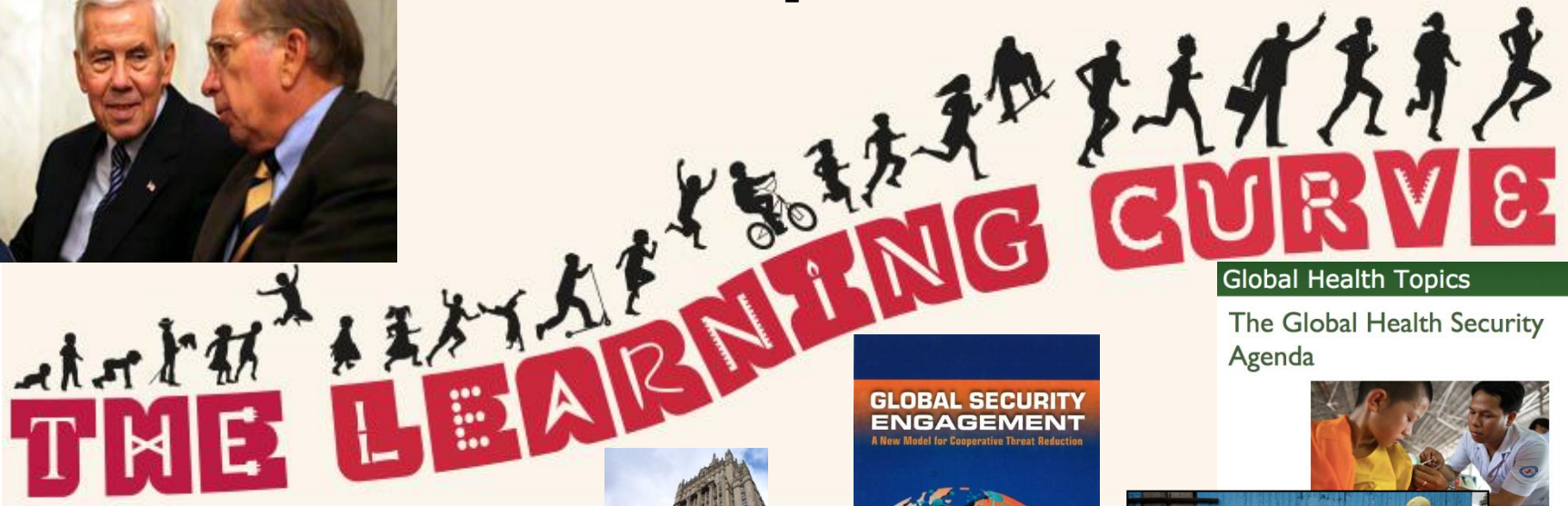


Global (Bio)Security Engagement

David R. Franz

18 Sep 17

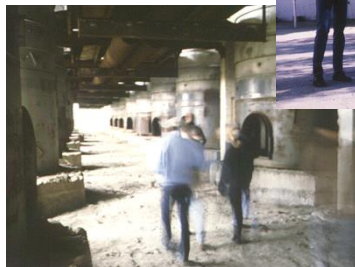
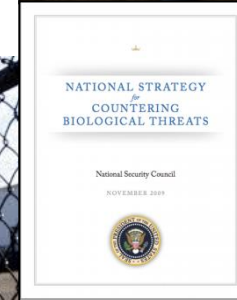
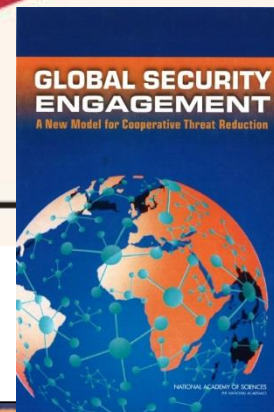


Global Health Topics

The Global Health Security Agenda



and detect, and fight
it's a pandemic like
the disease." -President



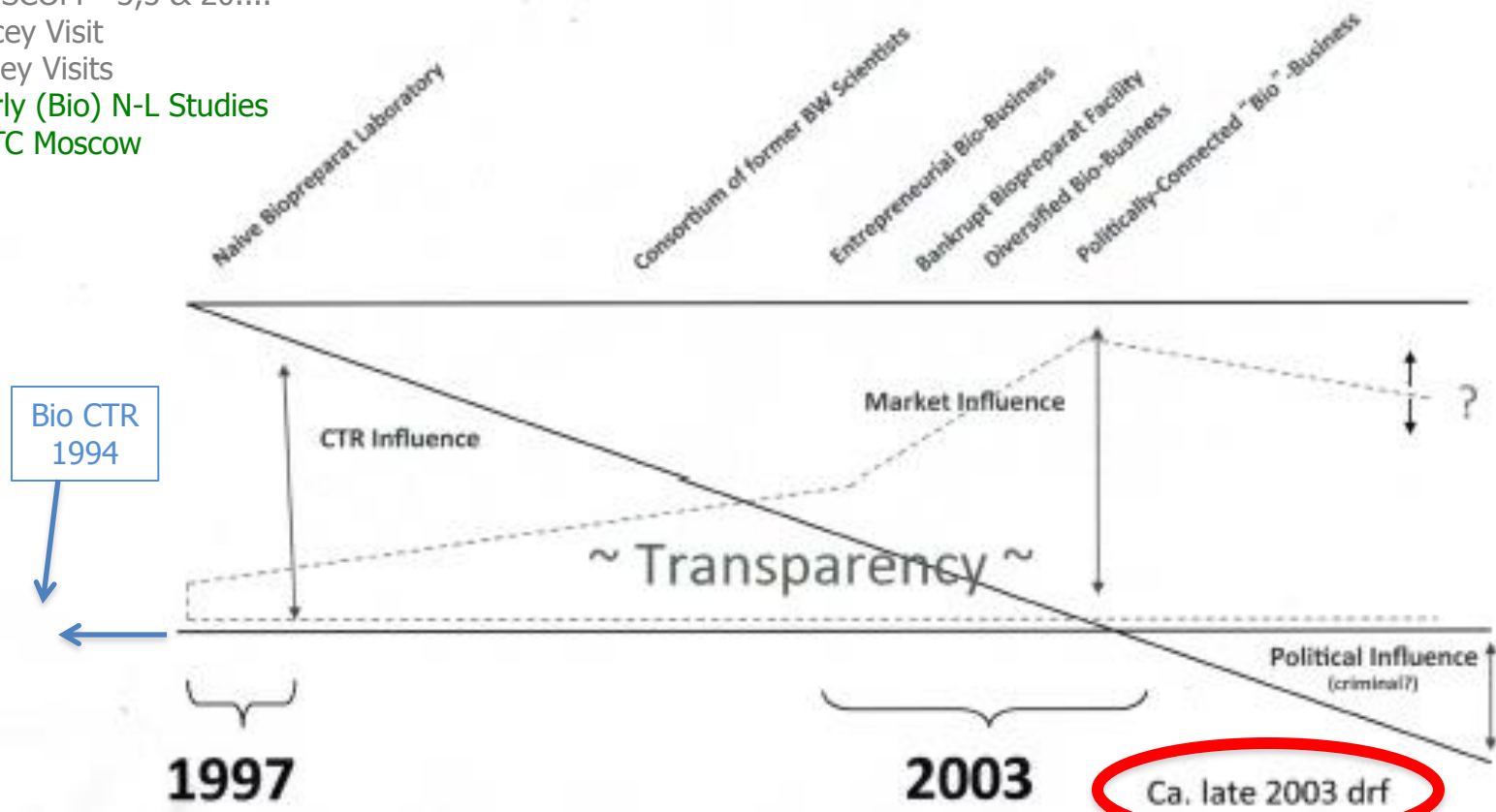
Random Thoughts

- An Observation...from the early days
- The Search for Metrics
- Sustainability & Culture
- Understanding & Political Support
- Impact of New Technologies
- Impact of Domestic Policy
- Human Factors...

The Influence of Bio-CTR Programs in Russia

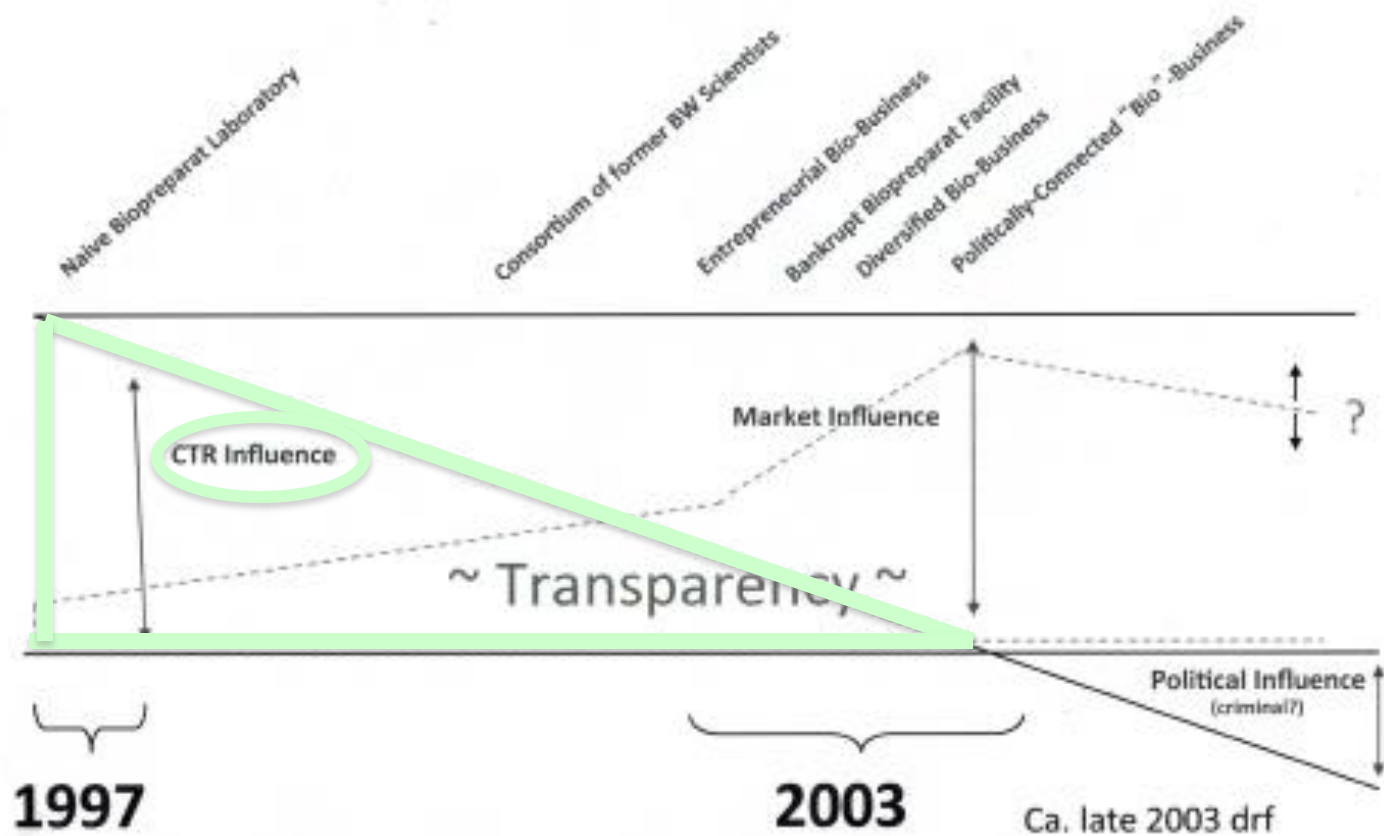
(...on Biopreparat Facilities and Capabilities)

- 91 Soviet Visit to US labs
- 92 Trilateral Agreement
- 93 UNSCOM---3,5 & 20....
Lacey Visit
- 94 Maley Visits
Early (Bio) N-L Studies
ISTC Moscow



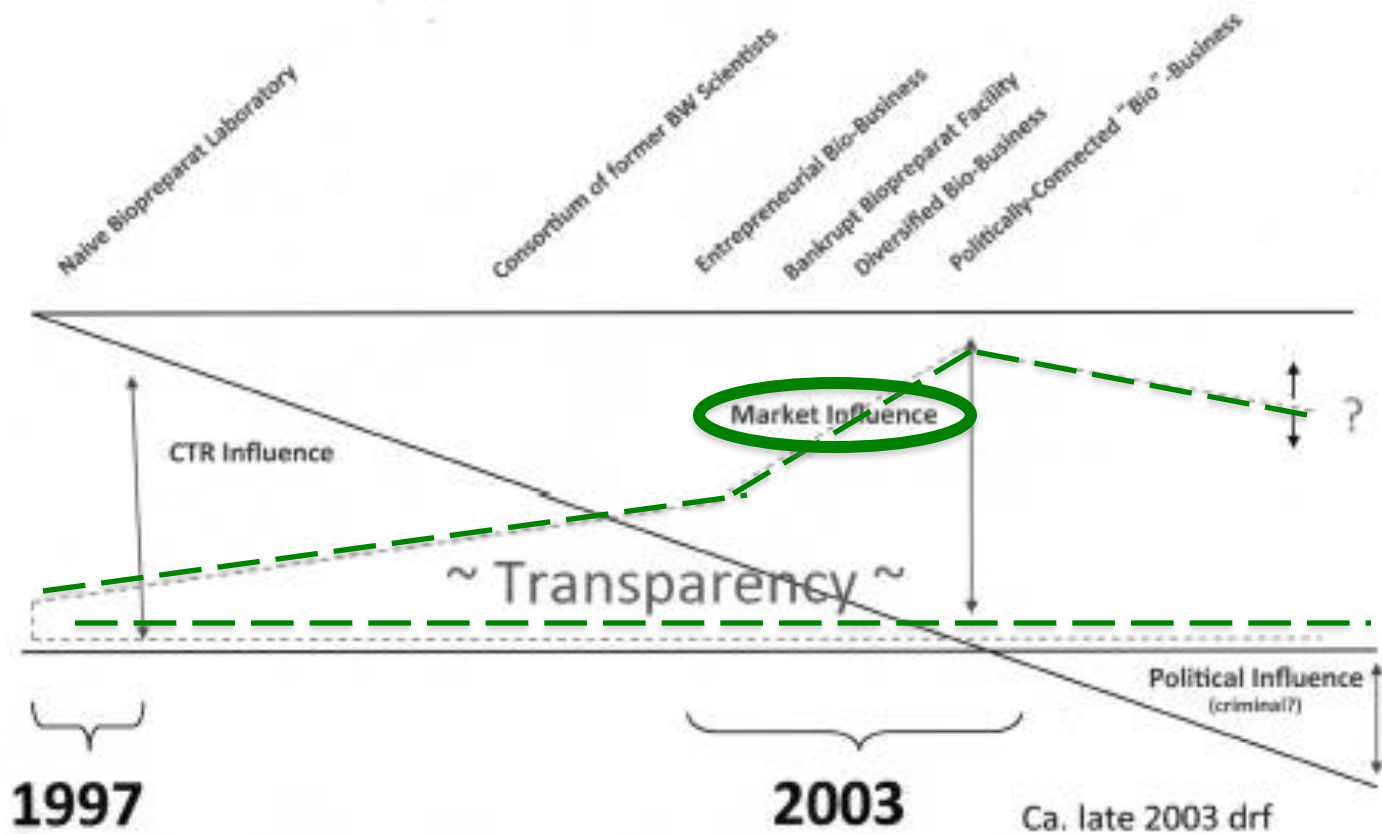
The Influence of Bio-CTR Programs in Russia

(...on Biopreparat Facilities and Capabilities)



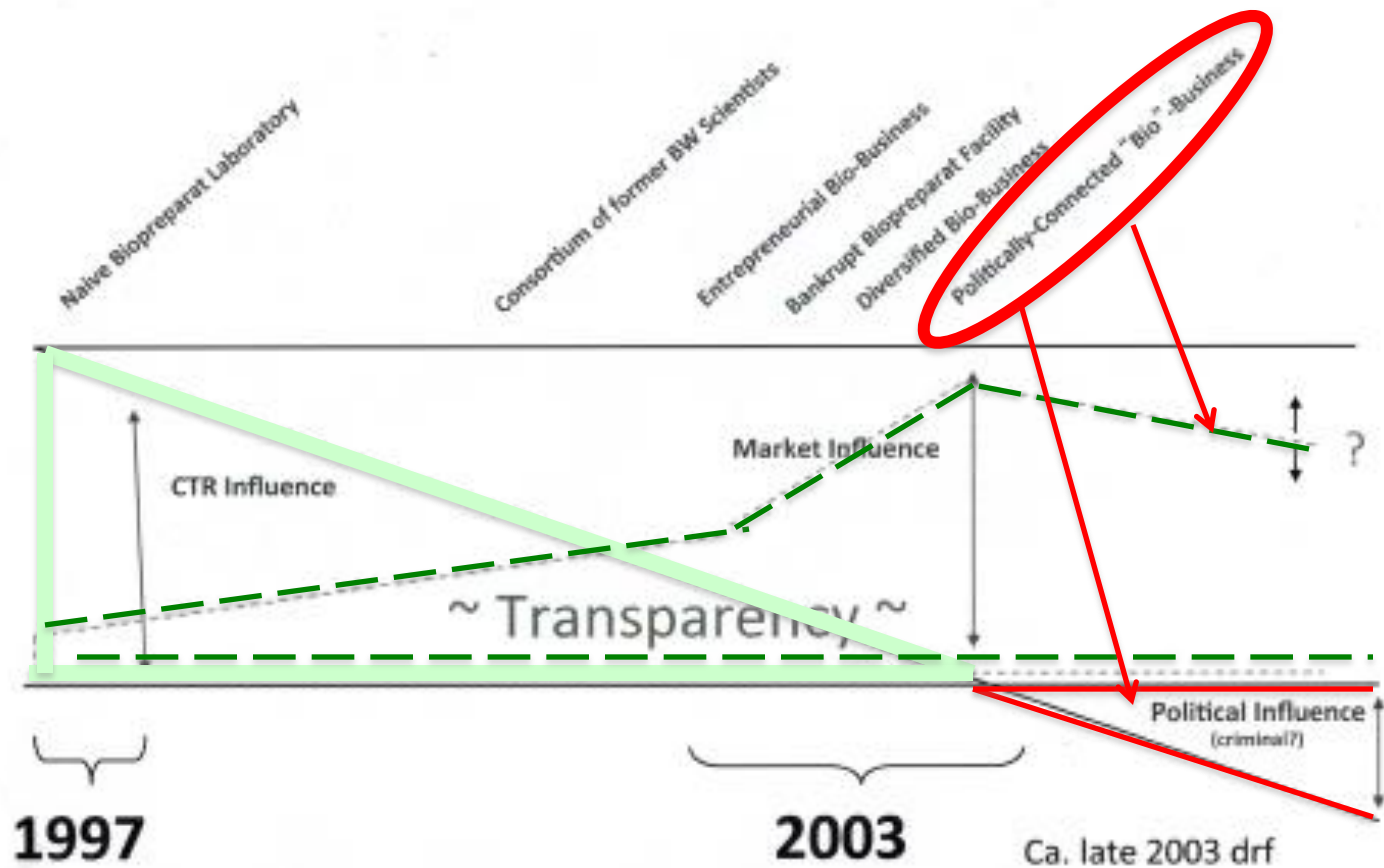
The Influence of Bio-CTR Programs in Russia

(...on Biopreparat Facilities and Capabilities)



The Influence of Bio-CTR Programs in Russia

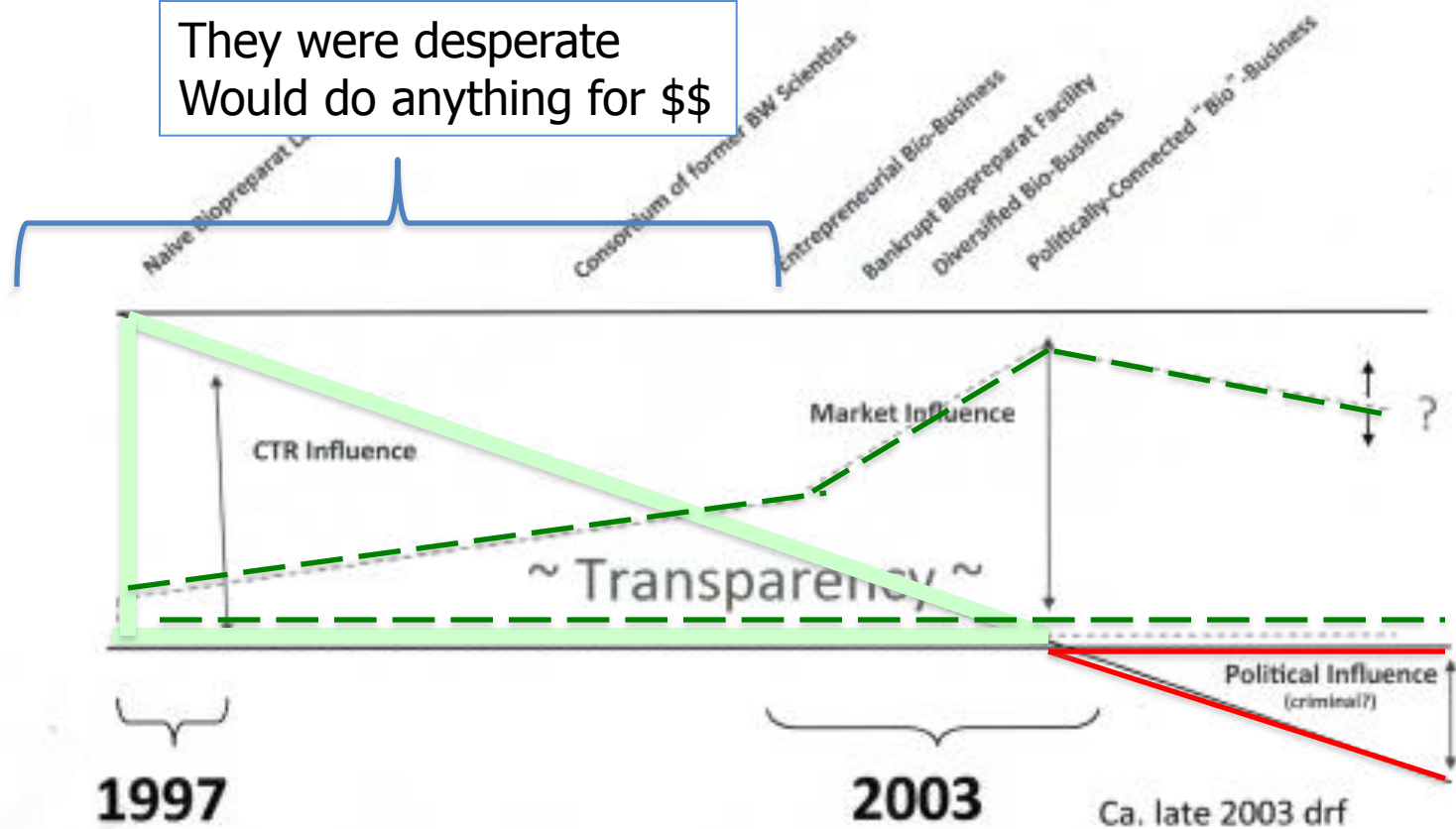
(...on Biopreparat Facilities and Capabilities)



The Influence of Bio-CTR Programs in Russia

(...on Biopreparat Facilities and Capabilities)

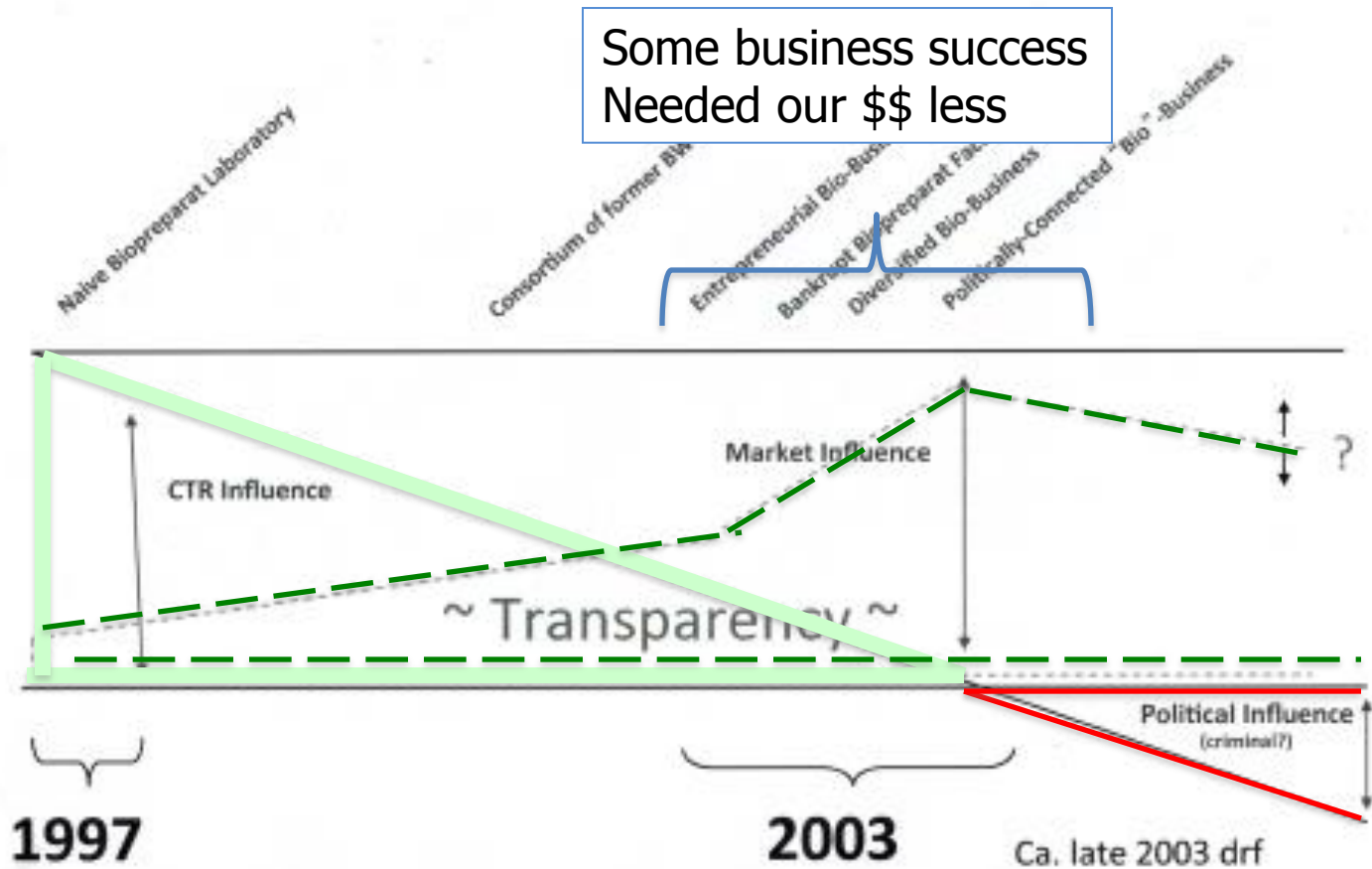
They were desperate
Would do anything for \$\$



The Influence of Bio-CTR Programs in Russia

(...on Biopreparat Facilities and Capabilities)

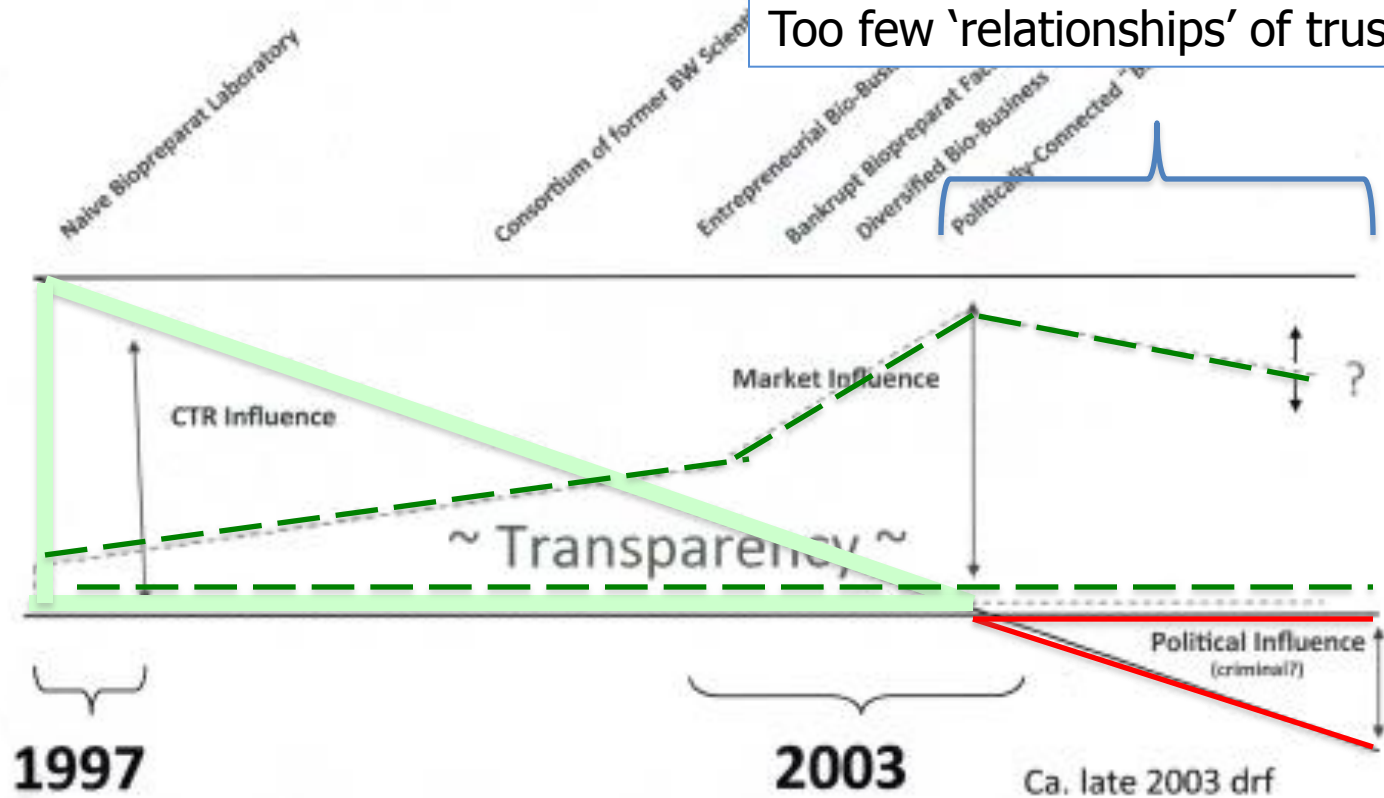
Some business success
Needed our \$\$ less



The Influence of Bio-CTR Programs in Russia

(...on Biopreparat Facilities and Capabilities)

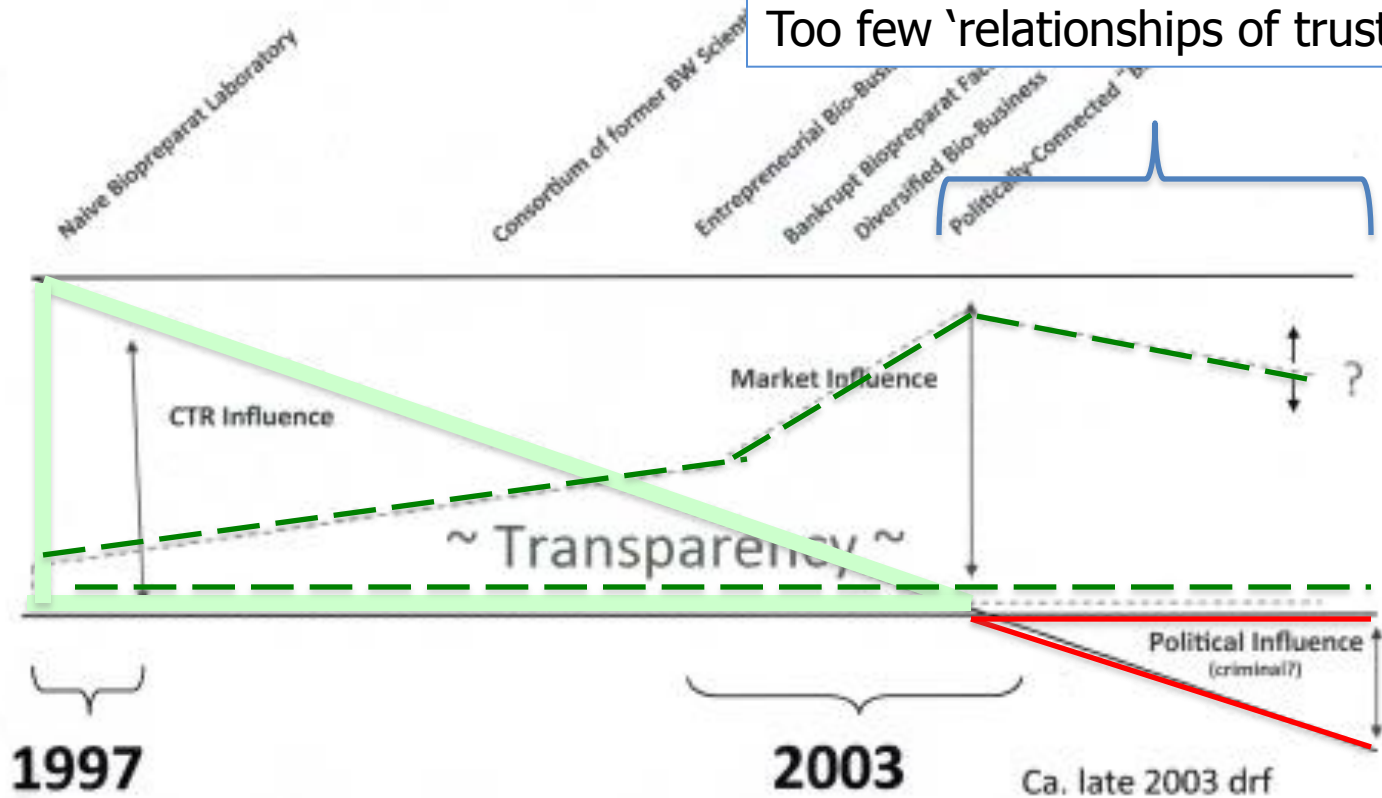
Political/Criminal Involvement
Too few 'relationships' of trust



The Influence of Bio-CTR Programs in Russia

(...on Biopreparat Facilities and Capabilities)

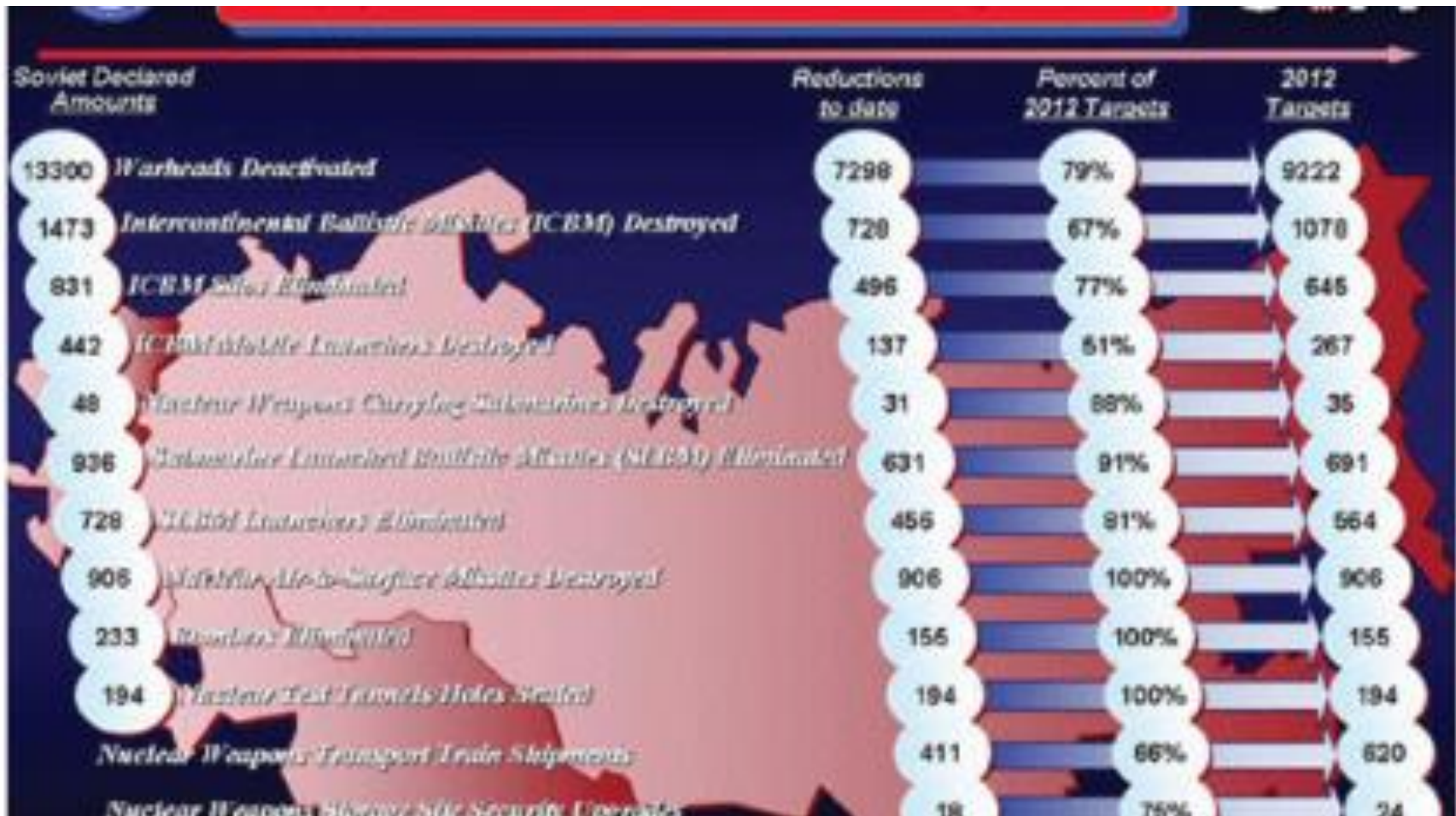
Political/Criminal Involvement
Too few 'relationships of trust'



Last Bio Engagement Oct 1014

The Scorecard

A Flawed Model...for Life Sciences



The Search for Metrics

How do we know it's working?



Expensive Studies and—often—*unimplemtable* answers
...often by people who 'haven't been there'

"It is possible to successfully accomplish what's easily measurable and fail in the engagement"

How do we know it's working?

Op-Ed – With the Changing Biological threat...smart international engagement policy would lower cost and increase national security.



David R. Franz, DVM, Ph.D.
Former Commander
US Army Medical Research Institute of Infectious Diseases

- 1) Using taxpayers dollars **efficiently**?
- 2) Is our partners true **health and security improved**?
- 3) Have our partners '**bought in**' to the partnership?
- 4) Are we developing **sustainable** capabilities?
- 5) Have we built long-term relationships of **trust**?

Federation of American Scientists
2012
Google: "FAS Franz International"

"There is no technical solution...": In 1998, after we understood the enormity of the Soviet offensive program and the potential of the Iraqi one to disrupt, Nobel Laureate Joshua Lederberg said, "There is no technical solution to this problem of biological warfare. It needs an ethical, human and moral solution, if

How to Sustain a Healthy Culture?



ENGAGING THE STATES OF THE FORMER SOVIET UNION IN HEALTH SECURITY

David R. Franz

How We Engage Is More Important than What We Engage In

Human relationships are the glue of engagement programs. Government funding agencies or congress often mandate metrics of engagement. If the measure of success is to “build a containment laboratory and a security system around it,” our contractors go in with a “project” mindset. Just get it done!

Such international projects can actually do harm if the human relationships are not positive—and we have no way of knowing how the upgraded biological facilities will be used after we depart. However, if real scientists and clinicians engage for mutually relevant reasons, the outcome is

2014

But, it doesn't scale well...

The US Centers for Disease Control and Prevention and our overseas military laboratories have a positive reputation in many parts of the world because they focus on real health needs and long-term relationships. We can establish these trusted and collaborative partnerships with credible people, when technical knowledge is the currency and honesty, integrity, and even a sense of humor are the vehicles. We must, therefore, send credible, knowledgeable experts to meet with their equals. It is taking many of our security-based engagement programs too long to understand and embrace this critical concept.

Political Leaders Understand Fences



A former staffer in one of the security engagement programs told me,
"Showing a congressman a photo of a fence around a laboratory is a powerful tool."



How does Public Health *Engagement Contribute to National Security*

Directly:

- The potential for **early warning** regarding natural, accidental or intentional disease
- Support of **situational awareness** regarding an outbreak or epidemic

Indirectly:

- Opportunities for **regular communication** around a **mutually relevant** topics
- Transparency and **open dialogue** among equals
- Opportunities to build **understanding** and even **trust** between individuals
- Islands of **understanding and trust** between individuals are **contagious**
- Understanding and trust spills over** to ministries and governments
- Where trust exists information flow and **transparency increases**
- A **culture of trust** is an unwelcome AO for radical sub-state groups or individuals



Global Proliferation of Technology

“Every major technology — metallurgy, explosives, internal combustion, aviation, electronics, nuclear energy — has been intensively exploited, not only for peaceful purposes but also for hostile ones.



Must this also happen with biotechnology, certain to be a dominant technology of the [twenty-first] century?”

Jan 1999

International
Health
& the Cold War

'Real
Threat Reduction'

The In-between Period

IHRs

Global Health
'Security'

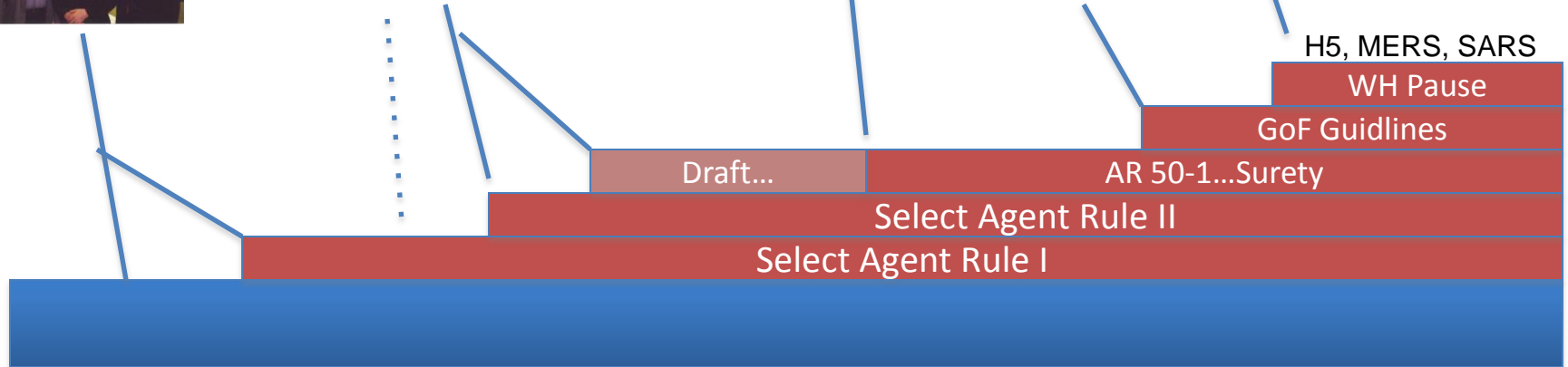
CDC Safety Lapses



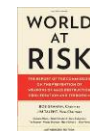
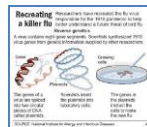
Anthrax/H5N1



Dugway Anthrax

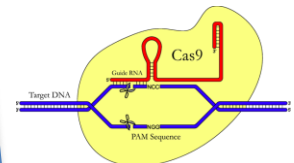


The Impact of
Domestic Policy







PDD-2

GHSA





Scientific Collaborations: How Do We Measure the Return on Relationships?

 **Jeanne M. Fair^{1*}**,  **Martha Mangum Stokes¹**,  **Deana Pennington²** and  **Ian H. Mendenhall³**

¹Cooperative Biological Engagement Program, Defense Threat Reduction Agency, Fort Belvoir, VA, USA

²Department of Geological Sciences, University of Texas at El Paso, El Paso, TX, USA

³Duke-NUS Graduate Medical School, Singapore, Singapore

transdisciplinary effort. And while crisis and circumstance may be the initial catalyst for responding to an outbreak, we provide examples of how transdisciplinary scientific collectives, which are organized and solidified in advance of crises, can transform the way the world responds to outbreaks and in some cases could even prevent one from occurring (1). Current methods for assessing whether a cooperative engagement between countries is producing measurable and sustainable value is based on the ideas of return on investment and do not consider the inherent importance of relationships. In this article, we apply the idea of return on relationships (ROR) and propose a method for measuring ROR, using a system dynamics modeling framework commonly used in epidemiology. Tracking the numerous and diverse scientific collaborations that emerged from a training workshop for biosurveillance of bats held in Singapore in 2014, we apply a methodology for visualizing and measuring the relationship networks and outcomes that result. Additionally, the collaborative, multidisciplinary network that coalesced in response to the Hantavirus outbreak in New Mexico in 1993 is discussed as an example of the long-term benefits of ROR.

It's the People....and science is the glue.



It's the People....and science is the glue.

"While our view of intentional threats, and even natural risks, will never be even close to perfect it could be better; we must be alert to the ever-changing biological world around us.

Friends can and do help us...when and where we have them."

drf 2012