

Disinformation and misinformation in biological threats

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Over a decade of EUvsDisinfo

UNDERSTAND

What is Disinformation? ▲

The Story of EUvsDISINFO

Propaganda and Disempowerment

Interview with Ukrainian Fact-checkers

"Information War" is a Term Used by the Kremlin to Justify Disinformation

Narratives and Rhetoric of Disinformation ▼

Tactics, Techniques and Procedures of Disinformation ▼

Pro-Kremlin Media Ecosystem ▼

Disinformation and Philosophy ▼



WHAT IS DISINFORMATION?

And why should you care?

Some would say that disinformation, or lying, is a part of human interaction. White lies, blatant lies, falsifications, "alternative facts"; propaganda has followed humankind throughout our history. Even the snake in the garden of Eden **lied to** Adam and Eve!

PRACTICE



Quiz

Disinformation is tricky. Test your resilience with our quiz to see if you can identify disinformation, unreliable information and falsified content and if you know how to think before sharing things online.

[Start Quiz](#)

- A flagship project of the European External Action Service led by the East Stratcom Task Force
- Since 2015
- Not official EU position
- We identify, analyse and raise awareness of disinformation
- Our goal is to help the EU and its partners strengthen responses to foreign information manipulation and interference
- Give tools to stay ahead of the curve
- From threat actors, not mere fact-checking, inauthentic behaviours

EU vs DiSiNFO



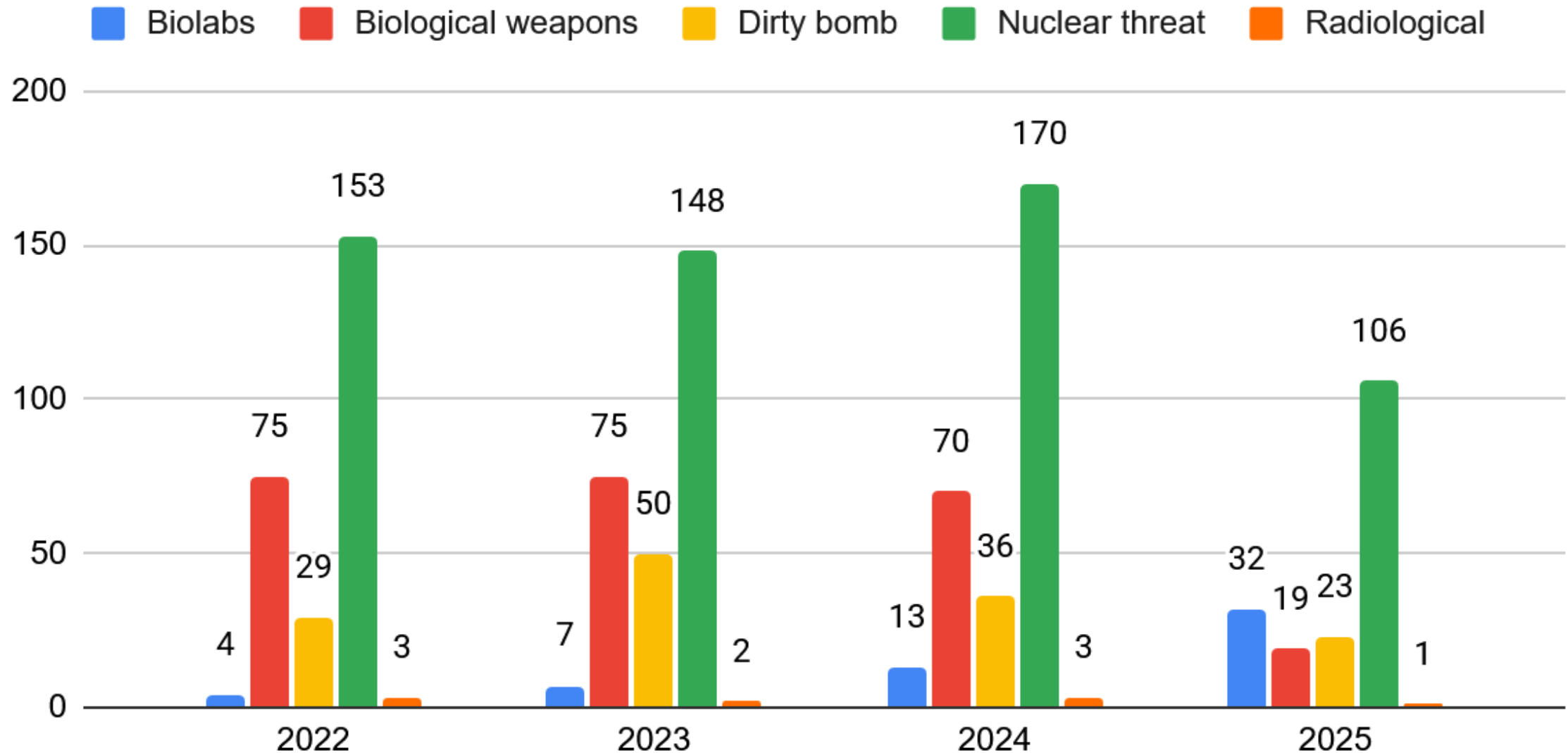
disinformation cases collected and debunked

DATABASE

Biological threat-related cases

Keyword	Nr of debunked cases in the database
“Biolab”	63
“Biological”	576
“Biological weapon”	245
“Biological threat”	138
“Biological warfare”	94
“Animal”	52

WMD-related cases



Disinformation tactics/ Why it matters

Misrepresentation of scientific work

Public health laboratories presented as military facilities.

Appeal to false authority

Quoting “experts” or officials to create credibility.

Historical analogies

References to past crimes or unethical experiments.

Risks of biological disinformation

Erosion of trust in science

Undermining public health cooperation

Polarization and conspiracy thinking

Biological disinformation campaigns

Recycle long-standing narratives

Exploit scientific complexity

Use emotional and conspiratorial framing

Serve geopolitical communication strategies

Disinformation tactics/ Why it matters

Biological disinformation often claims:

- Secret biological weapons programs
- Foreign laboratories conducting experiments
- Deliberate spread of diseases
- Experiments on local populations

Why it is effective?

- High emotional impact
- Scientific complexity creates uncertainty
- Easy to link with conspiracy thinking

“The United States operates secret biological laboratories near Russia’s borders.”

Enabling narratives

Biological-threat disinformation usually builds on **pre-existing narratives** that make false claims seem plausible.

A. Conspiracy narratives

The most common frame is that **powerful actors secretly created or manipulated biological threats**.

Examples:

Pandemic was planned (“plandemic”)

Virus created as a bioweapon

Secret biological laboratories

B. Anti-science and anti-elite narratives

Another enabling narrative is that **scientists, pharmaceutical companies, and governments are corrupt or hiding the truth**.

Typical claims:

“Big Pharma suppresses cures”

“Scientists exaggerate pandemics for funding”

“Vaccines are tools of social control”

These narratives fuel **vaccine hesitancy and distrust in public health measures**.

Conspiracy narratives

Anti-science and anti-elite
narratives

“Natural immunity” and
alternative medicine
narratives

Geopolitical blame narratives

Enabling narratives

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C. “Natural immunity” and alternative medicine narratives

Some misinformation promotes **simple solutions** or traditional remedies.

Examples:

herbal cures

alcohol, bleach, or household substances

dietary or religious remedies

Such claims circulated widely during COVID-19 and were identified as a major category of health misinformation.

D. Geopolitical blame narratives

Biological threats are often framed as **weapons used by rival countries**.

Examples:

virus created by another country

foreign labs conducting secret research

pandemics used as geopolitical tools

These narratives appear in **information warfare contexts**

Conspiracy narratives

Anti-science and anti-elite
narratives

“Natural immunity” and
alternative medicine narratives

Geopolitical blame narratives

The typical lifecycle

**EU vs
DiSiNFO**

Stage 1

Stage 3

Stage 5

Stage 2

Stage 4

Uncertainty

At the start of an outbreak: scientific knowledge is incomplete, contradictory information circulates. This creates fertile ground for speculation.

Rumour formation

Early rumours emerge about: the origin of the pathogen, methods of transmission, miracle cures

Narrative consolidation

Certain stories become dominant narratives: Examples during COVID-19: lab-leak conspiracy, 5G causes disease, vaccines alter DNA

Political weaponization

Narratives become politically instrumentalized by activist groups, foreign influence campaigns, ideological movements

Long-term belief communities

Communities form around the narrative (anti-vaccine groups, conspiracy communities). These communities continue spreading narratives long after the original crisis ends.

Rhetological fallacies

1. False cause (Post hoc / correlation = causation)

This fallacy assumes that because one event follows another, the first must have caused the second. In biological misinformation, coincidental timing is often presented as proof of causality.

Claim: “After receiving the COVID-19 vaccine, thousands of people reported health problems. Therefore, the vaccine caused these problems.”

2. False dichotomy (black-and-white thinking)

The argument presents only two options when many possibilities exist.

Claim: “Either you oppose pandemic restrictions or you support a global authoritarian regime.”



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3. Conspiracy thinking (unfalsifiable reasoning)

Claims rely on a hidden plot by powerful actors. Lack of evidence is interpreted as proof that the conspiracy is well concealed.

Claim: “Pharmaceutical companies and governments hide the real origin of viruses to protect secret military programs.”

4. Appeal to fake authority

The argument relies on individuals presented as experts who are not actually qualified in the relevant field.

Claim: “A famous cardiologist says vaccines change your DNA.”

5. Cherry picking

Only selected evidence supporting a claim is presented, while contradictory data is ignored.

Claim: “This study shows masks do not work.” (ignoring dozens of studies showing the opposite)



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6. Straw man

An opponent's argument is misrepresented to make it easier to attack.

Claim: "Scientists say viruses come from nature, so they claim laboratories can never cause outbreaks."

In reality, scientists acknowledge both natural and laboratory risks.

7. Slippery slope

The claim argues that a small action will inevitably lead to extreme consequences without evidence for the chain of events.

Claim: "If governments introduce vaccine certificates, soon they will control everyone's medical choices and personal freedoms."

8. Anecdotal evidence

Individual experiences are used as proof instead of systematic data.

Claim: "My neighbour got vaccinated and became seriously ill, so vaccines are dangerous."

Personal stories do not represent population-level evidence.



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Thank you!



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