

Providing Business Continuity through Cyber Situational Awareness

Invited Guest Lecture
Cardiff Met University, UK, November 16, 2022

Dr. Cyril Onwubiko

Senior Director, Enterprise Security Architecture, Pearson



[DrCyrilOnwubiko](#)



[cmricorg](#)



c-mric.org



Definitions

Cyber Situational Awareness & Business Continuity?

CyberSA provides a complete picture of CyberOps, allowing a company to identify and detect events or incidents before they happen, helping the company to remedy the situation, and also to predict future occurrences of a similar or different incident.

Business Continuity is the ability of a company to continue working after a disaster or an incident e.g., fire, storm, computer failure, or other event that might interrupt business[1].

[1] Cambridge Dictionary - <https://dictionary.cambridge.org/dictionary/english/business-continuity>

Motivation

How can Cyber Situational Awareness help a company to achieve Business Continuity?

Helps identify problems

Helps identify & detect disruptions & incidents

Helps identify vulnerabilities & threats

Helps identify gaps e.g., in processes, workflows and controls

Helps resolve the problems, issues and disruption

Helps fix or resolve the problems, issues and disruption

Helps remedy gaps and controls

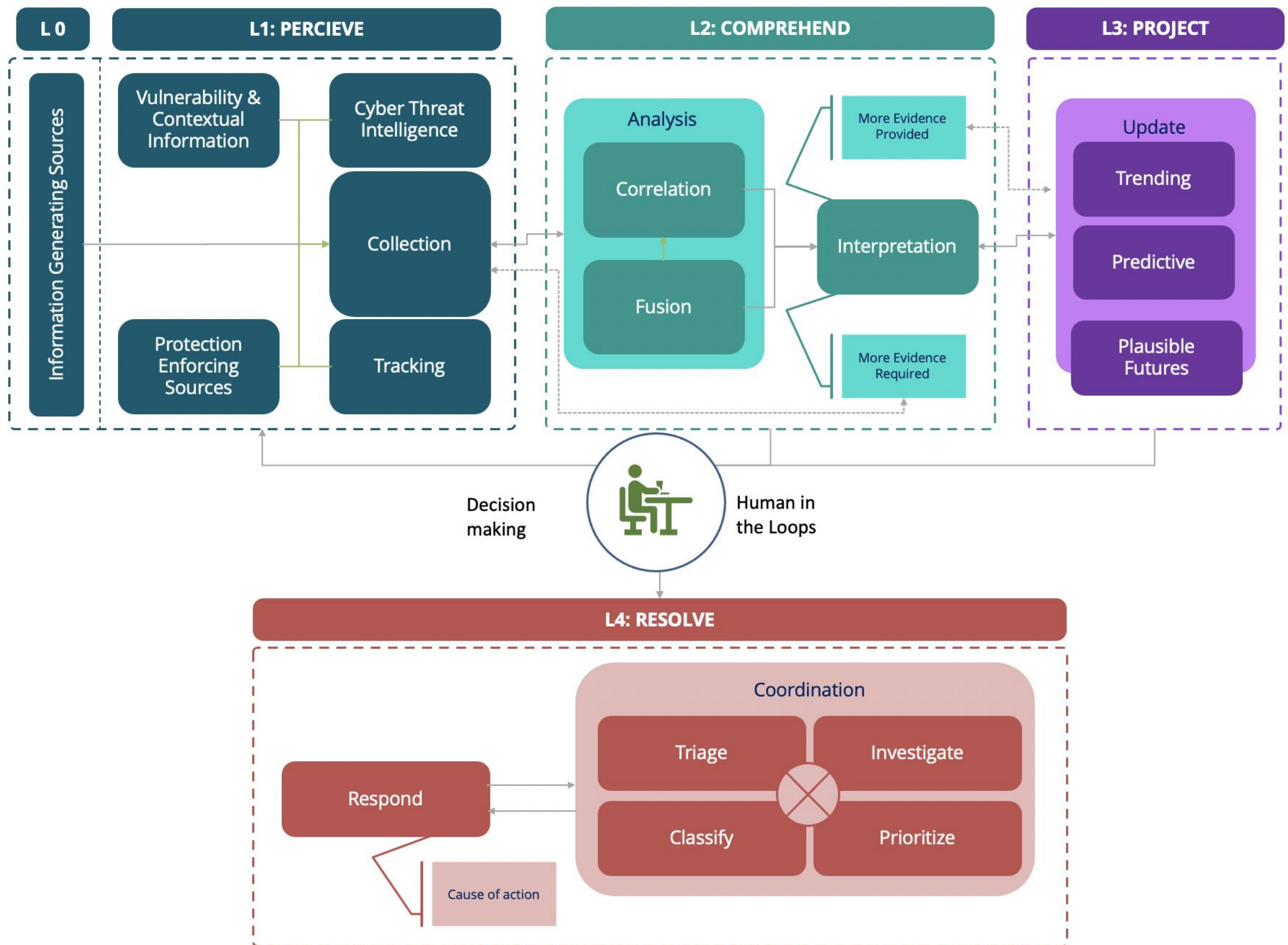
Helps make predictions of futures issues, and hence helps the company to be on top of things before they happen

Purpose



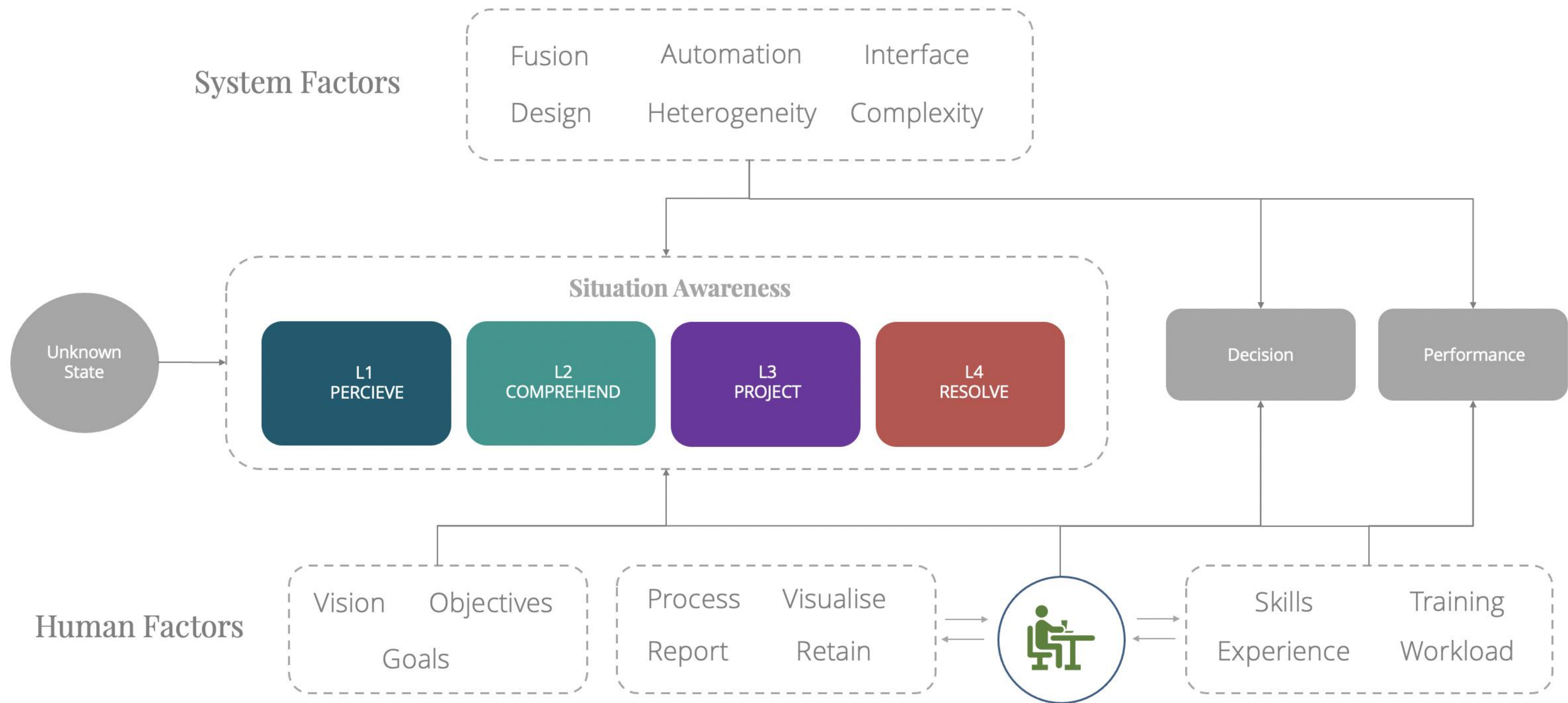
- Discuss CyberSA Functional Model
- Understand key features of CyberSA
- Explain CyberSA Process Model
- Discuss how Business Continuity is achieved through CyberSA

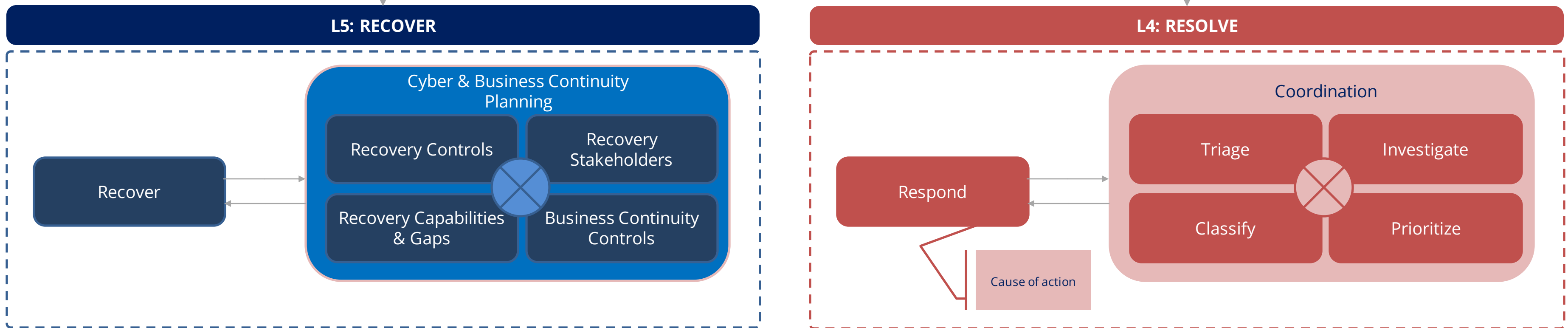
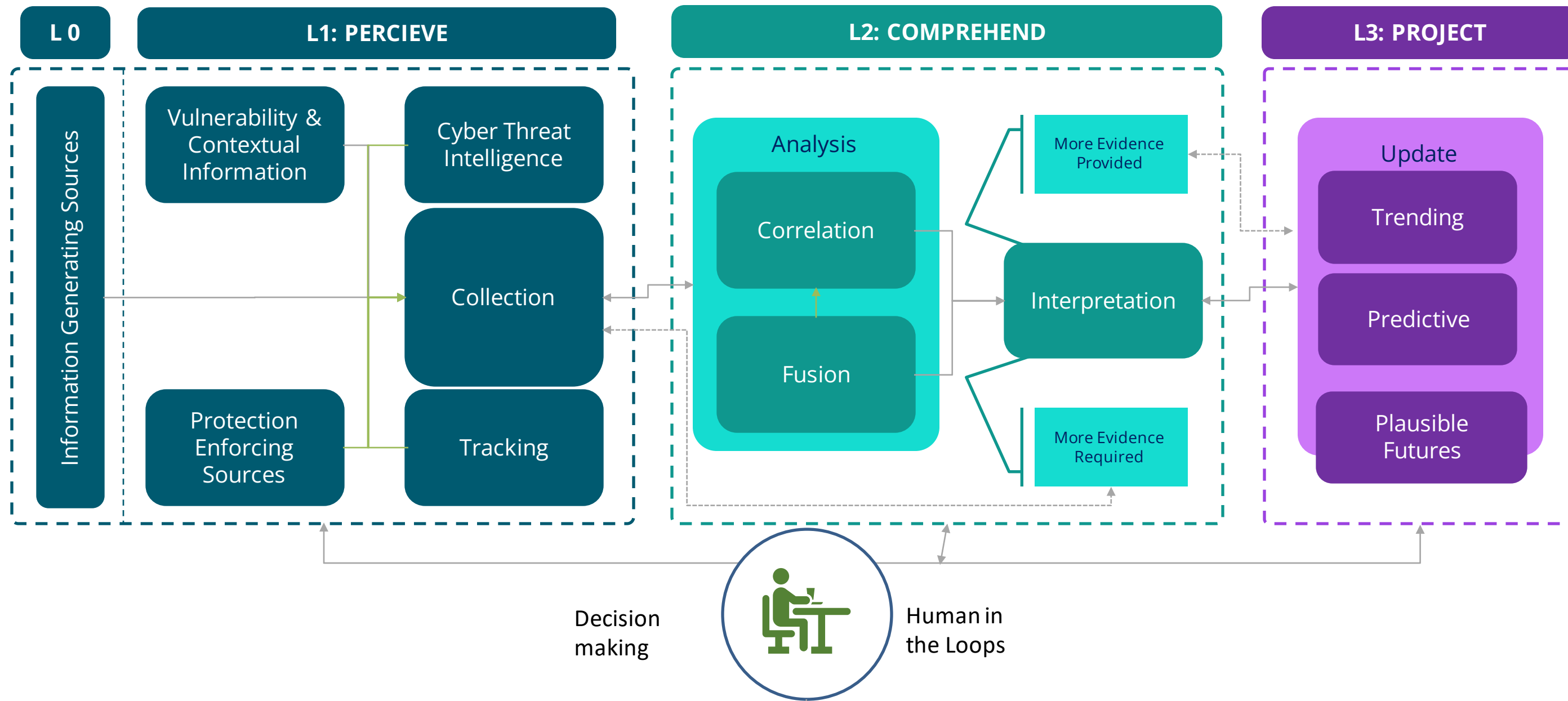
CyberSA Functional Model



- 4 Levels
- 17 Components / Capabilities
- Human in the Loop

CyberSA Process Workflow





Business Continuity through CyberSA

- Identifies Recovery Controls.
- Identifies Recovery Stakeholders.
- Links Business Continuity and Recovery Controls.
- Ensures Business Continuity & Recovery Objectives are met.
- Establishes Recovery Capability and Gaps.



Summary



- Business Continuity is an essential business capability.
- CyberSA can help achieve Business Continuity by ensuring CyberOps is fit for purpose and achieves business objectives.
- CyberSA, as a human factor, ensures both technical and human aspects are met in delivering Business Continuity through human in the loop functions.

References

- C. Onwubiko (2021): **“CyberOps: Situational Awareness in Cybersecurity Operations”**. *International Journal on Cyber Situational Awareness*, Vol. 5, No. 1, pp82-107. [[Download](#)]
- C. Onwubiko (2016): **“Understanding Cyber Situation Awareness”**, *International Journal on Cyber Situational Awareness (IJCSA)*, ISSN: 2057-2182, DOI: 10.2216/IJCSA. 2016. [[Download](#)]
- **Cyber Recovery Operational Framework™** - <https://cyberframework.c-mric.com/>



Cyber Science 2023

<https://c-mric.org>

3-4 July 2023
Copenhagen
University of Aalborg
Denmark

Call for Papers is Open

Cyber Science 2023

3-4 July 2023

Copenhagen, University of Aalborg

A. C. Meyers Vænge 15, 2450 København, Denmark

**Theme: Multidisciplinary & Multidimensional
Cybersecurity**

Paper submission is Open

Starting in:

230
d

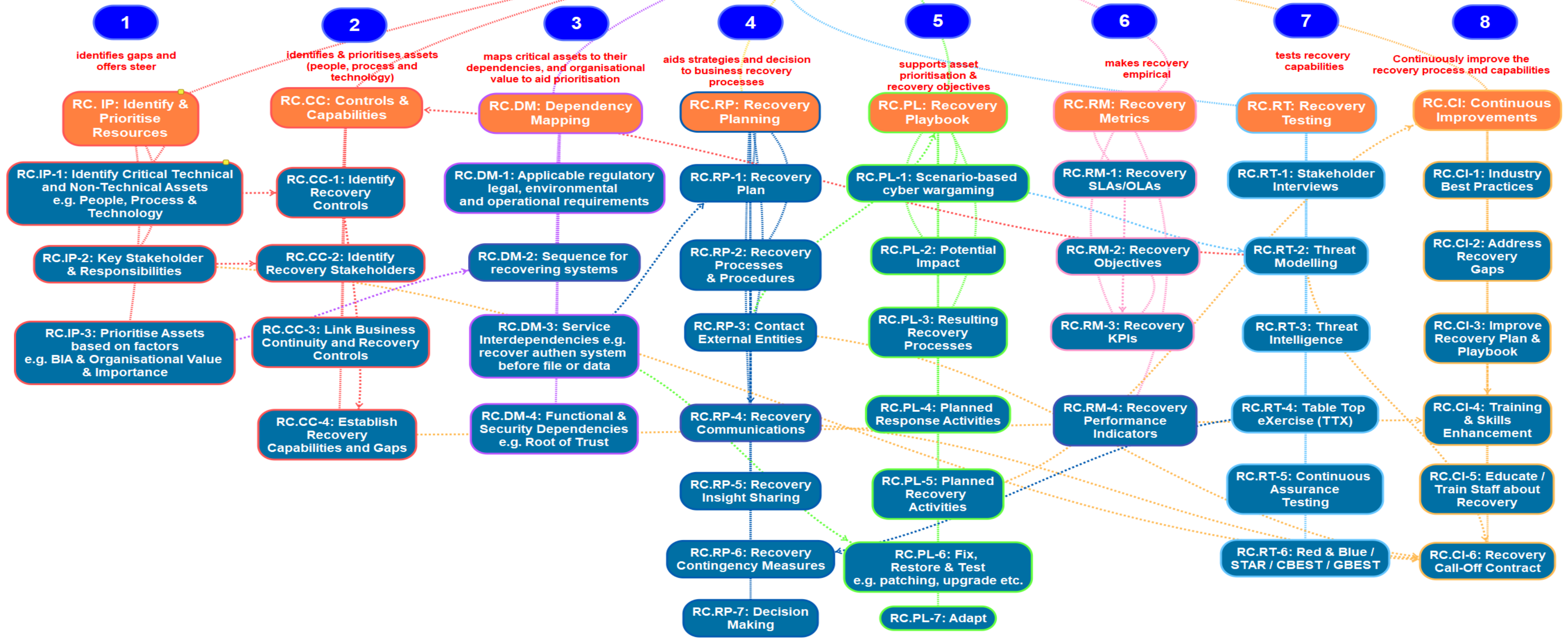
20
h

51
m

00
s

c-mric.org

Cyber Recovery Operational Framework



Q&A

Thank –You!

Follow me on Twitter

<https://twitter.com/DrCyrilOnwubiko>