Building a people-led security culture

Joshua Qwek

CISO Perth 2023

Building a people-led security culture

- Manufacturing
- Education
- Finance & Banking
- Health Insurance
- Advisory Services

Joshua Qwek
Cybersecurity Architect

Building a people-led security culture

Agenda

1. The Golden Age of Cyber Awareness
2. The Never-ending Quest
3. From Awareness to Culturalisation
4. The Measure of ~~Success~~ Progress

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The Golden Age of Cyber Awareness

> **Awareness awakes,**
> **Culturalization blooms,**
> **Diversity thrives.**

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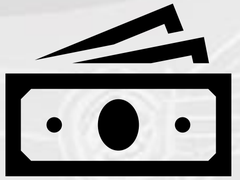
The Golden Age of Cyber Awareness

Overworked

Understaffed



Over Budget

Underutilize

Still conducting awareness session & regular phishing simulation testing.

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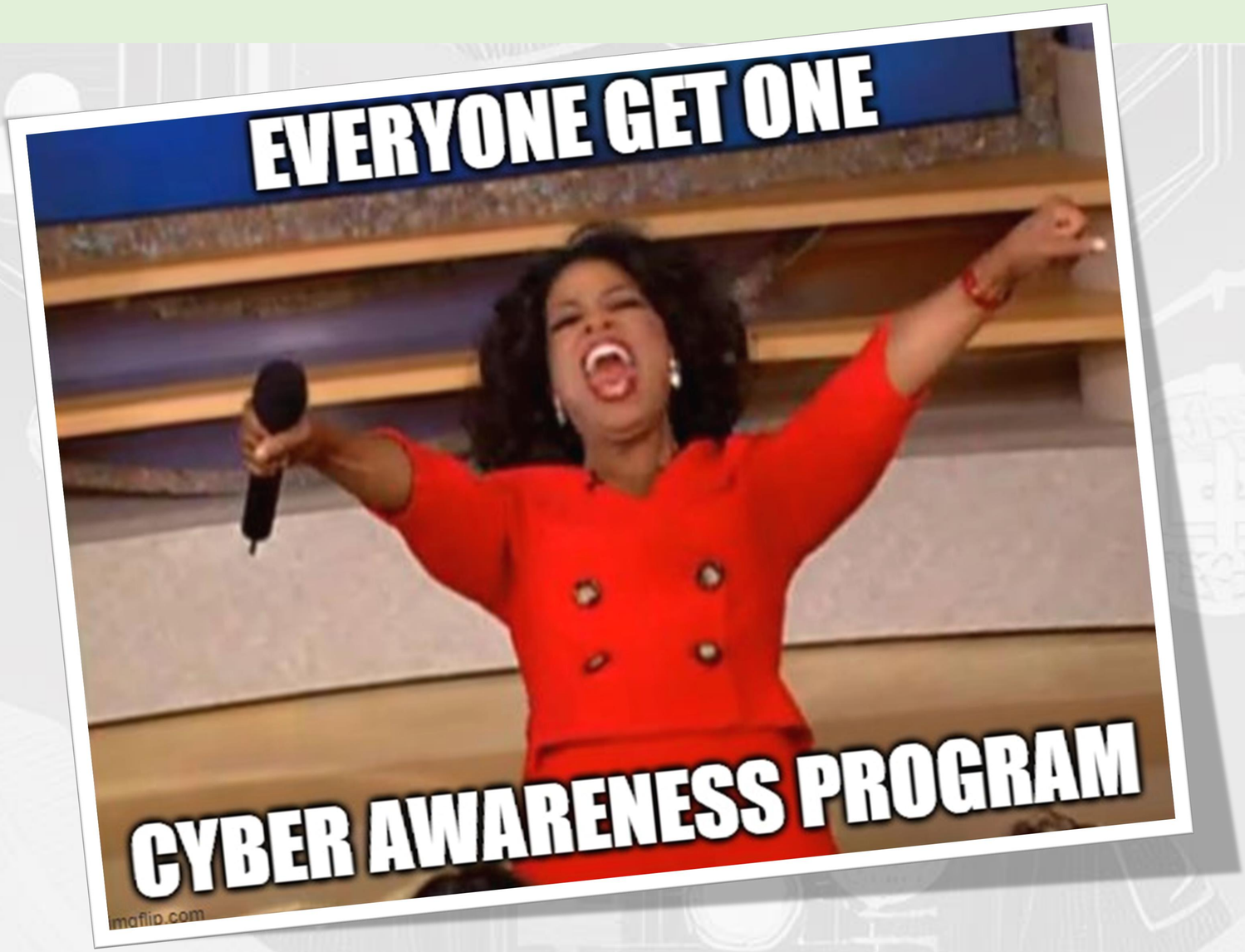
The Golden Age of Cyber Awareness



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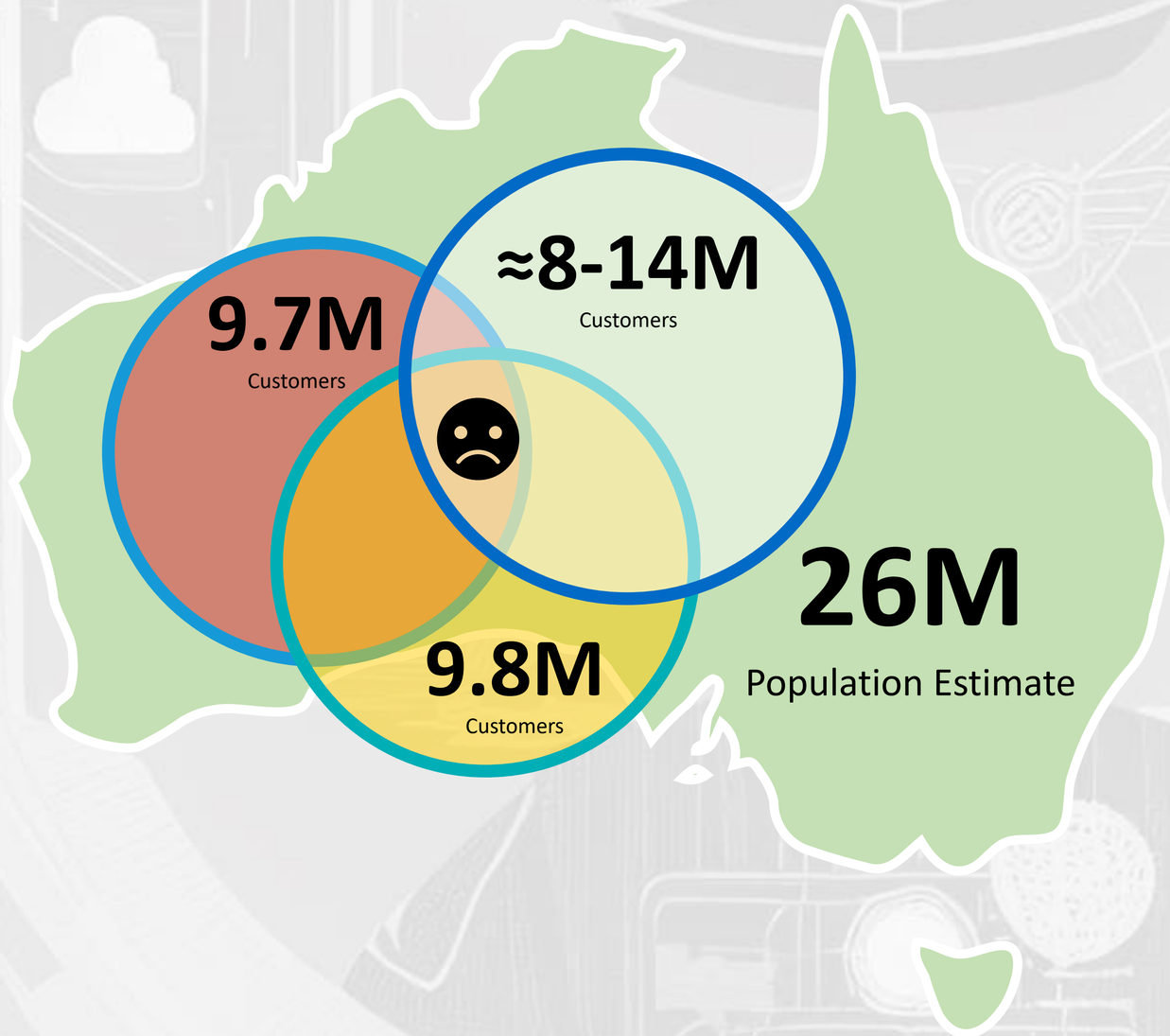
The Golden Age of Cyber Awareness



"Never let a good crisis go to waste."

Sir Winston Churchill

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The Golden Age of Cyber Awareness

Enisa's AR-In-A-Box		
Cyberbullying	Financial Scams	Malware
Online Gaming	Mobile Banking	Phishing
Online Pornography	Device Safety	Ransomware
Safe Internet	Email Spam	Cyber Upskilling
Sexting	Business Email Compromise Fraud	Cyber Terrorism
Fake News	Password Attacks	Certifications
Privacy & Data Protection	Data Breach	

enisa
EUROPEAN UNION AGENCY FOR CYBERSECURITY

enisa.europa.eu

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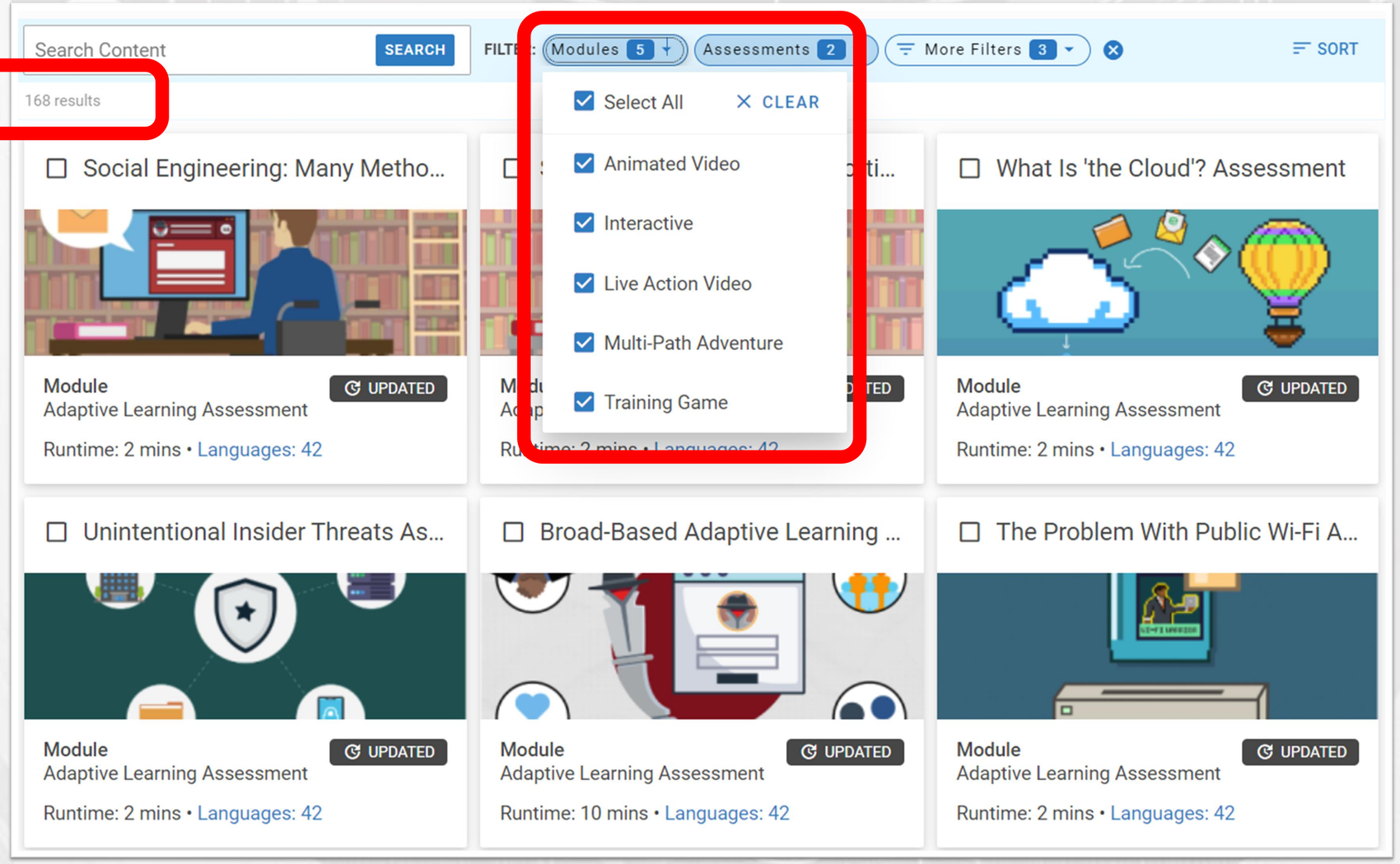
The Golden Age of Cyber Awareness



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The Never-Ending Quest

> **With each step we take,**
> **The measure of success grows,**
> **Progress sets the pace.**

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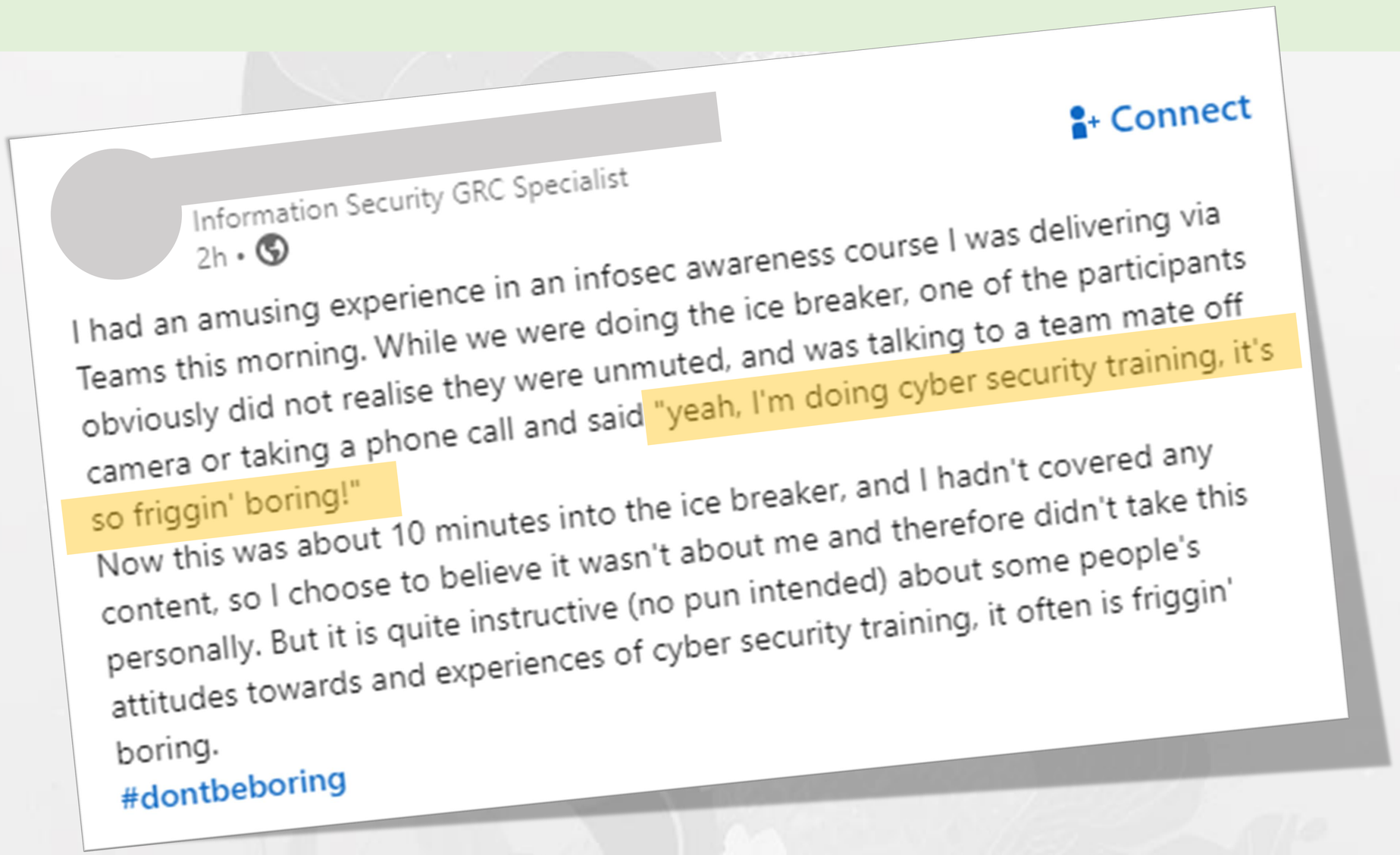
The Never-Ending Quest



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The Never-Ending Quest

Hi,

Please see my snippet of the amount of phishing emails I'm getting. I feel I've been well tested for the month of February, and I'd rather pack up my phishing gear and go down the pub and talk about the one that got away 😉

Is there a possibility I can have no more phishing? Three big phish in one day is too much for me to handle, I even caught two at the same time (8.35). My bad days phishing is spoiling my good days work.

Also, none are going to get away when I know they're coming I'm a seasoned phisherman.

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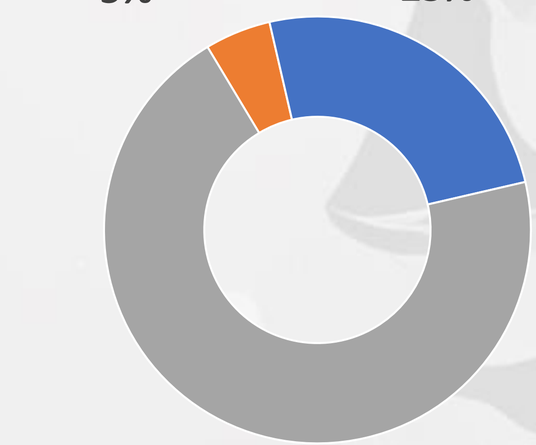
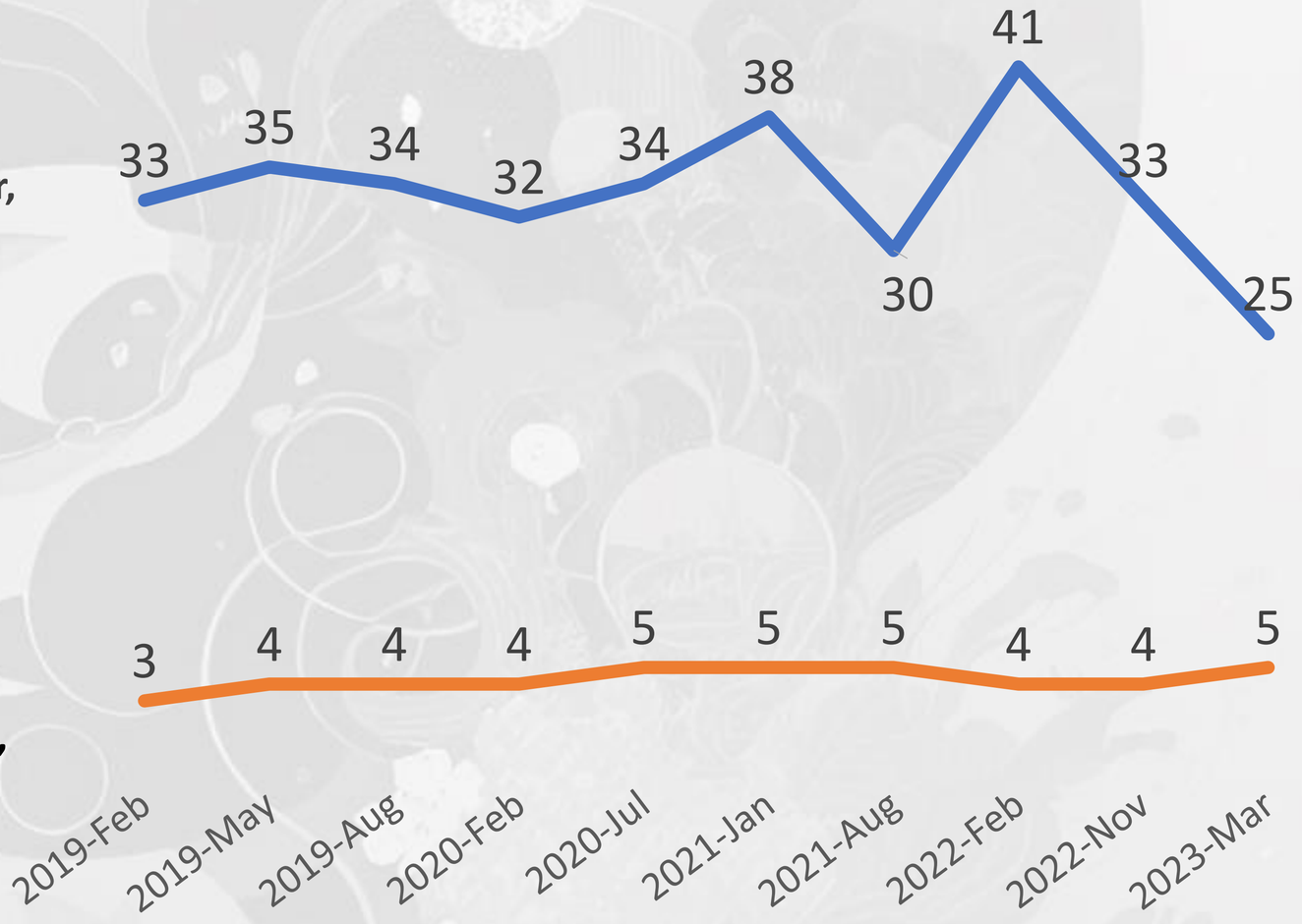
The Never-Ending Quest





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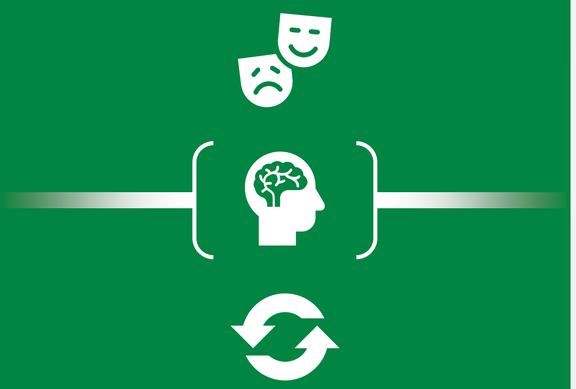

The Never-Ending Quest

“Am I showing the right screen?”

“You are on mute!”

“Sorry… I pocket dialed”

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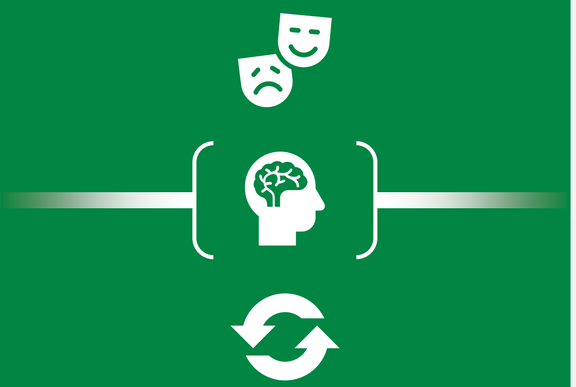
The Never-Ending Quest



[2022-data-breach-investigations-report-dbir.pdf (verizon.com)]

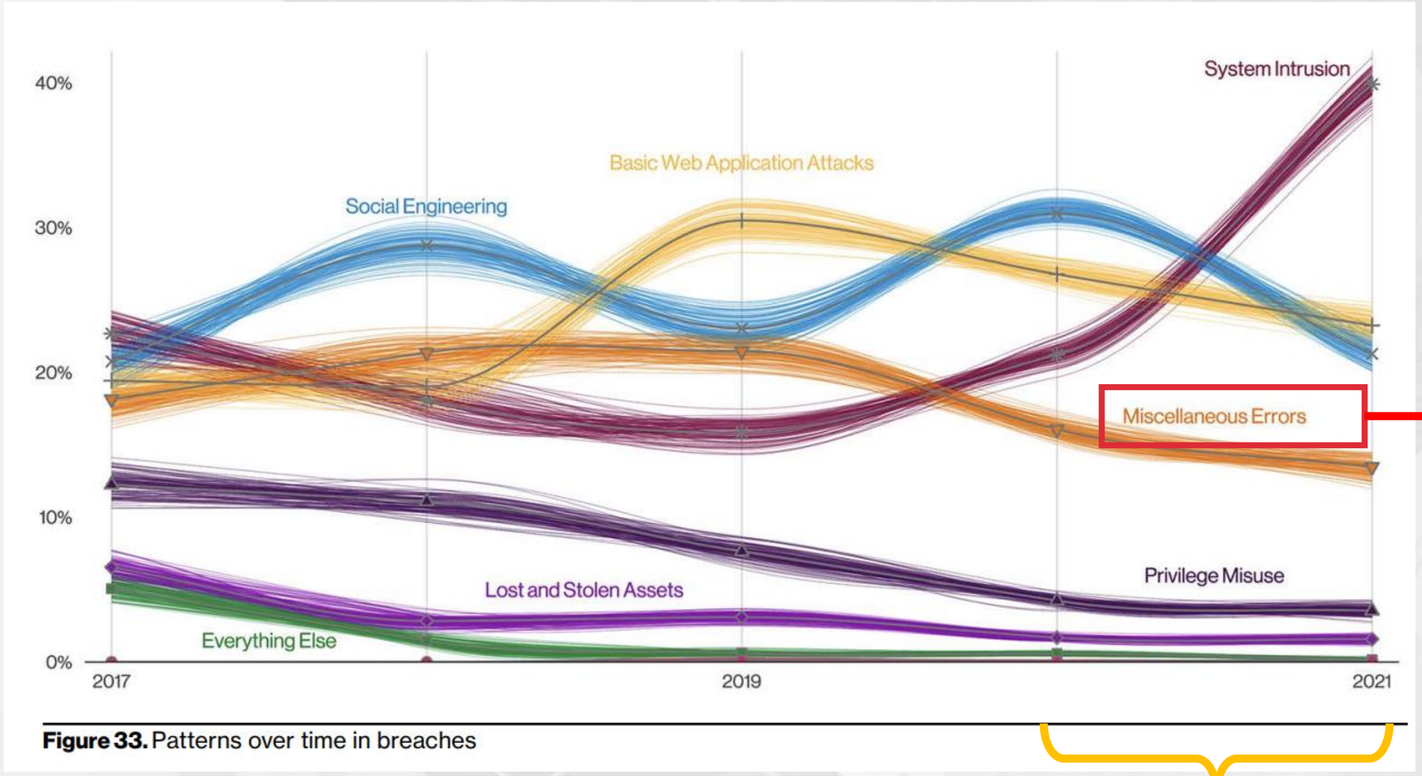


Figure 33. Patterns over time in breaches

12%-ish

Human Mistakes

(Mis-delivery & Mis-configuration)

82%

Human Element

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The Never-Ending Quest

Raising Awareness of Cybersecurity — ENISA (europa.eu)

Section 1.4 Definitions of Cybersecurity Awareness

Level of appreciation, understanding or knowledge of cybersecurity aspect…

… Awareness is not training…

The purpose… simply to focus on security…

… recognise IT security concerns and respond accordingly…

Awareness ≠ Competency

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The Never-Ending Quest

Digital Immigrant

Neurodivergent

Culturally Engaging

Role Specific Content

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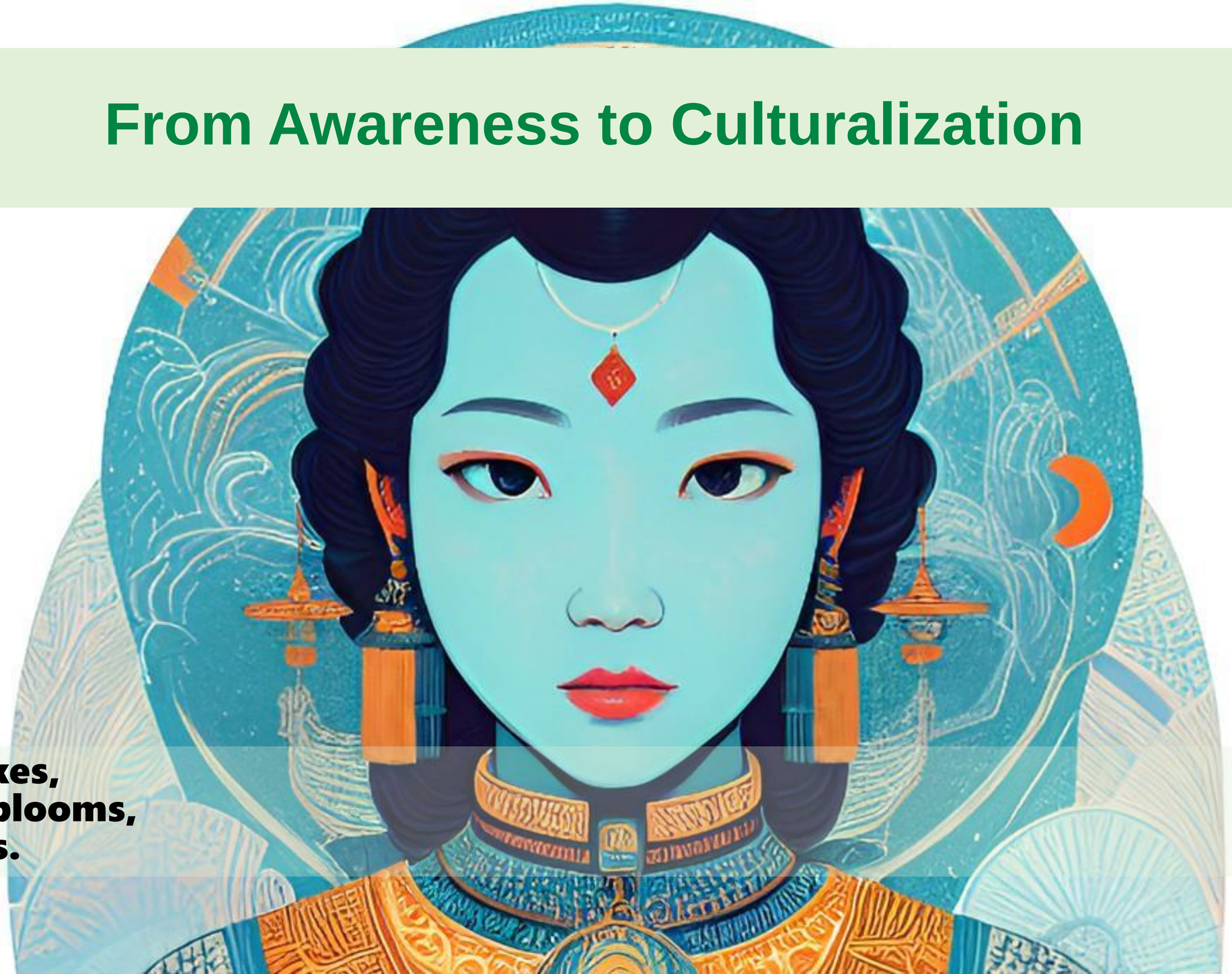
From Awareness to Culturalization



> **Awareness awakes,**
> **Culturalization blooms,**
> **Diversity thrives.**

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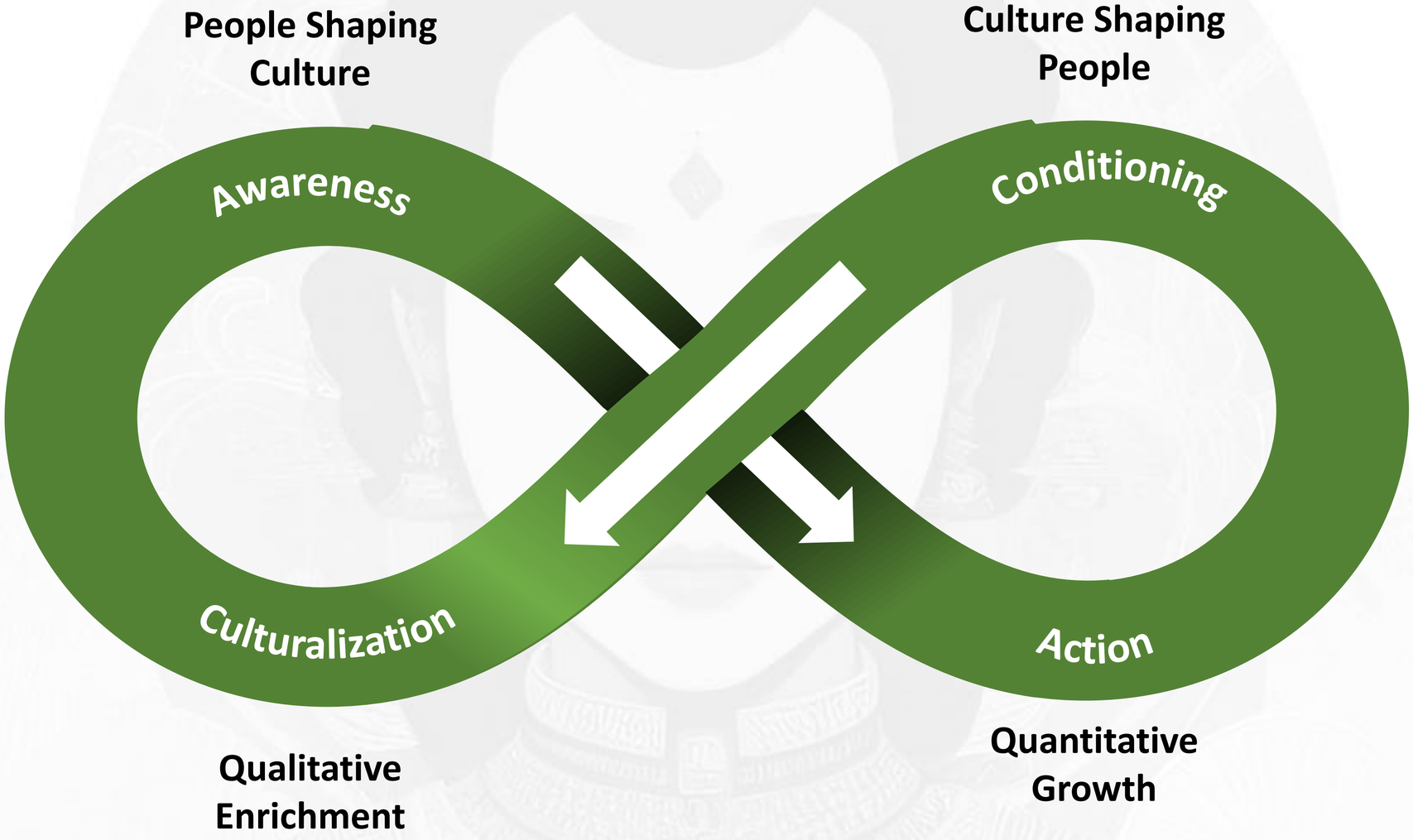
From Awareness to Culturalization



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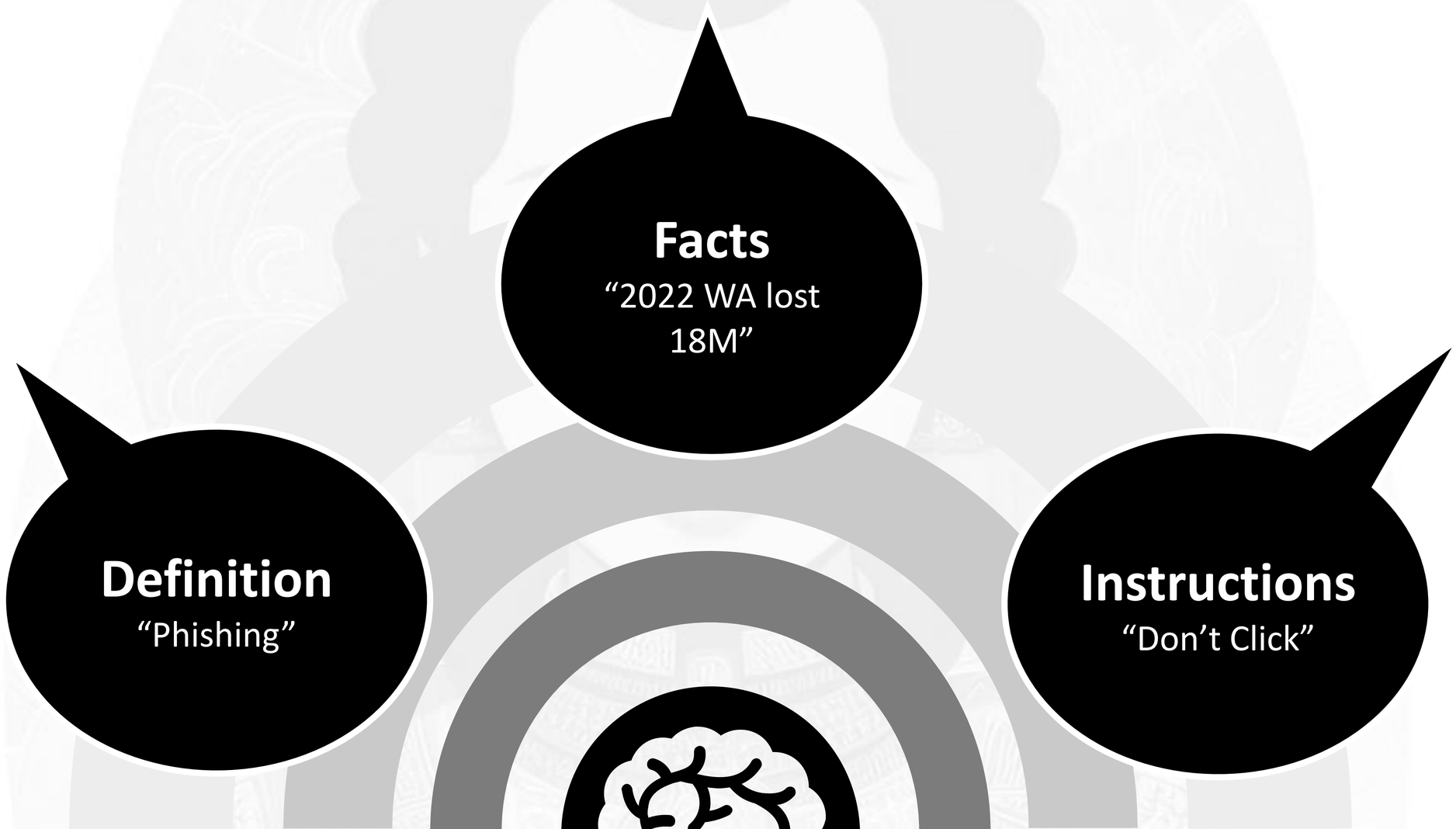
From Awareness to Culturalization



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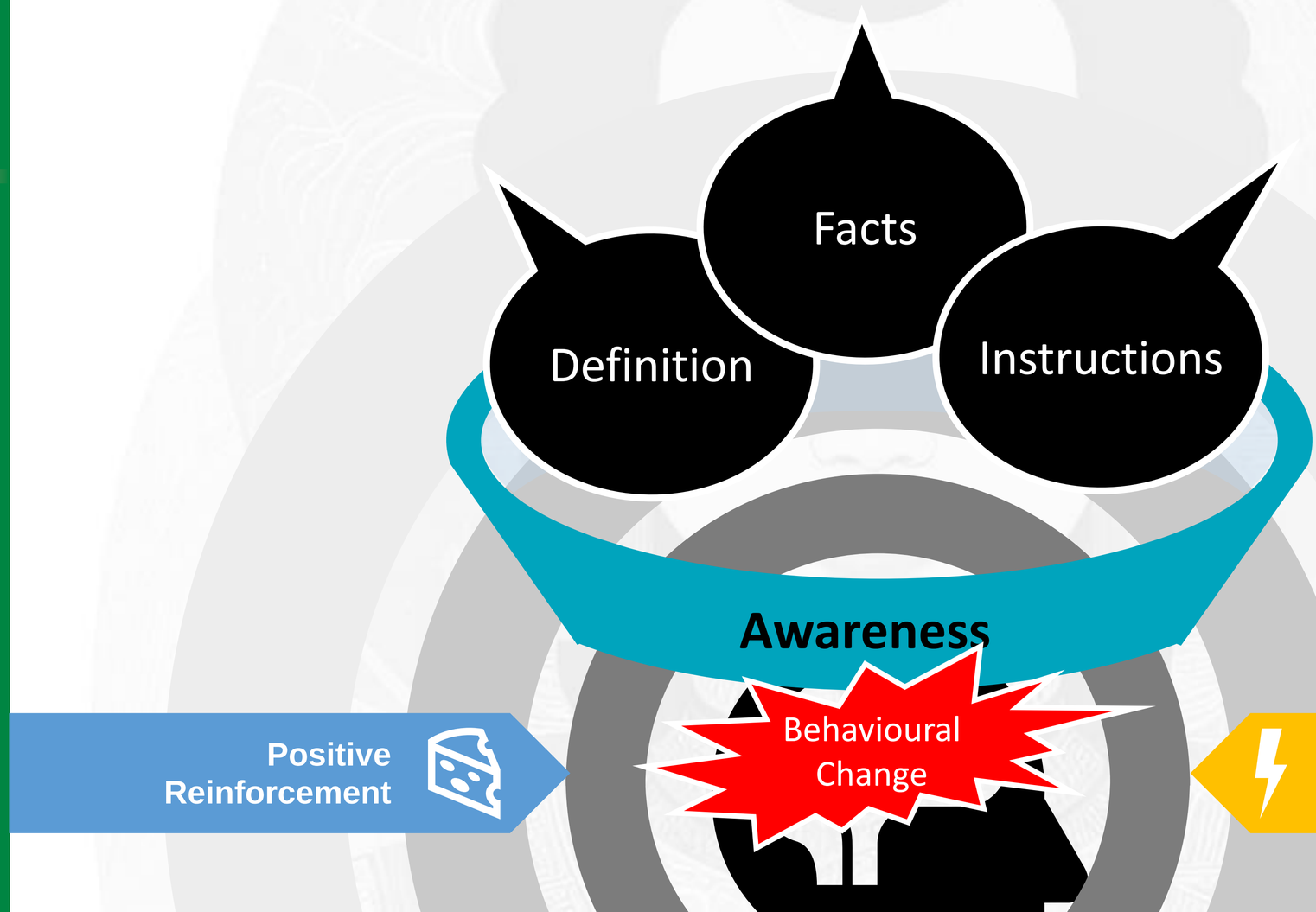
From Awareness to Culturalization



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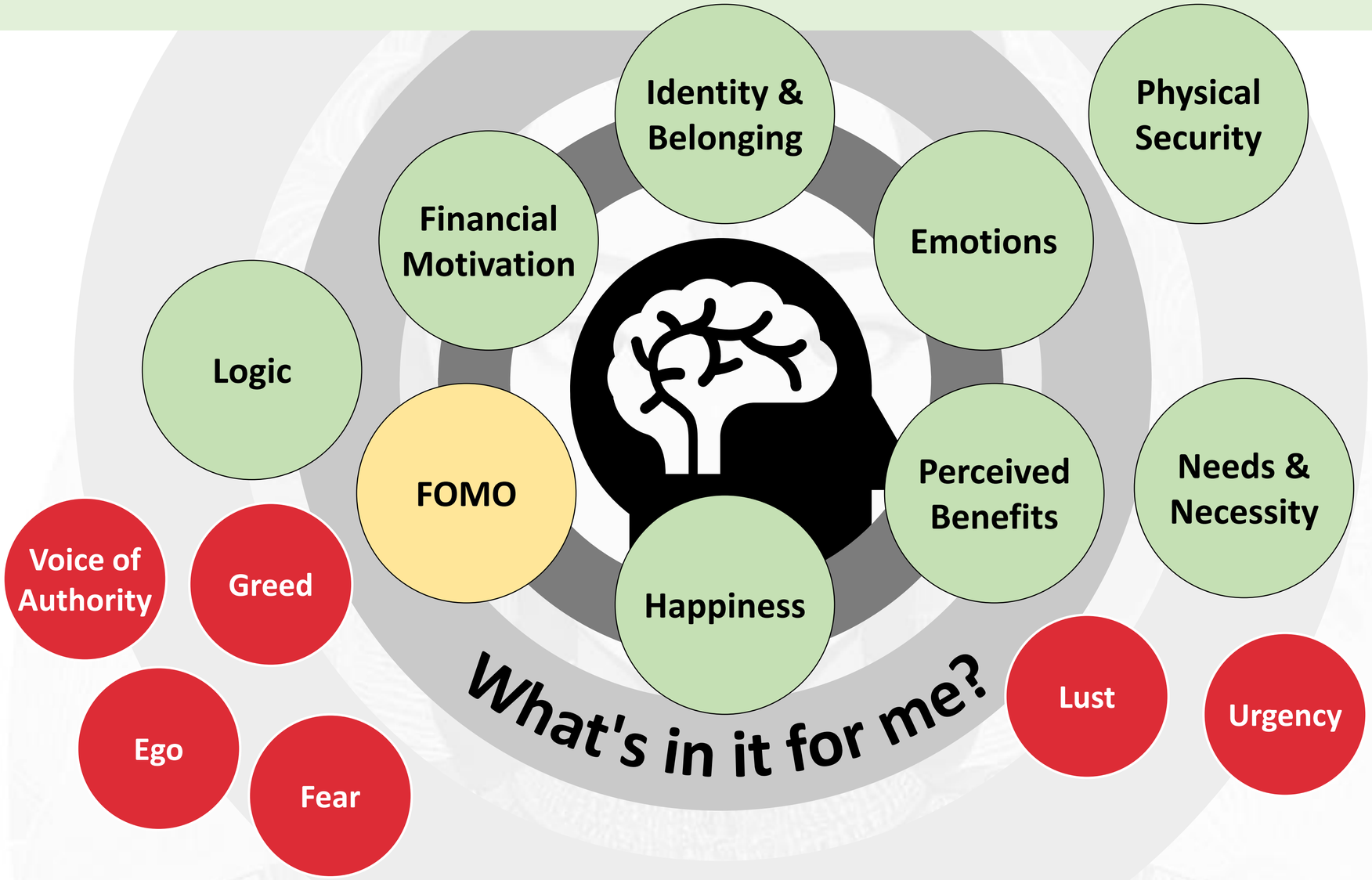
From Awareness to Culturalization



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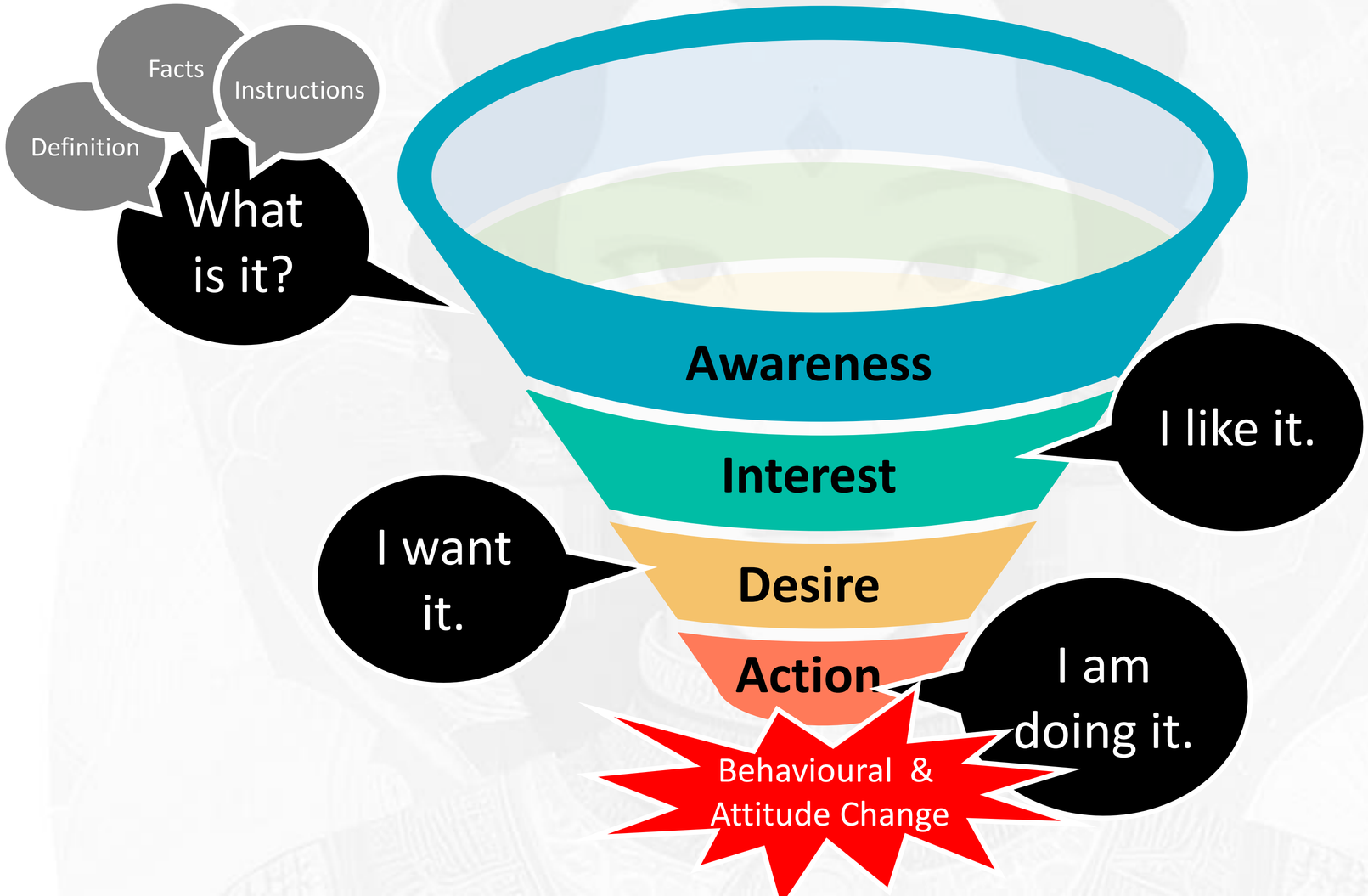
From Awareness to Culturalization



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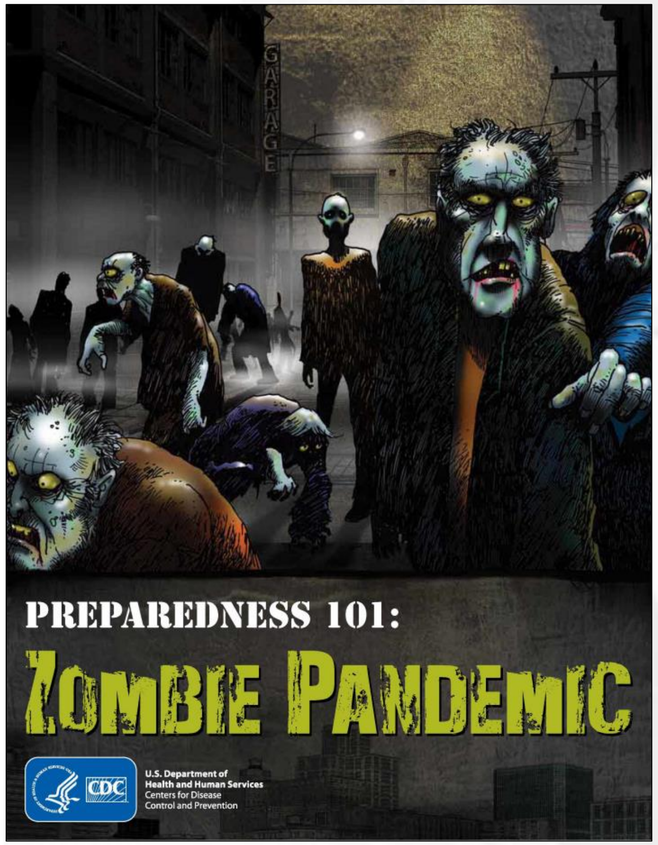
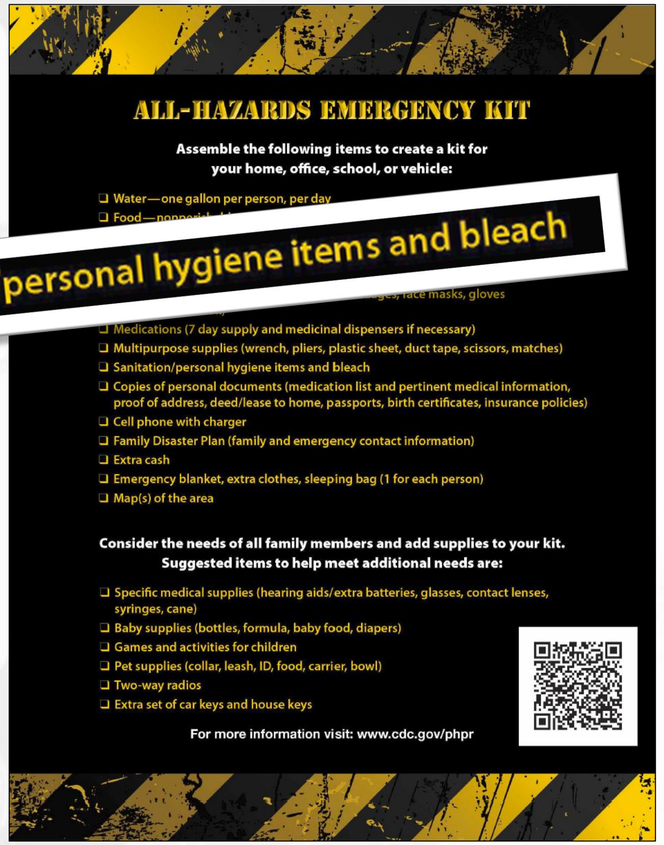
From Awareness to Culturalization





Preparedness 101; zombie pandemic (cdc.gov)

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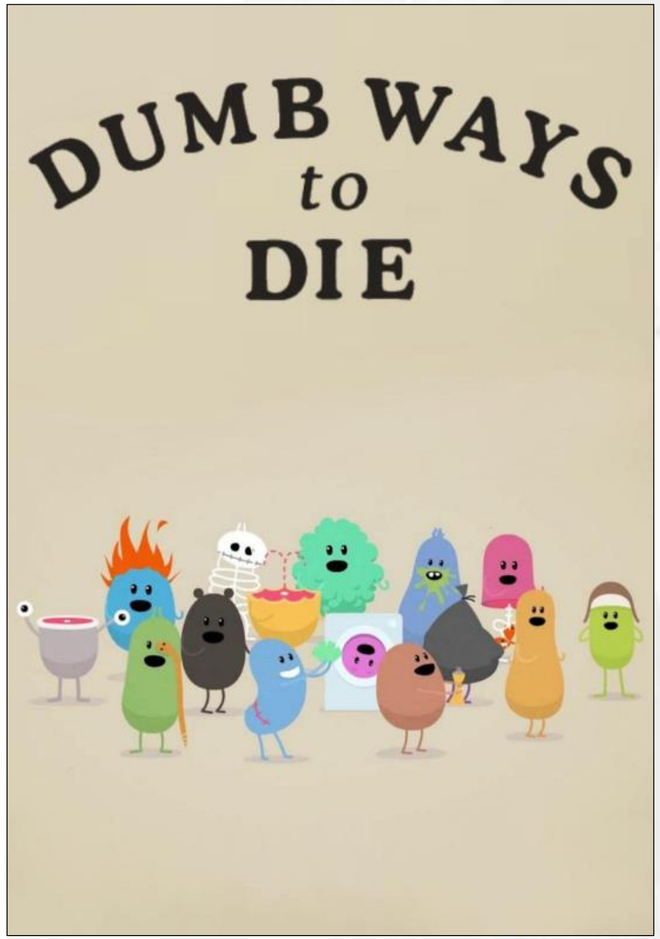
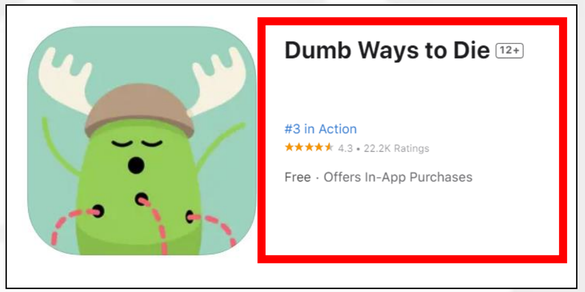
From Awareness to Culturalization



Dumb Ways to Die



Dumb Ways to Die

Dumb Ways to Die
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3M
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Google Play - https://tinyurl.com/dumbwaysandroid Show more

THE WEBBY AWARDS

7 Webby Awards

International Academy of Digital Arts & Sciences 2013

CANNES LIONS INTERNATIONAL FESTIVAL OF CREATIVITY

5 Grand Prix
18 Gold, 3 Silver, 2 Bronze

Cannes Lion International Festival of Creativity 2013

SIREN AWARDS

3 Siren Award

Commercial Radio Australia 2013

NEW YORK FESTIVALS

Grand Trophy

New York Festivals International Advertising Awards 2013

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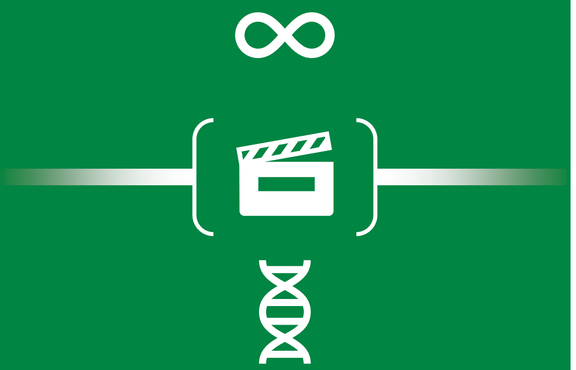

From Awareness to Culturalization

01

Work with educators and/or marketers

Adult learning is a lot more complex than designing a nice poster. The message, medium and method need to be appropriate.

02

Take a Whole-Person approach

Team members are also parents, siblings, children, carers, friends and community members. Make meaningful content that will help them outside of “work”.

03

Changing mindset and attitude, not just action.

People are not lab rats; teach them to think and develop their ability to cope with technology changes.

04

Derive learning from Incident

Make training meaningful and realistic by drawing on near misses and incidents, not just canned templates that will not pass your email gateway in the first instance.

05

Don’t overload you audience

There is always a point where “too-much” information results in people subconsciously rejecting the message.

06

Remember the law of diminishing return

Unless you have unlimited resources, you must plan how to deliver the message. Invest appropriately in technical and procedural control to complement the training.

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From Awareness to Culturalization

Conditioning

Externally stimulated and modified behaviour.

Culturalization

The DNA of who we are.

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From Awareness to Culturalization

- Organisation culture can limit the effectiveness of the cyber strategy.
- Culture is persistent and will outlast many cyber strategy.
- Successful cyber strategy leverages dominant cultural traits instead of against them.

“Culture eats strategy for breakfast”

Peter Drucker

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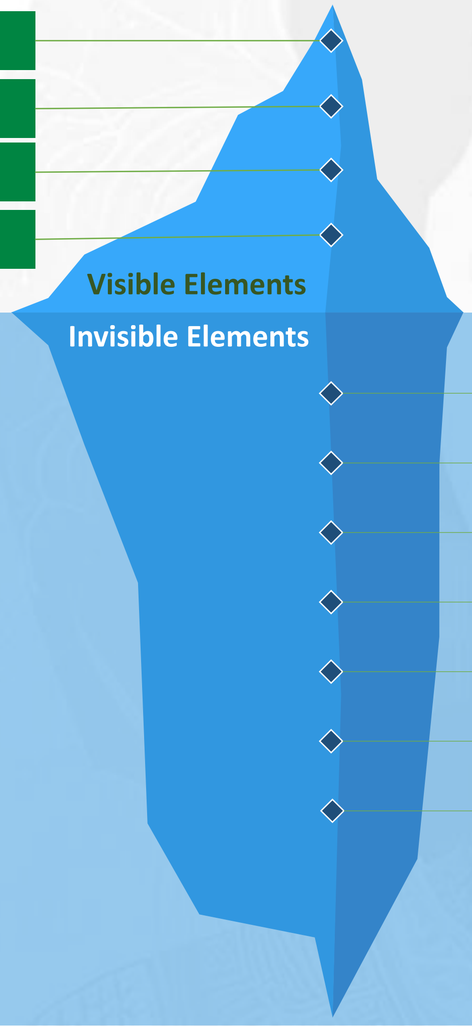
From Awareness to Culturalization



Climate Policy

Covid Vaccination

Gender Equality

Culture Iceberg Model

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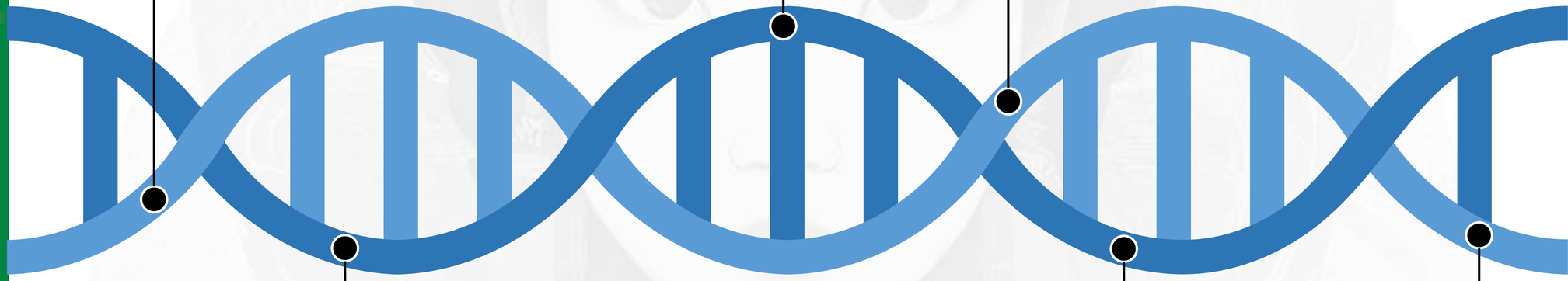
From Awareness to Culturalization



Senior Management adopts cyber in their everyday speech and discussion.

Create a safe, no-guilt environment for people to speak about errors and mistakes.

Recognise and activate non-cyber cyber influencers and champions.

Training technical workers is as crucial as getting Senior Managers' buy-in.

Cyber controls is embedded in all digital processes.

Foster and cultivate cyber partners and advocate by demonstrating ROI for cyber initiatives.

Building a people-led security culture

The Measure of ~~Success~~ Progress

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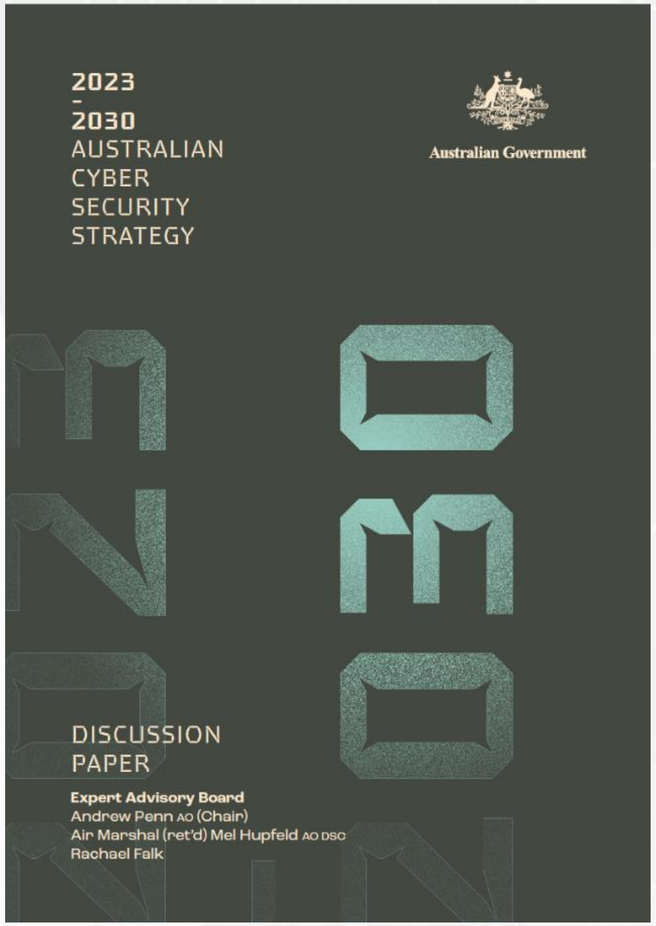
The Measure of ~~Success~~ Progress



2023-2030 Australian Cyber Security Strategy (homeaffairs.gov.au)

"Most cyber secure nation by 2030"

"Success is going from failure to failure without loss of enthusiasm."

Sir Winston Churchill, Abraham Lincoln

"You can't improve what you don't measure"

Peter Drucker

Building a people-led security culture

The Measure of ~~Success~~ Progress

Measured Analytics

Phishing Simulations

- Read Email
- Clicked Link
- Opened Attachment
- Entered Credential

Training Records

- Completion
- Assessment

Incident Report

- Root Cause
- Trending
- Threat environment

A Culture of Feedback

Focus Group

- Perception
- Attitude

Interviews & Survey

- Senior Management
- Non-Cyber Technical Specialist
- Non-Digital Worker

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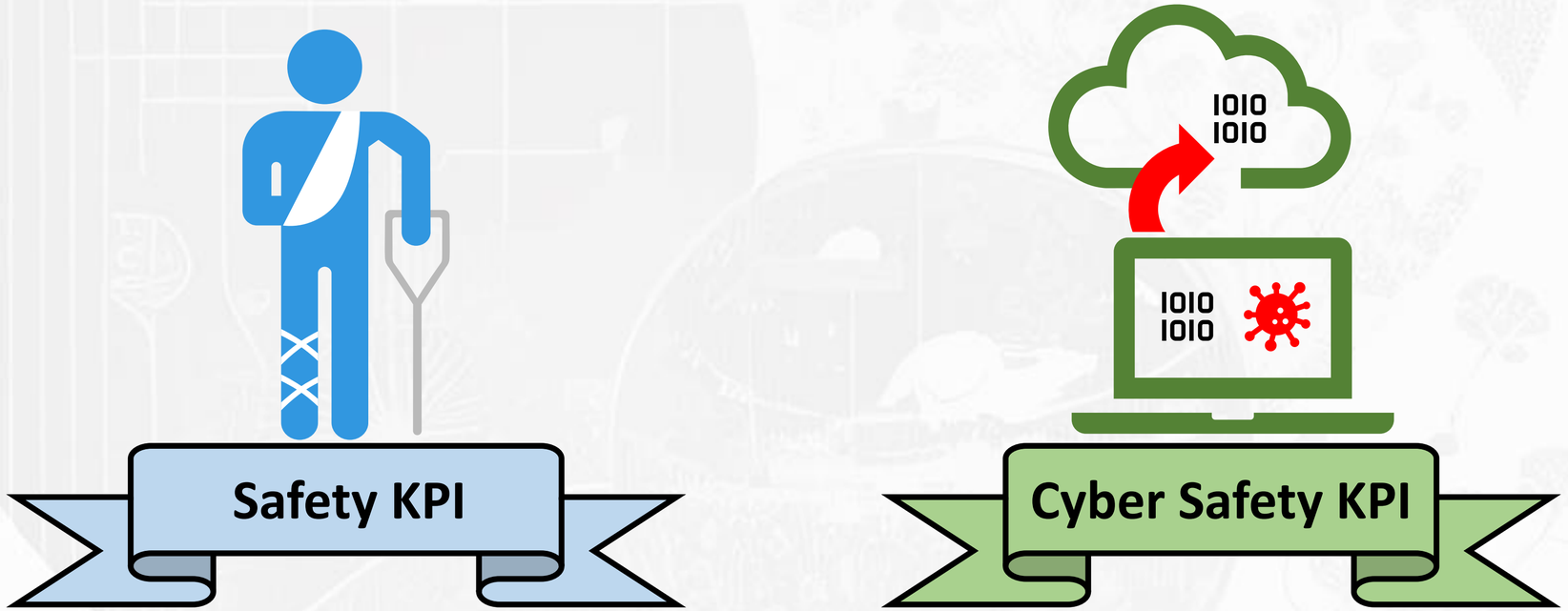
The Measure of ~~Success~~ Progress



Cyber KPI is recognised as a primary KPI and has financial implications.

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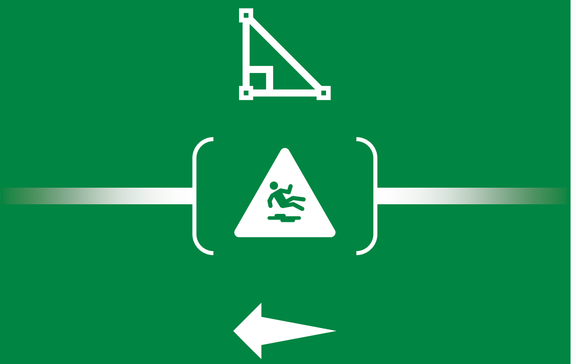

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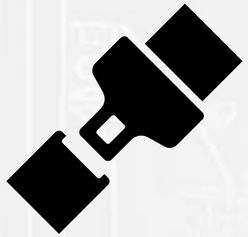

Seat Belt

Expected

Fire Extinguisher

Included

Embedded

Safety Boots

Economical

Cyber safeguards are included in everyday processes.

Building a people-led security culture

The Measure of ~~Success~~ Progress

Cyber responsibilities are distributed and maturity is organic in nature.

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The Measure of ~~Success~~ Progress

Cyber is nowhere but also Everything Everywhere All at Once.

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CISO Perth 2023

Joshua Qwek

Cybersecurity Architect

Joshua Q

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