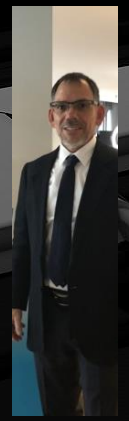
JACQUES FRANCOEUR

SILICON VALLEY SECURITY INDUSTRY THOUGHT LEADER: 20+ YOE



Jacques Francoeur

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https://www.linkedin.com/in/**innoonewetrust**/

MBA: Concordia University

M.A.Sc: University of Toronto
Institute for Aerospace Studies

B.A.Sc.: University of Toronto,
Engineering Science,
Aerospace Engineering

US Delegate 2018/19, ITU Study Group 17: Security

- US Contribution: **Unified Security Model**
- Q14: DLT Security, **Expression** integration into DLT Threats
- Former **Vice Chair**, ITU FG: Cryptocurrencies including **Digital Fiat Currency**, co-chair Security Working Group, Deliverable: **Protection Assurance of Digital Currencies**

- **Founder & CEO**, Spheric Security Solutions
  Technology | Lab | Academy
- **Faculty Cyber Executive-in-Residence**
  San Jose State University

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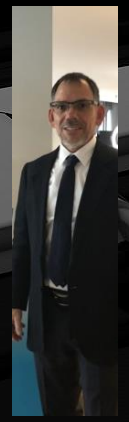

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Speaking as:

Jacques Francoeur,

Citizen of the world

30+ YOE in High Technology

20+ YOE Silicon Valley Expert

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CyberSwiss & The Privacy Gateway
Founder, 1997/98

University of Toronto
B.A.Sc. & M.A.Sc.
Aerospace Engineering

Canadian Space Agency
Scientist, Program Manager

Montreal

San Jose State University
Cyber Executive-in-Residence

TekTran Consulting
Founder

Security Genome Project.Org

To Silicon Valley
1999

KPMG: National Data Privacy Lead (pre EU Data Privacy Directive)

SAIC: Sr. Director: Identify & Information Assurance

E&Y:
Advisory:
IT Risk & Assurance COE

SG17 Security

Bay Area CSO Council:
Co-Founder & ED

Spheric Security Solutions:
CEO & Founder

TrustEra

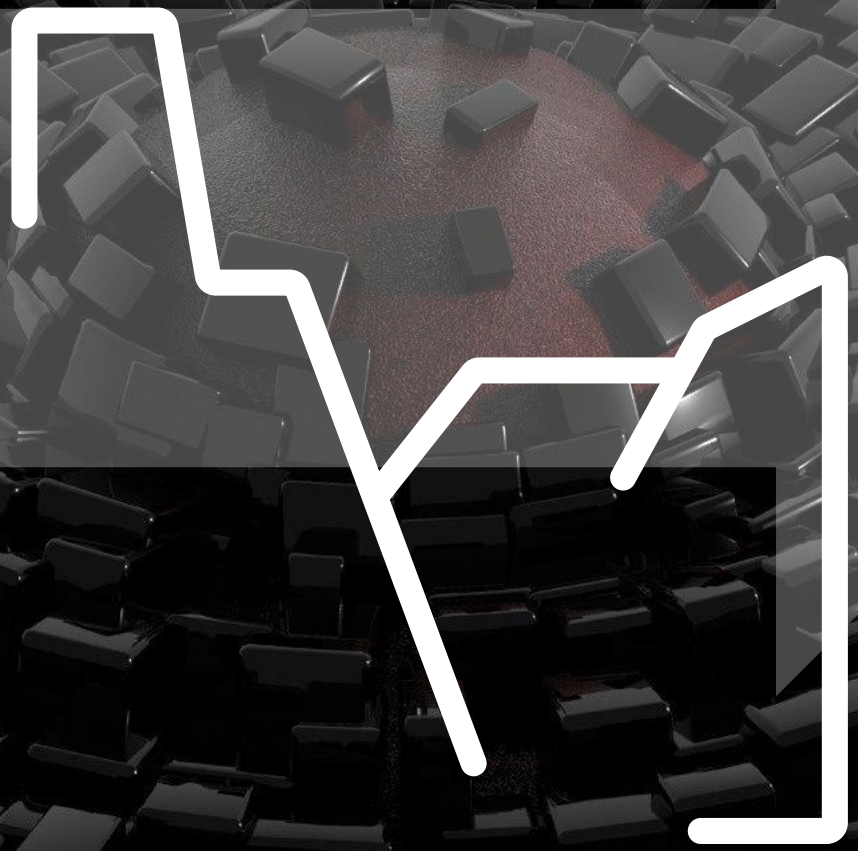
NetFront Certificate Authority
Director: Digital Trust

Adobe:
Information Assurance

ProofSpace
Digital Evidence Preservation
Chief Evangelist

The Failure of Security to Protect

*Protection for the **Rich***



Security Inclusion Now!

*Protection for **All***

Protection for the Rich

New Equifax CEO (post Breach)
states in congressional hearing* March 19, 2019

-

investing + $1,250,000,000 over 3 years,
hiring + 1000 experts

How much protection?

Hearing on "Examine Private Sector Data Breaches," March 19, 2019
https://www.youtube.com/watch?v=2u68rVGDSg4

Protection for All
Emerging World
“To Connect or not to Connect”
to Developed World”
- while maintaining protection
Drastic capital inequalities
- inability to invest in “enough” security

Protection for All

Everything going

"**To Connect** or not **to Connect**"

to Everything?"

- while **maintaining** protection

Drastic **skill's access** inequalities

inability-to-deliver **"quality"** of security

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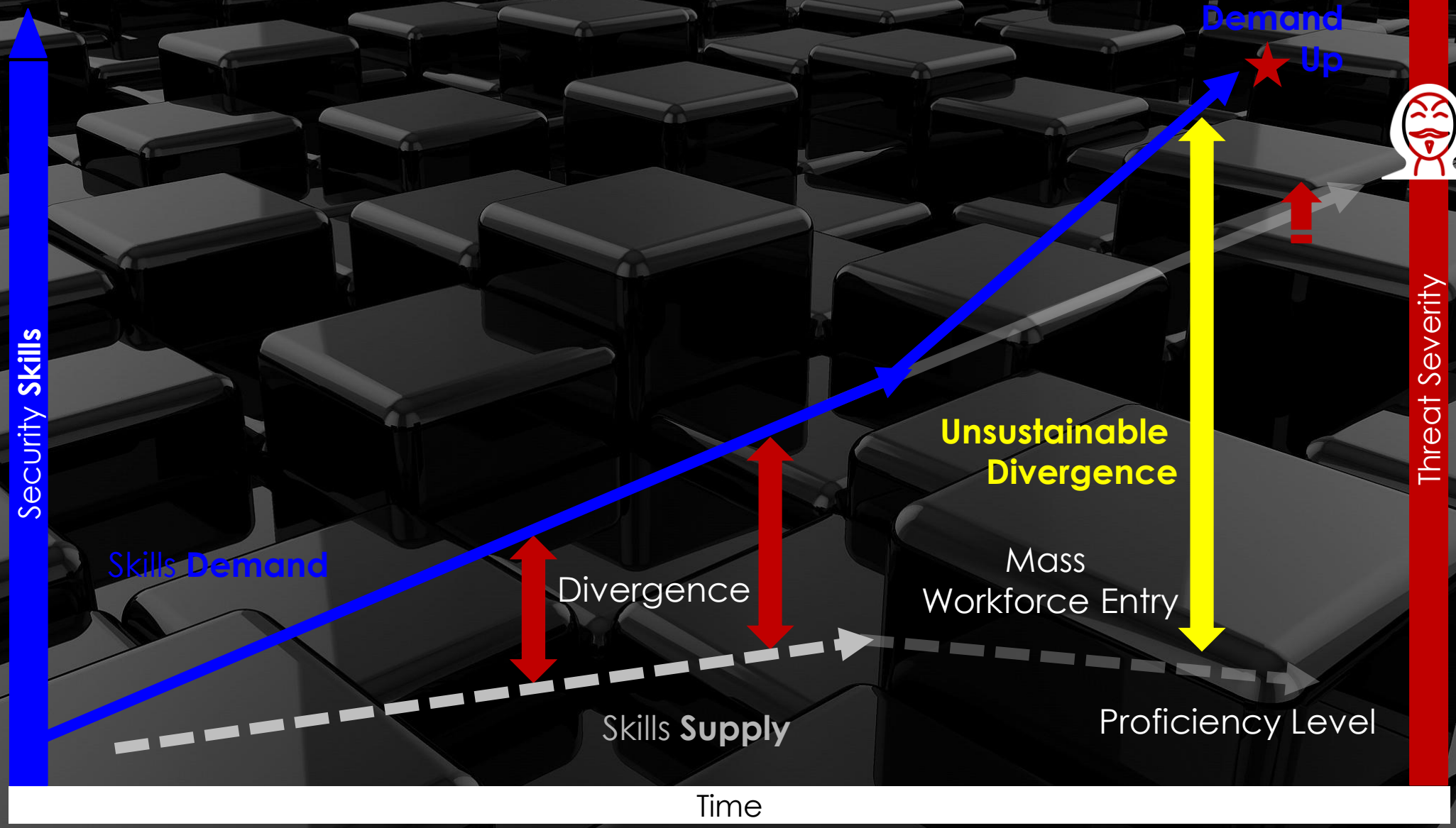
DIVERGING SECURITY SUPPLY & DEMAND



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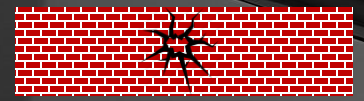
The Failure of Security to Protect

Security **Funding**

Protection ~ **Amount** of Security

& **Quality** of Security

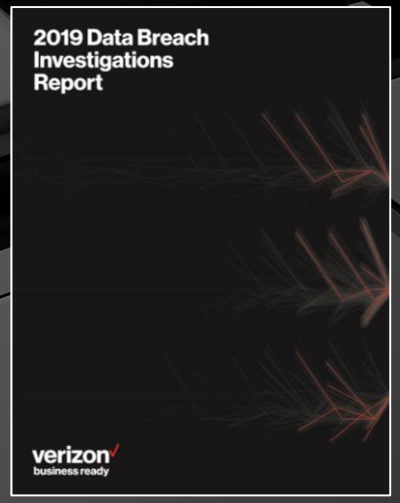


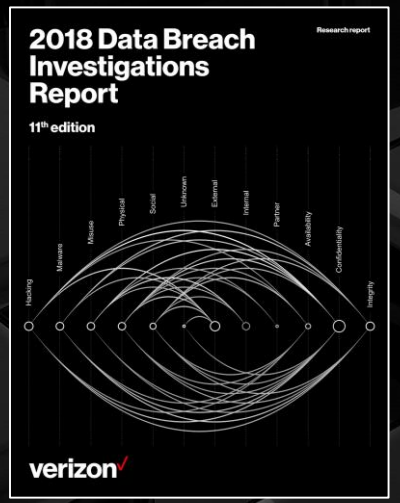
Security **Skills**

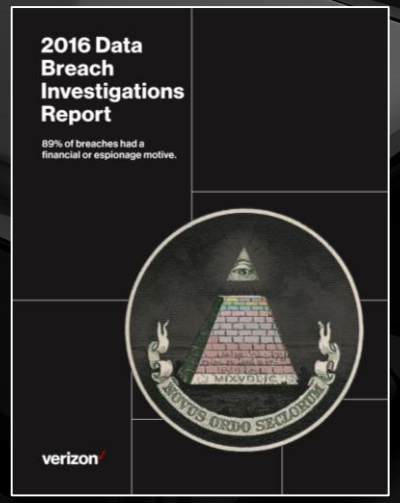
New Equifax CEO (post Breach)
states in congressional hearing*
- investing +**$1,250,000,000** over 3 years,
hiring **1000+** experts

Security **Funding**

Protection ~ **Amount** of Security



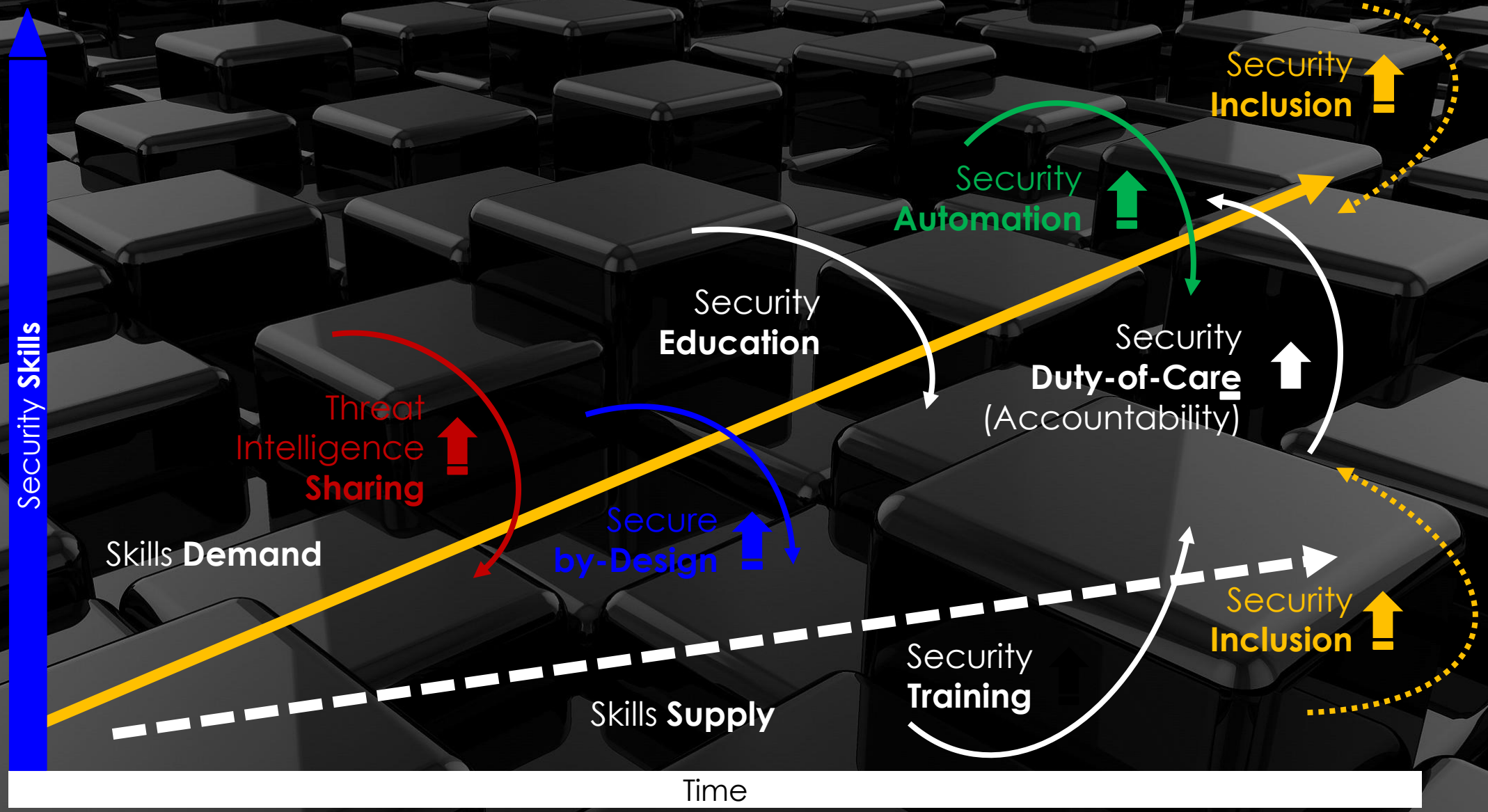




* https://www.hsgac.senate.gov/templates/watch.cfm?id=ED7AA8F1-5056-A066-6067-80CD2EC5A6C3

Security
Inclusion
Now!
One Protection for All

BENDING THE CURVE



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BARRIERS-TO-SECURITY ADOPTION

Ambiguous, subjective, interpretation

Language

Lost in translation

Adding to complexity & cost, every day

Poor management

Skills

Basic practitioner levels, spreadsheets

Objective -to- Actual control disconnect

Complexity

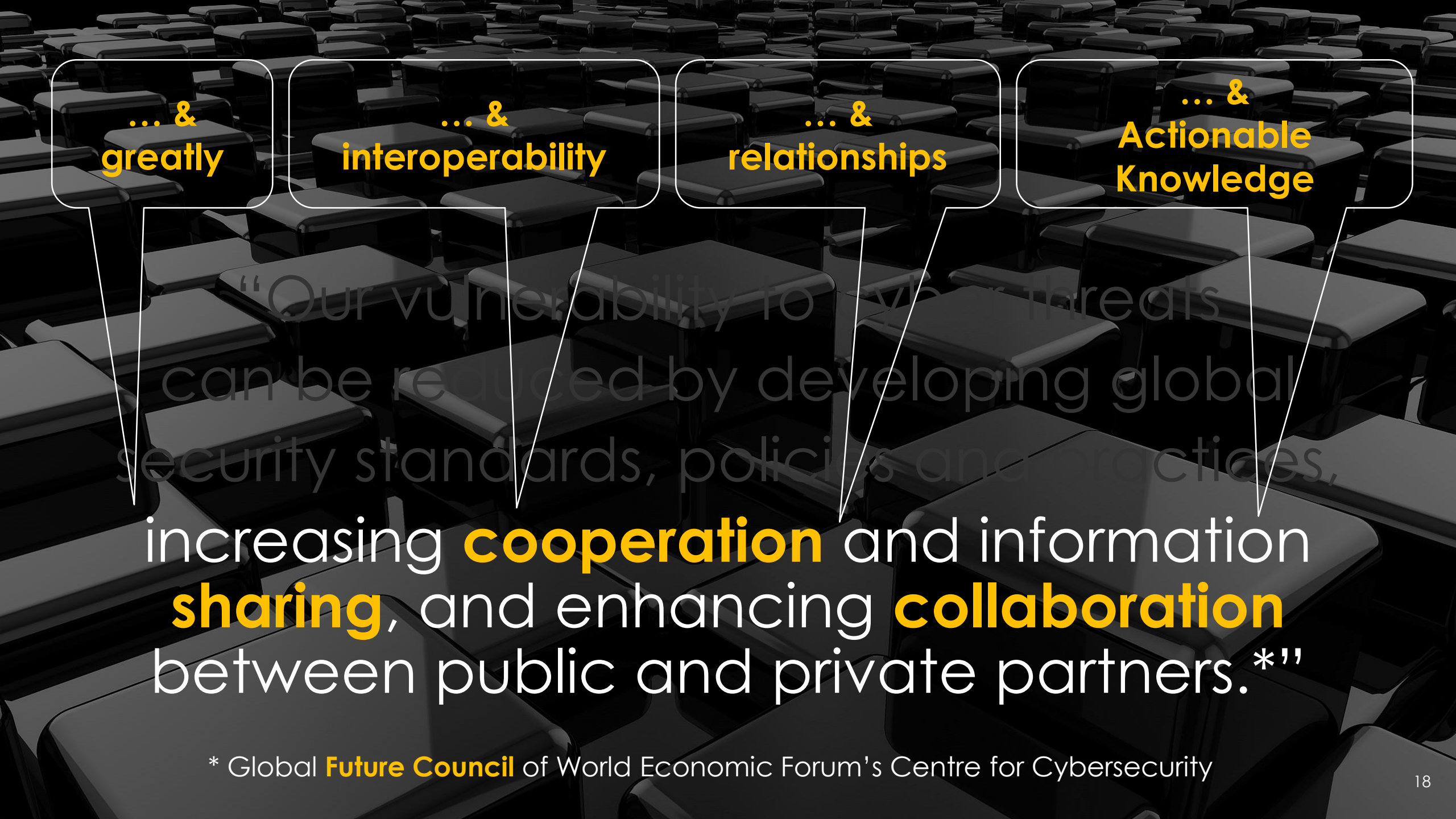
Actual -to- Objective control disconnect

Many complex security Control frameworks

Cost

Many complex security technologies

* Global **Future Council** of World Economic Forum's Centre for Cybersecurity



* Global **Future Council** of World Economic Forum's Centre for Cybersecurity

Security Inclusion Now!

One** Protection for **All

Protection ~ **Quality** of Security

Fundamental Challenges

- Visibility
- Measurability
- Precision
- Normalization

REDUCING BARRIERS-TO-SECURITY ADOPTION

Unique & unambiguous

Syntax

Interrelated, networked

Best Practice knowledge
Emended in Syntax

Knowledge

Actual Trusted Objects

Precision on demand,
with full inheritance

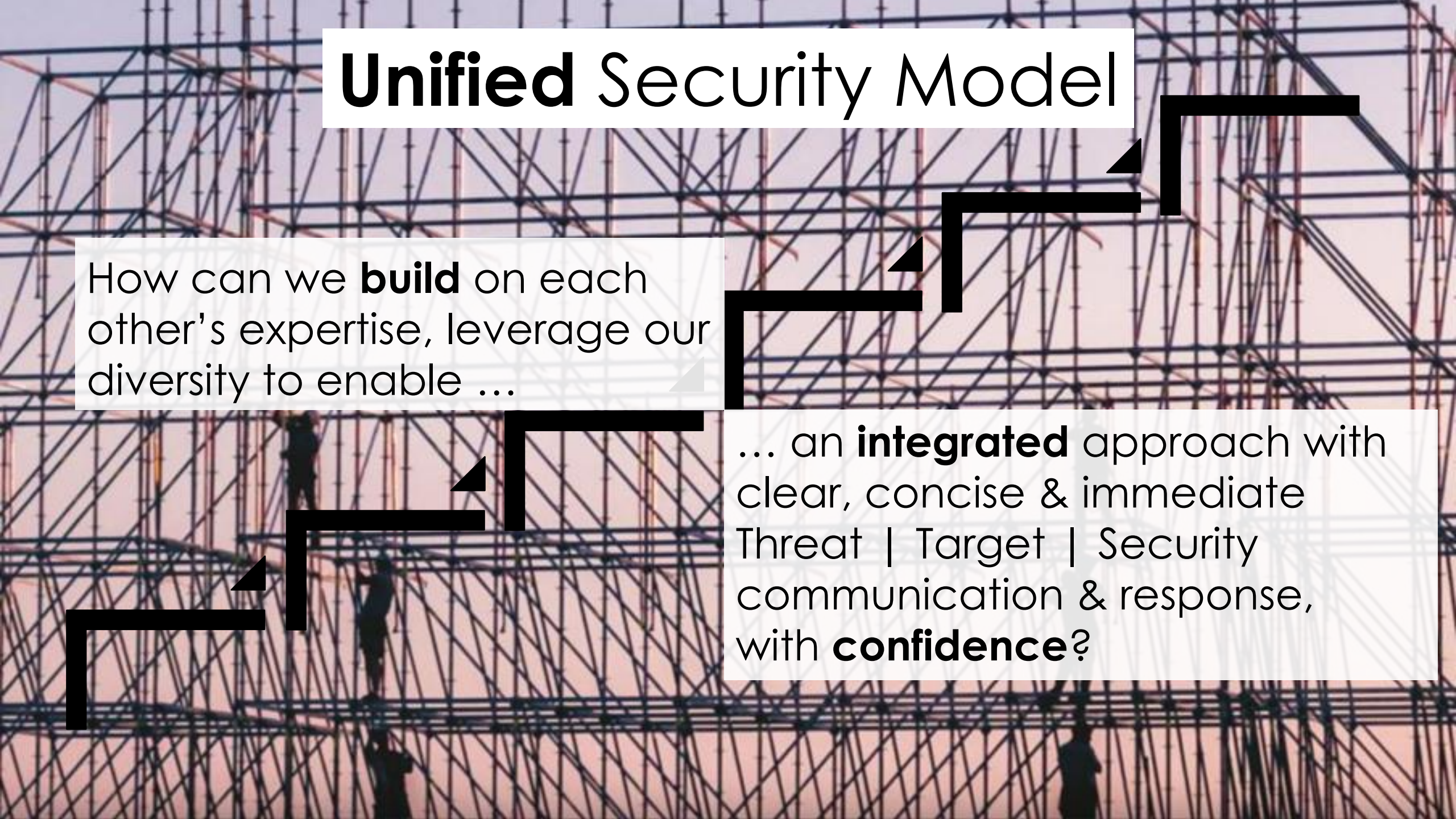
Clarity

Perspective on demand,
with full aggregation

Inter-Control framework
Projection

Interoperable

Deliver meets Fulfill -
automatically



Unified Security Model

How can we **build** on each other's expertise, leverage our diversity to enable …

… an **integrated** approach with clear, concise & immediate Threat | Target | Security communication & response, with **confidence**?

Unified Security Model (USM)

Inter-model **different** Level

Inter-model **same** Level

Intra-model

A: Residual Exposure

Residual | Value | Protection

B_1: Risk Acceptance

Residual

–

Inherent

–

Current

Current | Future

Fund it

–

Manage it

–

Do it

Fiduciary

–

Management

–

Operations

B_2: Current Attack Response Capability

Before | During | After

Private

Public

Attack | Compromise | Breach

C_1: Control Objective Frameworks

Level 1

-

Level 2

-

Level n

C_2: Control Transformation

External

-

Internal

Objective

-

Actual

C_3: Control Objective Projection

Destination

-

Source

D_1: Expression Parameters

Root

-

Parent

-

Child

Class

-

Actual

D_2: Expression Backbone

11001
01011
1000

Software | Data | Hardware

D_3: Assurance Expression Model

Threat

-

Target

-

Security

Exploit | Vulnerability | Countermeasure

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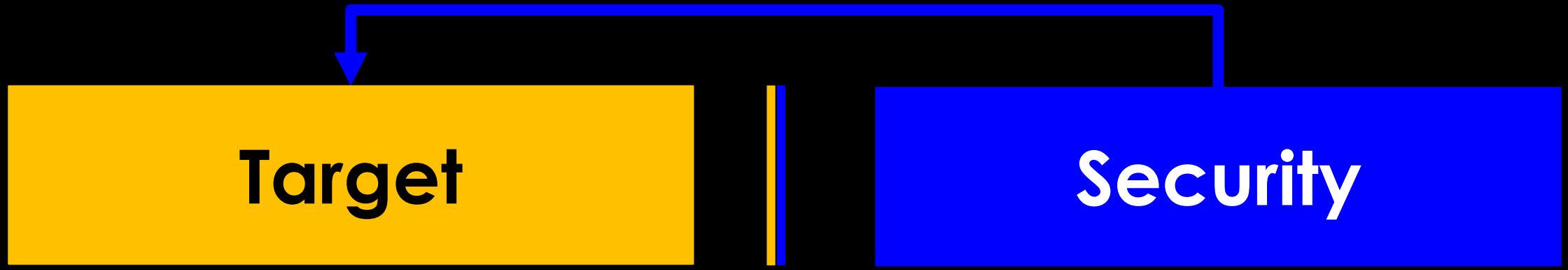
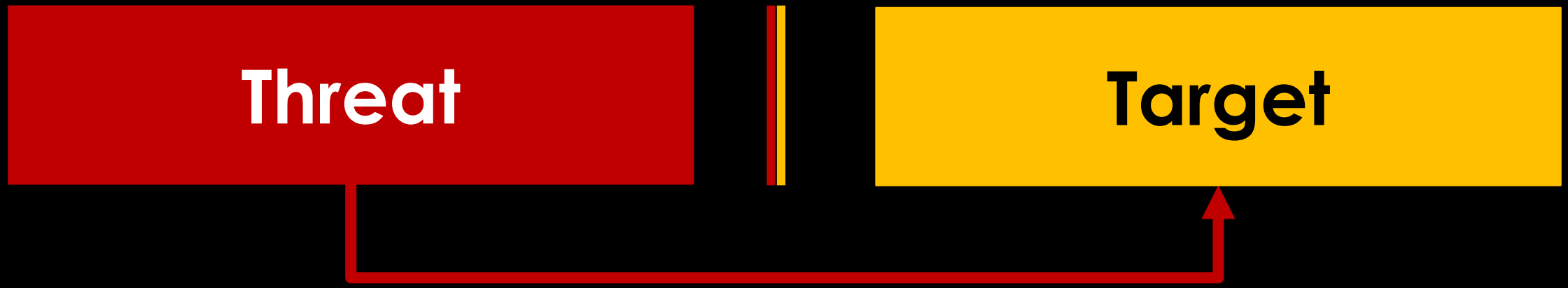
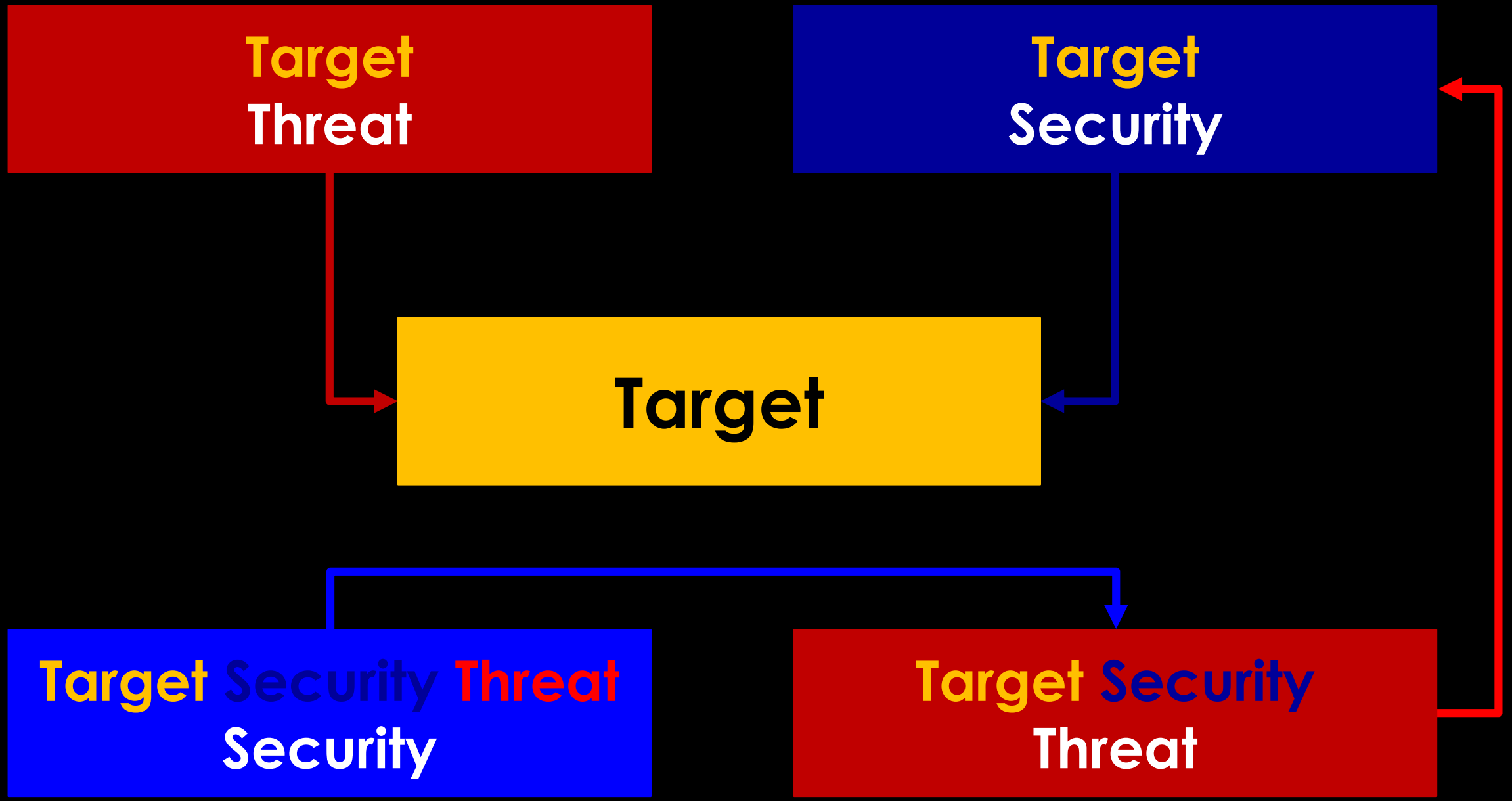
Security to Target Expression

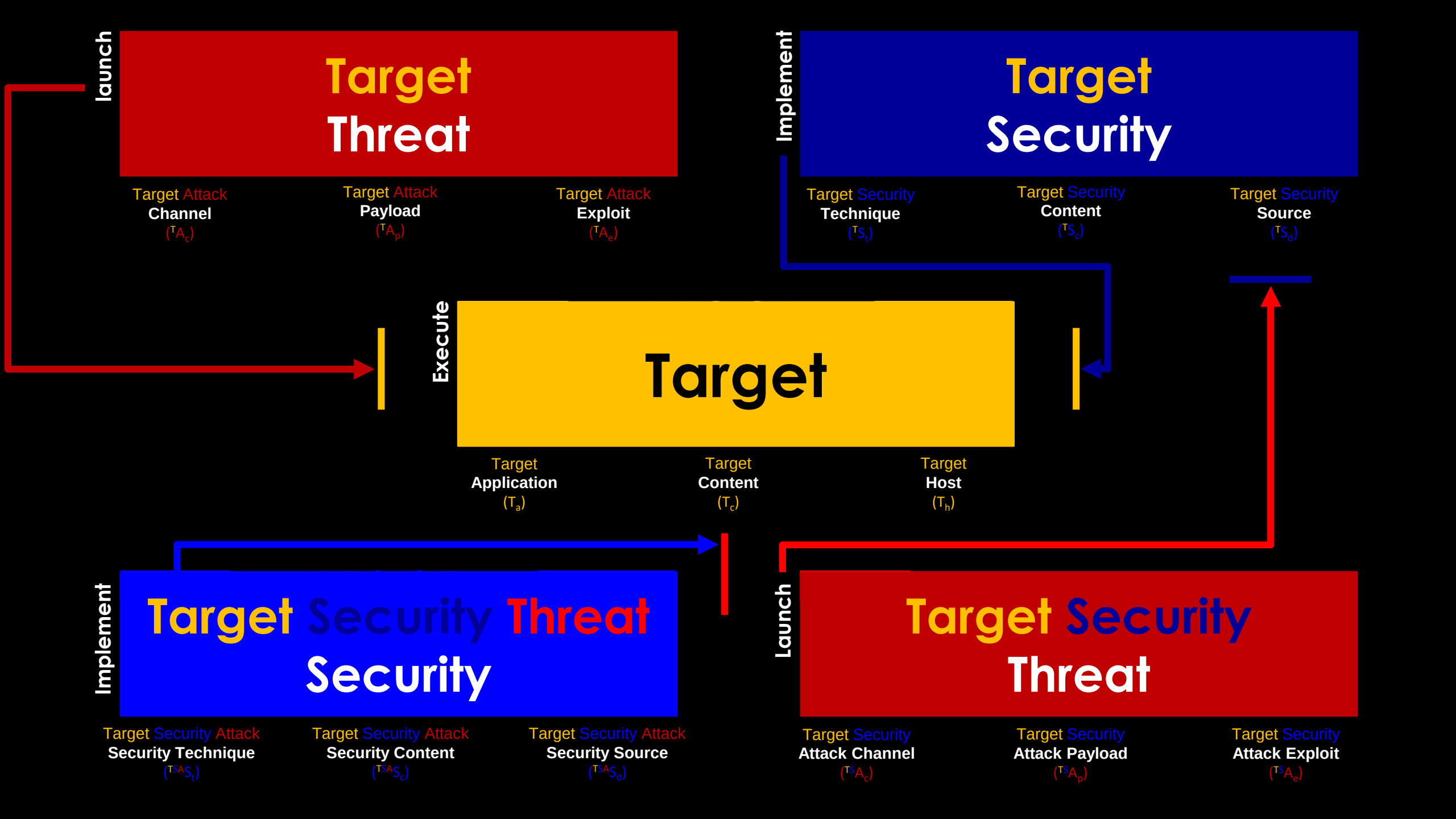


Threat to Target Expression





Protection Assurance Expression Model


launch
Target
Threat
Target Attack
Channel
($^{T}A_c$)
Target Attack
Payload
($^{T}A_p$)
Target Attack
Exploit
($^{T}A_e$)
Implement
Target
Security
Target Security
Technique
($^{T}S_t$)
Target Security
Content
($^{T}S_c$)
Target Security
Source
($^{T}S_d$)
Execute
Target
Target
Application
(T_a)
Target
Content
(T_c)
Target
Host
(T_h)
Implement
Target Security Threat
Security
Target Security Attack
Security Technique
($^{TS}A_{St}$)
Target Security Attack
Security Content
($^{TS}A_{Sc}$)
Target Security Attack
Security Source
($^{TS}A_{Sd}$)
Launch
Target Security
Threat
Target Security
Attack Channel
($^{TS}A_c$)
Target Security
Attack Payload
($^{TS}A_p$)
Target Security
Attack Exploit
($^{TS}A_e$)

In an **interconnected** world
… protection for the **rich**
cannot exist if
Without **all** being protected

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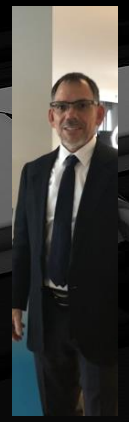

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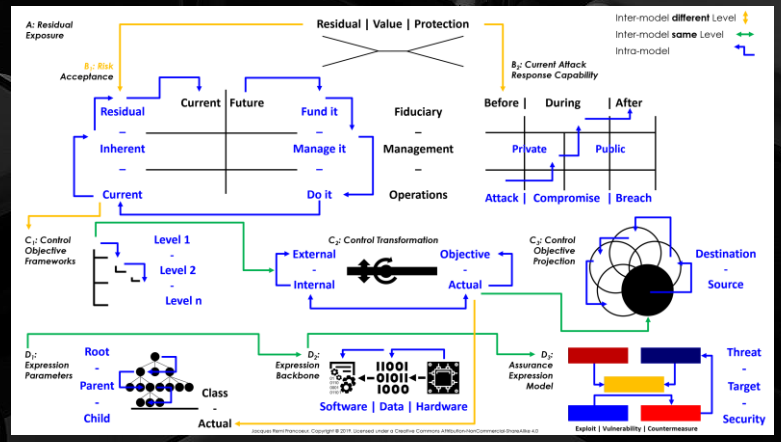

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