

Leadership...and Cultures of Responsibility



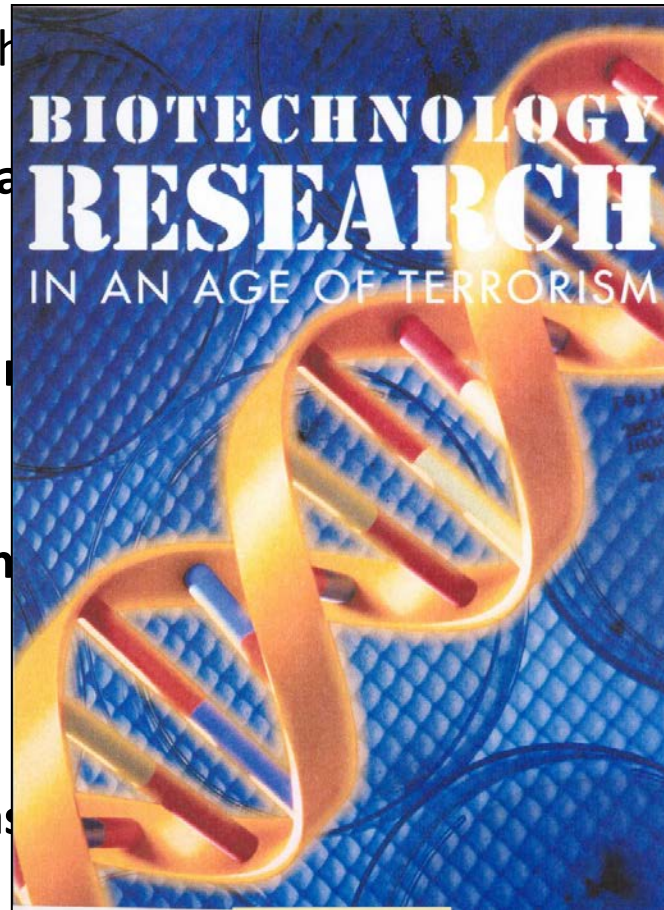
David R. Franz

The (Fink) 'Experiments of Concern'

AKA 'The Seven Deadly Sins'

2003

- (1) Demonstrating how to make a pathogen more virulent, transmissible, or resistant to antibiotics or antiviral agents,
- (2) conferring resistance to antibiotics or antiviral agents,
- (3) enhancing the virulence of a non-pathogen or making a non-pathogen more virulent,
- (4) increasing transmissibility of a pathogen,
- (5) altering the host range of a pathogen,
- (6) enabling the evasion of host defenses or diagnostic modalities or detection,
- (7) enabling the weaponization of a biological agent or toxin.



The (Fink) 'Experiments of Concern'

AKA 'The Seven Deadly Sins'

- (1) Demonstrating how to render a **vaccine ineffective**,
- (2) **conferring resistance** to therapeutically useful antibiotics or antiviral agents,
- (3) **enhancing the virulence** of a pathogen or rendering a non-pathogen virulent,
- ,
- (4) **increasing transmissibility** of a pathogen,
- (5) **altering the host range** of a pathogen,
- (6) **enabling the evasion** of diagnostic/detection modalities or
- (7) **enabling the weaponization** of a biological agent or toxin.



And the Eighth...?',

Calling it 'Dual-Use RESEARCH of CONCERN...'



...rather than 'Responsible Life-Sciences Research'

We were discussing Sustainable Biosafety & Biosecurity Cultures

Biosafety and Biosecurity



*A certificate on the wall
is NOT good enough...*



They've got to be 'in the soup'.

It was an engineer from Tunisia in Casablanca who explained it.

Sustainable **Biological Safety** and **Biological Security** Programs in the Global Networked Life-Sciences Enterprise



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We all find ourselves in different situations

Programs

Energy

Agriculture

Public Health

Food

Environment

Leadership

Ethics

Management

Strategy

Quality

Collaboration

Security*

Partnering

Legal Framework

Some worry only about Survival

“Research occurs where basic needs have been met.”

Senior Health Ministry Official, Sierra Leone; Mar 2012

Patent Law

Safety*

Growth

Honesty

Responsibility...individual & corporate

Finance

Infrastructure

Leadership

Cultural Outcomes

Education

Innovation

*They must be part of the 'soup'

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Anwar Nasim, et al., "Paths to Biosafety and Biosecurity Sustainability: A Message from the MENA Region," *Science & Diplomacy*, Vol. 2, No. 4 (December 2013*).
<http://www.sciencediplomacy.org/perspective/2013/paths-biosafety-and-biosecurity-sustainability>.

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*The complete issue will be posted in December 2013.

Paths to Biosafety and Biosecurity Sustainability: A Message from the MENA Region

*Anwar Nasim, Nisreen DaifAllah AL-Hmoud, Sabah AlMomin, Najat Rashid,
Khalid R. Temsamani, Kavita Berger, and David R. Fritz*

FOR the past decade, governments seeking biological security have trained personnel and secured pathogens and laboratories at home and abroad;

We Too Often Substitute *Regulation for Leadership*

Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science
Volume 9, Number 3, 2011 © Mary Ann Liebert, Inc.
DOI: 10.1089/bsp.2011.0052

COMMENTARY



***It's easier...
but does it make us safer
or more secure?***

BALANCING OUR APPROACH TO THE INSIDER THREAT

David R. Franz and James W. LeDuc

BIOTERRORISM WAS A CONCERN of some in government even before Al Qaida–manned planes took down the World Trade Center towers. The anthrax letters greatly heightened that concern and extended it to our citizens as well. The nation responded with billions of dollars: bio-defense research and development, medical countermea-

noted that the Department of Defense had the most stringent laboratory security regulations, recommended laboratory video cameras in labs rather than a 2-person rule (1 person to watch another scientist at work), encouraged tailoring the Personnel Reliability Programs (PRP) in biological labs to avoid having a negative impact on research,

Leaders influence culture...

Enlightened Leadership

Lead with Science

Quality Research
Emphasis on Safety
Vision
Education
Responsibility
Accountability
Honesty
Transparency
Ethics

A Culture of Trust

Regulatory Oversight

Lead with Security

Guns, Gates and Guards
Background Checks
Psychological Evaluation
Lists & Pathogen Control
A Culture of Mistrust?

Some labs will need some of
the right column, but every
lab can benefit from the left...

Which will make us safer and more productive?

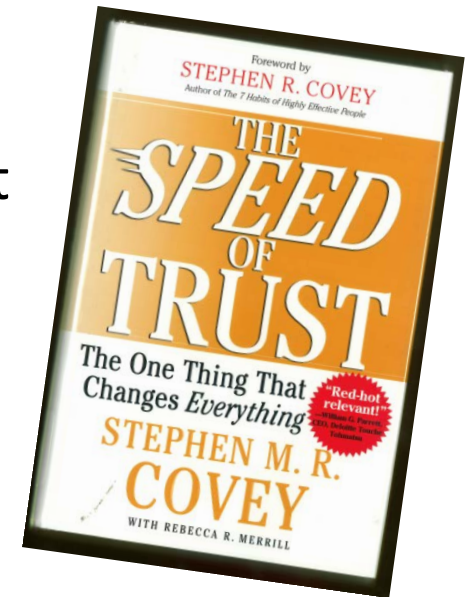
The *Value* of Trust

High Trust Organization

- Increased Value
- Accelerated Growth
- Enhanced Innovation
- Improved collaboration
- Stronger Partnering
- Better Execution
- Heightened Loyalty

Low Trust Organization

- Redundancy
- Bureaucracy
- Politics
- Disengagement
- Turnover
- Churn
- Fraud



1-Leadership can make this much difference!

2-Are we doing all we can to encourage this kind of leadership?

3-Are we doing all we can to develop and maintain high-trust organizations?

An example from industry

1987



The new CEO's briefing for shareholders...

“I want to talk to you about worker safety.”



Paul O'Neill

Shareholders wondered why he had omitted to talk about improving profits. Alcoa was in a mess!

“I'm not certain you heard me. If you want to understand how Alcoa is doing, you need to look at our workplace safety figures. If we bring injury rates down, it won't be because of cheerleading or nonsense you sometimes hear from other CEOs. **It will be because individuals at this company have agreed to become part of something important...** They've devoted themselves to creating a **habit of excellence.** **Safety will be an indicator that we're making progress in changing our habits across the entire institution.** That's how we should be judged.”

The company's market value increased from \$3 billion in 1986 to \$27.53 billion in 2000, while net income increased from \$200 million to \$1.484 billion.



The legacy of safety lives on


Safety Markets About Community Environment Sustainability News Invest Products Innovation Careers

Sustainability

Home
Achieving Our Vision
Improving Our Products
Protecting Our Resources
Enhancing Our Workplace
▶ Corporate Governance
▶ Our People
▶ **Safety**
▶ Health
▶ Supply Chain
Sustaining Our Communities
▶ Download the 2013 Alcoa Sustainability Highlights Report.
▶ Take our survey
▶ Site Map

Like 33 Tweet 4 +1 3

Zero Is Possible

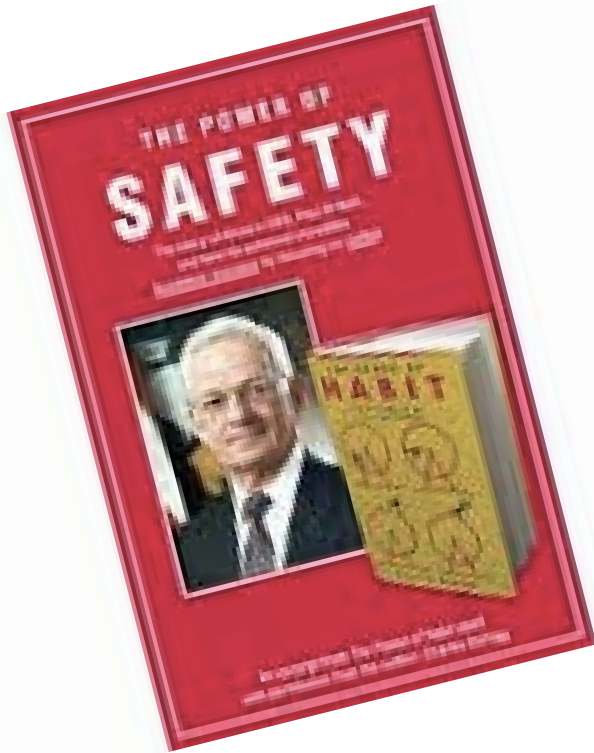
 Zero work-related injuries and illnesses have been long-standing goals for Alcoa. But when zero first became the target, it seemed unreachable. "Accidents are inevitable" was often the response.

They're not. We can attain zero. It is possible, and, in many locations, it is already here thanks to dedicated effort and a firm commitment to our core values, one of which is to work safely, promote wellness, and protect the environment.

As of Saturday, November 15, 2014, 10:00 Greenwich Mean Time (GMT), Alcoa's lost workday (days away) rate for 2014 stands at **0.097**, and the 2014 DART (days away plus restricted and job transfer) rate stands at **0.317**. Alcoa calculates and publishes these rates in real time. Each represents the number of injuries and illnesses cases per 100 full-time workers.

In the 12-month period ending **October 31, 2014:**

33.0% of Alcoa's 185 locations worldwide had zero recordable injuries; 49.2% had zero days away, restricted, or	99.6% of our employees had zero days away, restricted, and transfer incidents.	99.9% of our employees had zero lost workdays.
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The Power of Safety

O'Neill found something everyone could agree on—worker safety—and harnessed that as a basis for change.

at all levels of an organization

Leaders^v influence culture...

Enlightened Leadership

Regulatory Oversight

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Accountability
Honesty
Transparency
Ethics

A healthy culture is:

- **safer**,
- **more secure**
- **AND more productive**

Some labs will need some of the right column, but every lab can benefit from the left...

A Culture of Trust

Which will make us safer and more productive?

The World Needs Us...to be Productive.



INTERNATIONAL

Ebola deaths surpass 10,000 in Africa



Each of us can make a difference...

**Laboratory Safety
Leadership Summit**

AMERICAN SOCIETY FOR MICROBIOLOGY
INTERNATIONAL SOCIETY FOR BIOLOGICAL AND ENVIRONMENTAL ENGINEERS
AA*
ERG
APHL ASSOCIATION OF PUBLIC HEALTH LABORATORIES

CRDFGLOBAL
INSPIRED BY PEOPLE | DRIVEN BY SCIENCE

BEHAVIORAL-BASED IMPROVEMENT SOLUTIONS
EMPOWERING INDIVIDUALS - ONE STEP AT A TIME

**Leadership in the Face of
Emerging Infectious Diseases**

February 3 - 5, 2016
Atlanta, Georgia - The Georgian Club



www.labsafetyleader.com