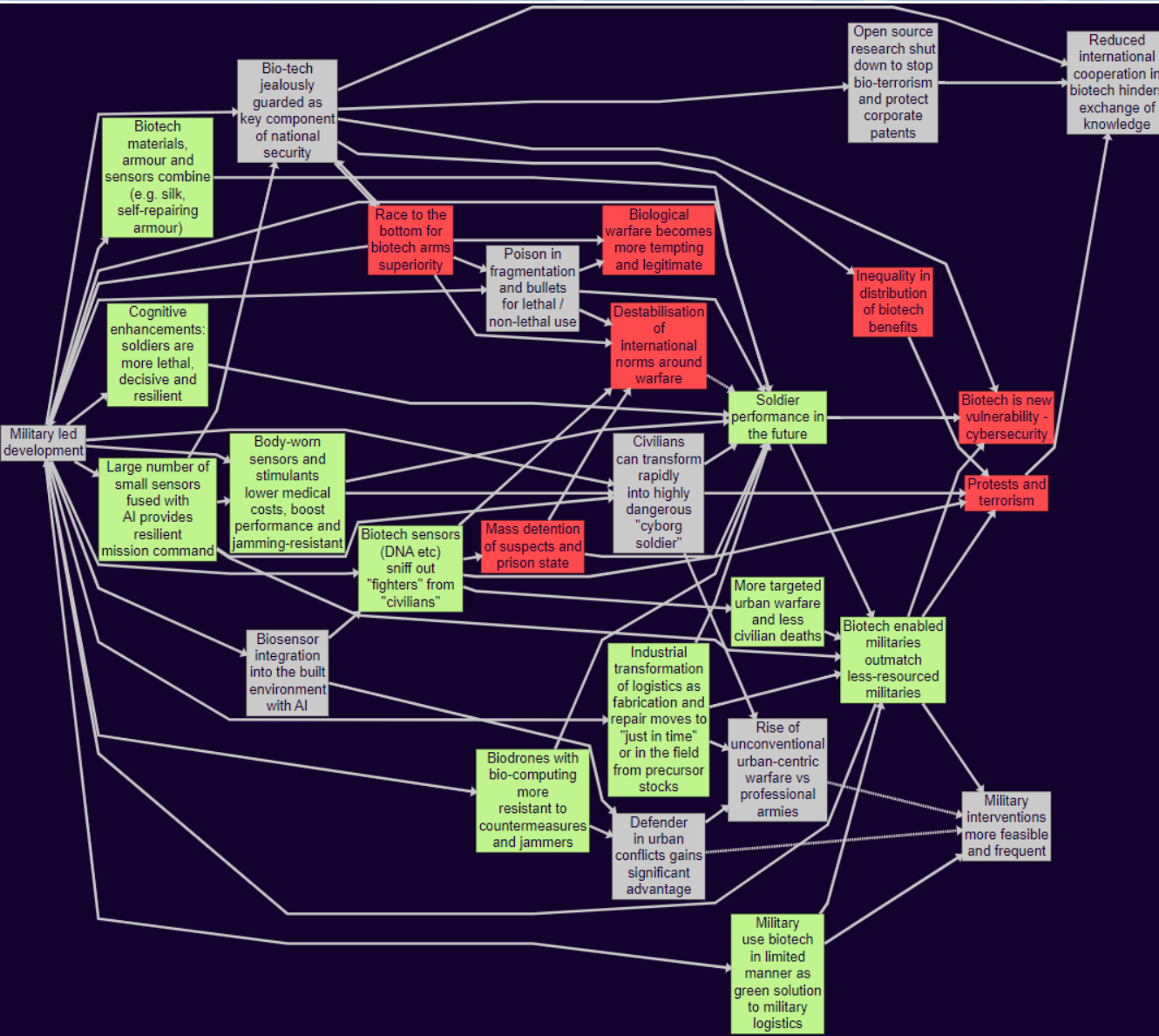


New dominoes toppled: 5



First order consequences of military led development of biotech all good.

Let's sign off on the \$10 billion now?



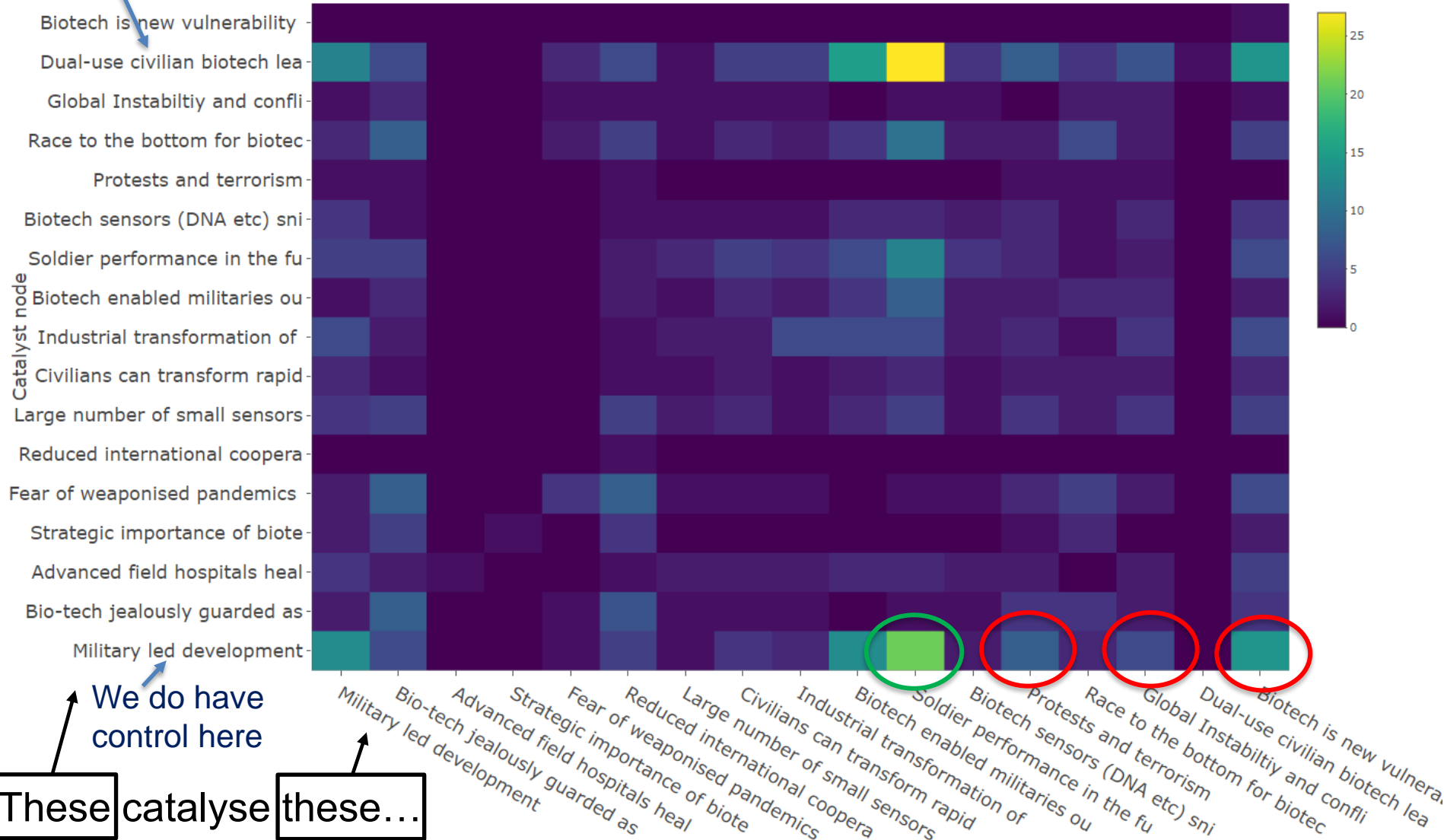
Military led development of biotech also helps catalyse 2nd order issues

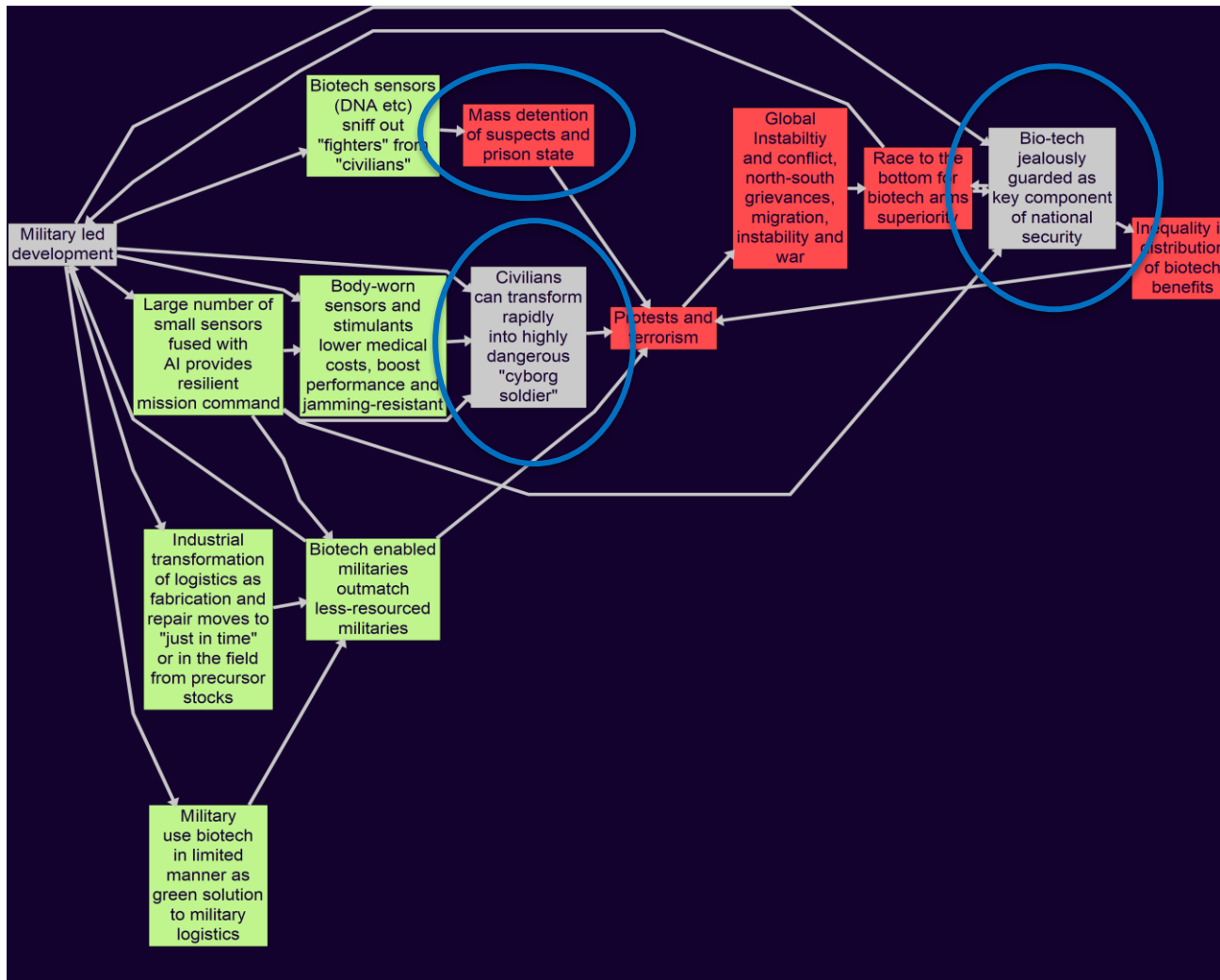
Would we regret the military developing biotech? Can we de-risk?

- Mass detention via enemy-sniffing sensors
 - Biotech frag upsets norms
 - Soldier human rights
 - Civilians turn into lethal biotech cyborgs increasing terrorism & guerrilla warfare
 - Biotech a new vulnerability
-
- Biotech armies superior
 - Advanced hospitals
 - Easier to find the enemy?

We have little control here

Influence map for 3 degrees of influence

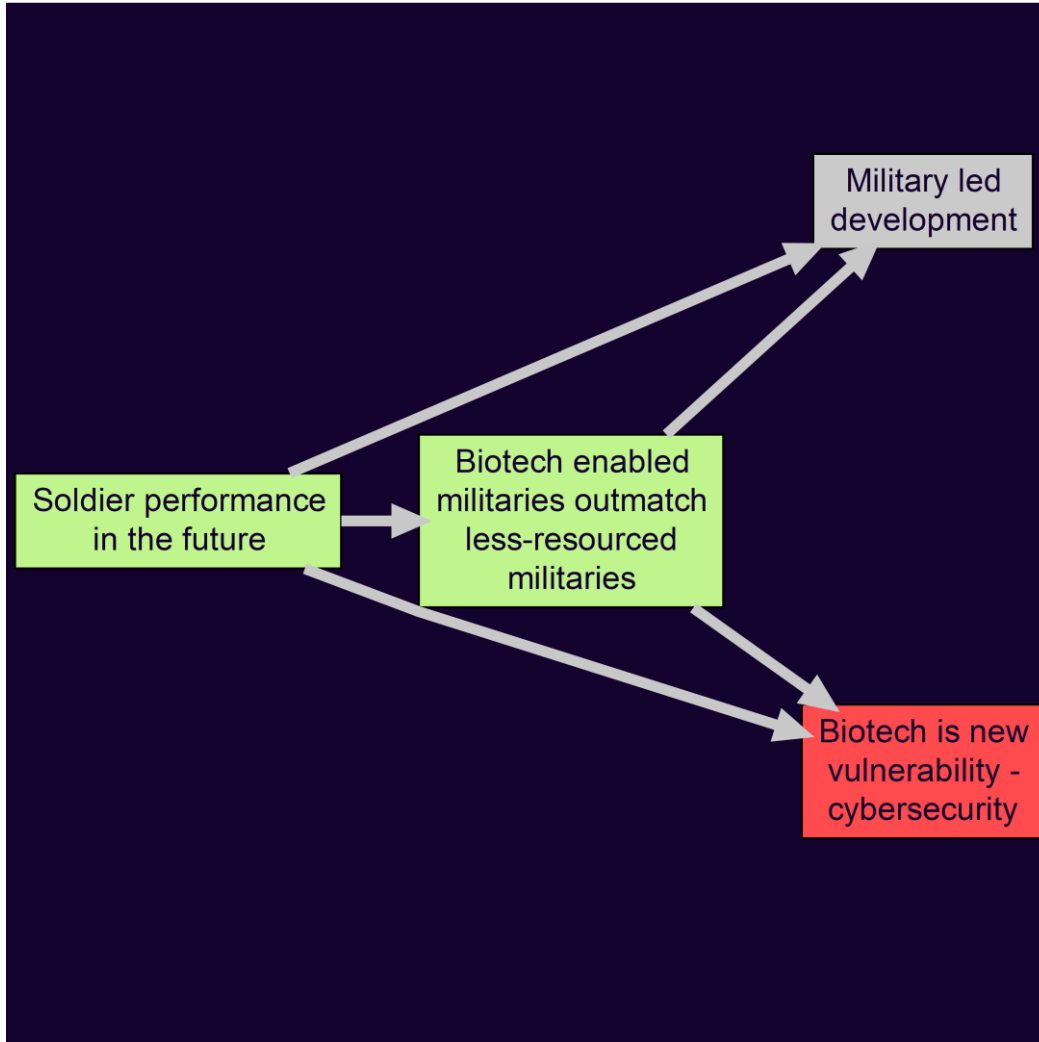




Examining causal chain:

“How does military-led development catalyse protests and terrorism?”

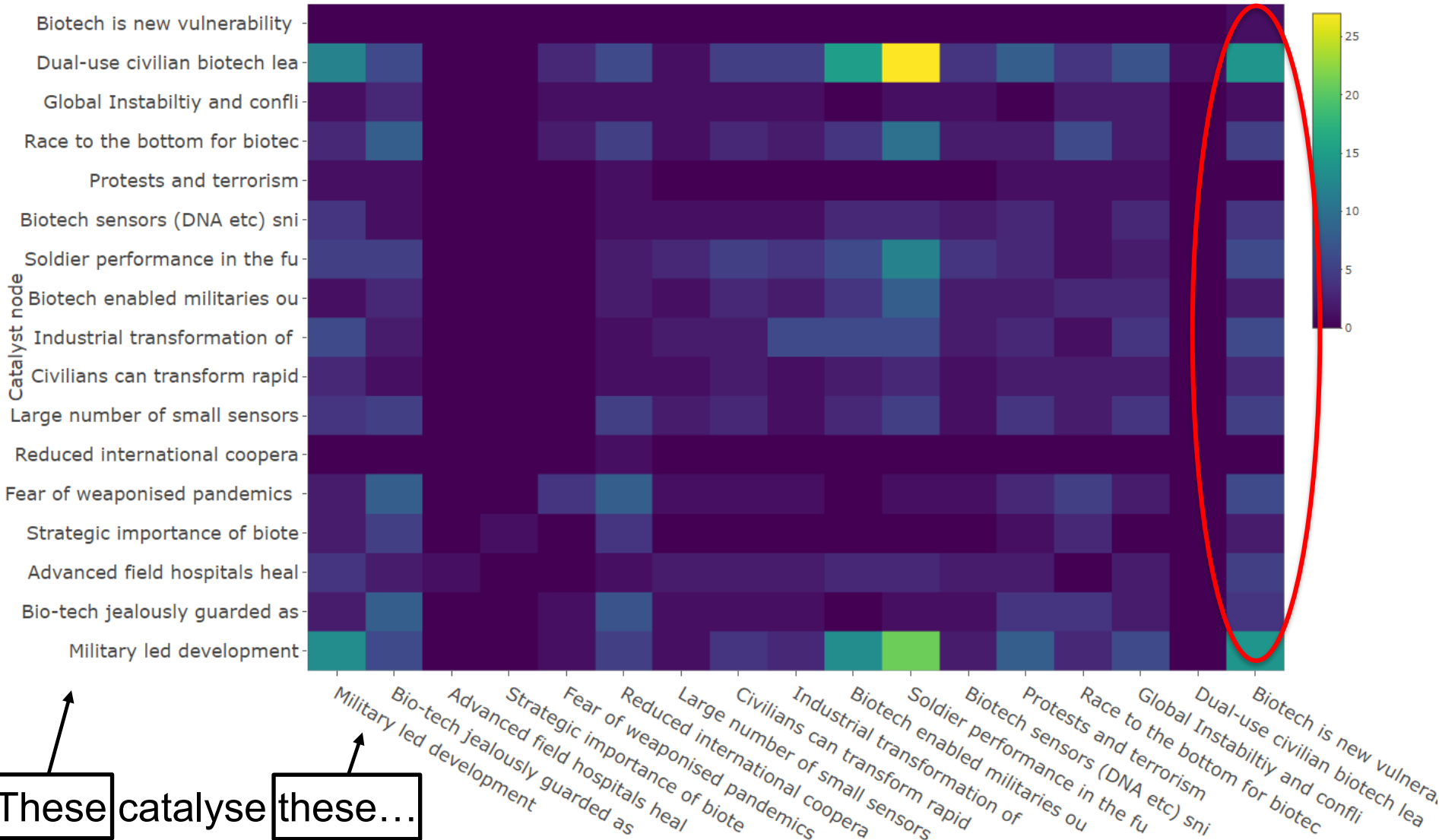
Can we mitigate these?



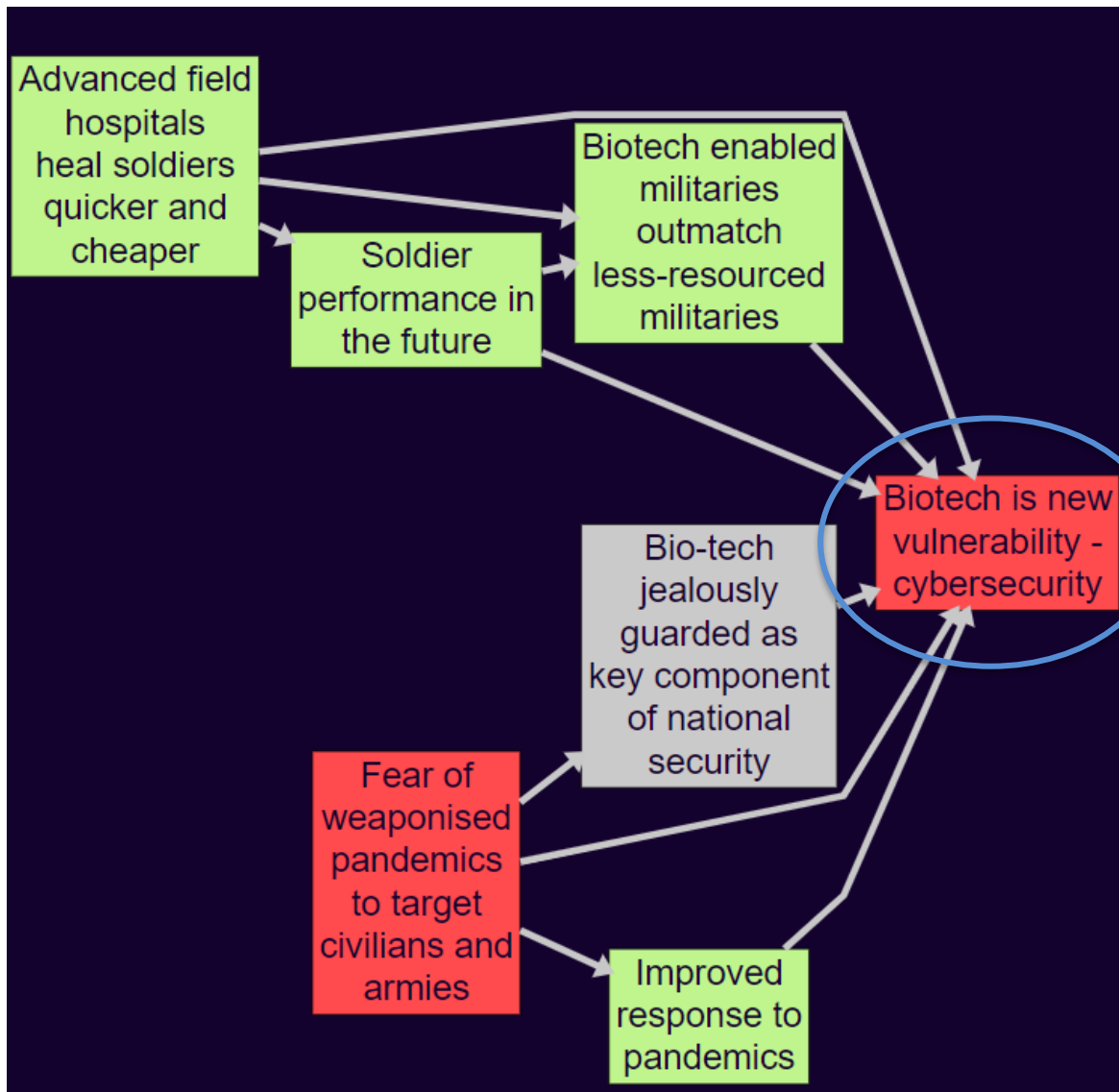
Would we regret improved soldier performance if we got it?

- Biotech is new vulnerability
- Biotech armies superior

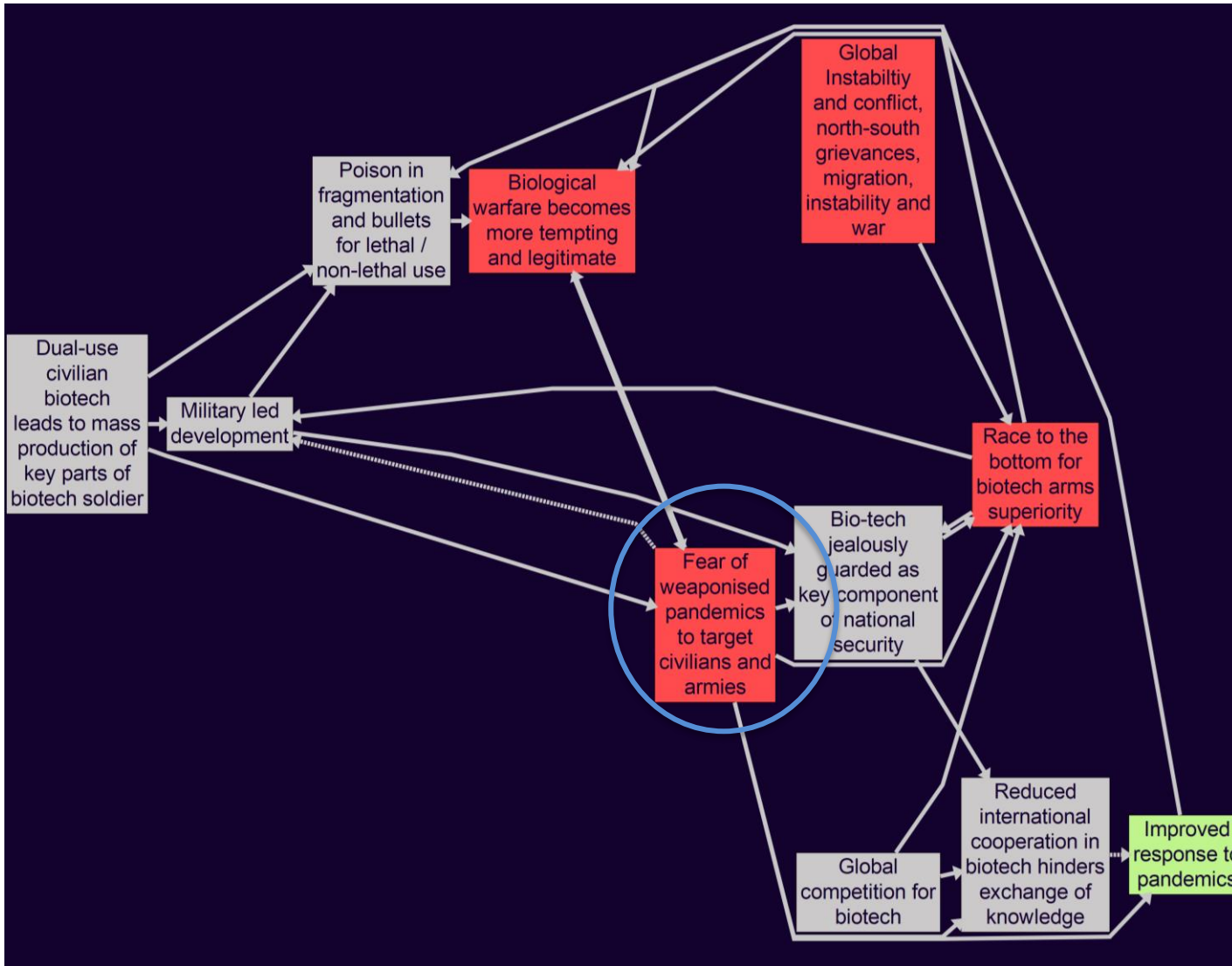
Influence map for 3 degrees of influence



These catalyse these...



Causal chain behind biotech being a new vulnerability



Causal chain behind weaponised pandemics



Linkages sadly not optional

Unintended consequences too severe

Explore wider world and expose gaps in thinking

Use network tools for complex graphs