

Under the patronage of **HRH Prince Khalid Al-Faisal**
Advisor to the Custodian of the Two Holy Mosques & Governor of Makkah Region



المؤتمر الدولي الثاني والعشرون لإدارة الأصول والمرافق والصيانة
The 22nd International Asset, Facility & Maintenance
Management Conference

Digitization - Excellence - Sustainability

Crisis Management and Business Continuity: How New Technologies and Innovations are affecting the Transportation Sector

26-28 January 2025

The Ritz-Carlton Jeddah, Kingdom of Saudi Arabia

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An Initiative By

OMAINTEC
المجلس العربي لإدارة الأصول والمرافق والصيانة
Arab Asset, Facility and Maintenance Management Council

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CRISIS & BUSINESS CONTINUITY MANAGEMENT

New Challenges: automation, digitalization,
connectivity, AI, and social media



ARE YOU READY TO INTERACT WITH
ME FOR THE NEXT
(~) 12 MINUTES?





WHAT JUST HAPPENED?

Crisis Management and Business Continuity: New Technologies and Innovations affecting the Transportation Sector



WHAT WERE YOUR EXPECTATIONS?



EXPECTATIONS
≠
REALITY



HOW DID YOU REACT?



**SURPRISED?
WORRIED?
FREEZE?**



“COMMUNICATION IS ABOUT WHAT
THEY HEAR AND SEE,
NOT WHAT YOU SAY.”



“IT TAKES TWENTY YEARS TO BUILD A REPUTATION AND FIVE MINUTES TO RUIN IT. IF YOU THINK ABOUT THAT, YOU’LL DO THINGS DIFFERENTLY.”

- Warren Buffett



CRISIS & BUSINESS CONTINUITY MANAGEMENT

New Challenges: automation, digitalization,
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CRISIS (MANAGEMENT)



A crisis is any event or circumstance that severely disrupts its normal operations, poses significant safety or security risks, threatens financial stability or reputation, and requires immediate, coordinated action to mitigate damage.

Safety Incidents or Accidents – abnormal situations, serious malfunctions, or security breaches that endanger passengers, crew, or the public.

Operational Disruptions – Unanticipated events (e.g., severe weather, natural disasters, labor strikes, IT system failures).

Reputational Threats – Public relations crises sparked by customer service failures, legal or regulatory issues, or social media controversies that damage trust in the airline.

Financial Instability – Sudden declines in revenue or spikes in costs (e.g., fuel price surges) that imperil the airline's financial position.

In these situations, swift decision-making, clear communication, and coordinated responses are crucial to restoring normal operations, ensuring the safety of passengers and staff, and limiting long-term reputational or financial harm.



CRISIS MANAGEMENT - THE BIG PICTURE



Defining Crisis Management

Crisis management is a systematic approach to

- preventing,
- preparing for,
- responding to,
- and recovering from crises.

It's a proactive and strategic process that aims to

- protect an organization's reputation,
- minimize disruption, and
- ensure business continuity

CRISIS MANAGEMENT - THE BIG PICTURE



In today's world

- We live in an interconnected and dynamic world,
- where organizations face a growing range of potential threats.

The need for robust crisis management is paramount! From cyberattacks and natural disasters to geopolitical tensions and media backlash, from accidents and customer services to economic crises and conflicting demands, the list is constantly growing.



MOBILITY & AVIATION: HIGH COMPLEX INDUSTRY



- Connectivity V2V
- Connectivity² V2V2I
- Connectivity³ V2"o"V2
- Video surveillance
- Infrastructure
- Utilization
- Integration
- ... (I could go on for hours, but I have only 12 minute...)



IS TRANSPORTATION / MOBILITY IMPORTANT?

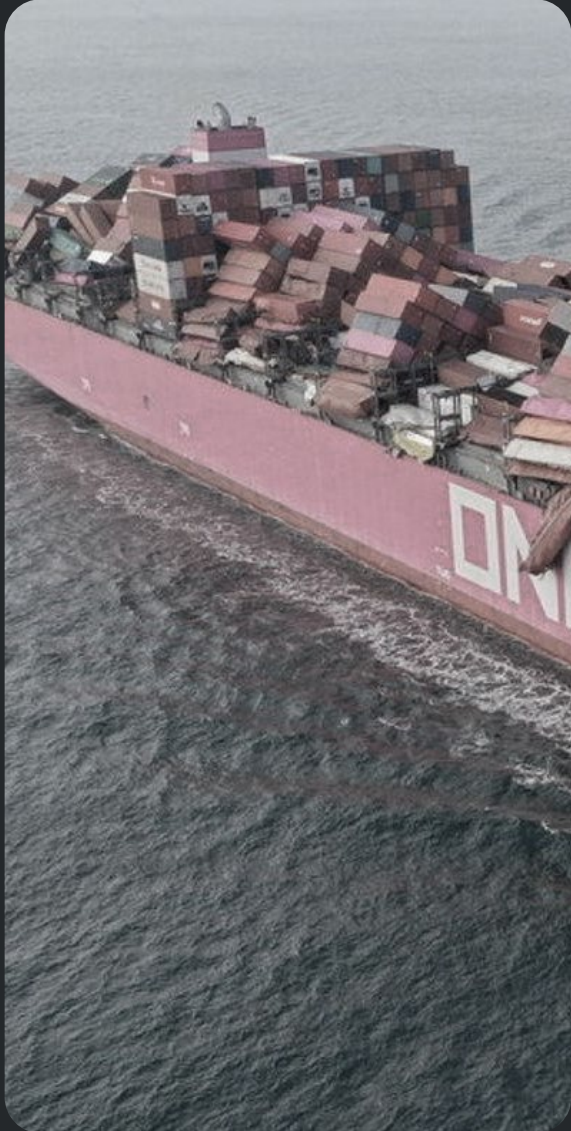
هل النقل/التنقل مهمان؟



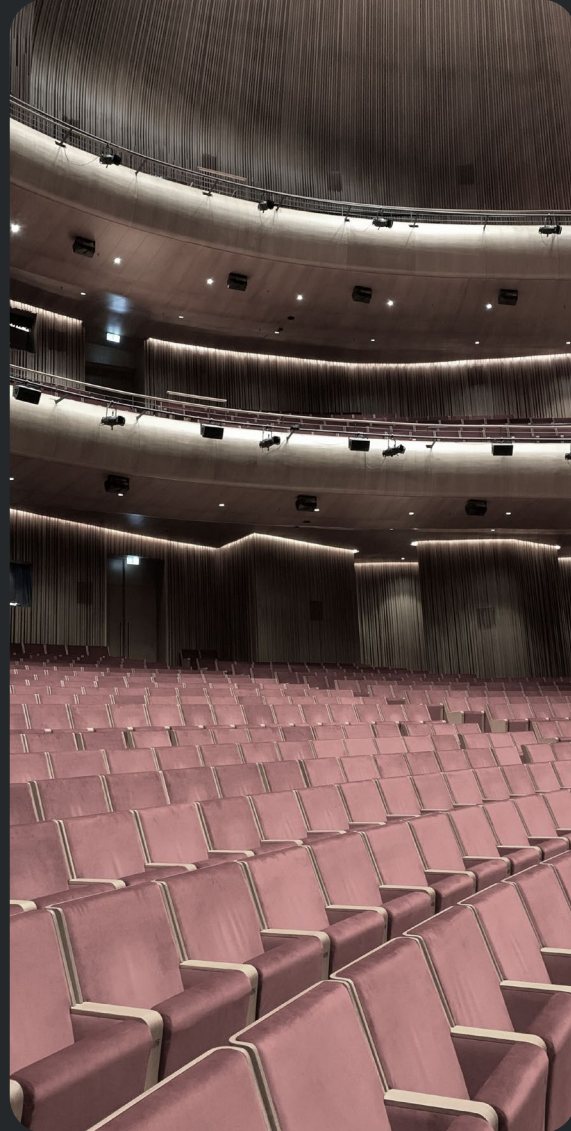
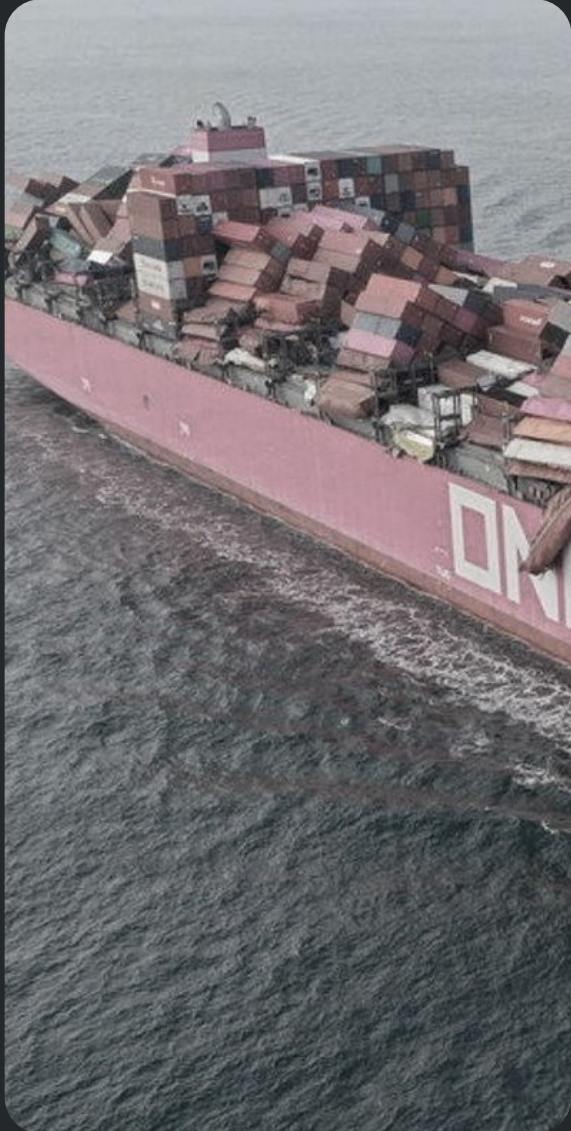
WHAT HAPPENS IF THE TRANSPORTATION SYSTEM STOPS?

ماذا يحدث إذا توقف نظام النقل؟

SUPPLIES, ECONOMY, CULTURE, "LIFE"



SUPPLIES, ECONOMY, CULTURE, "LIFE" STOPS!



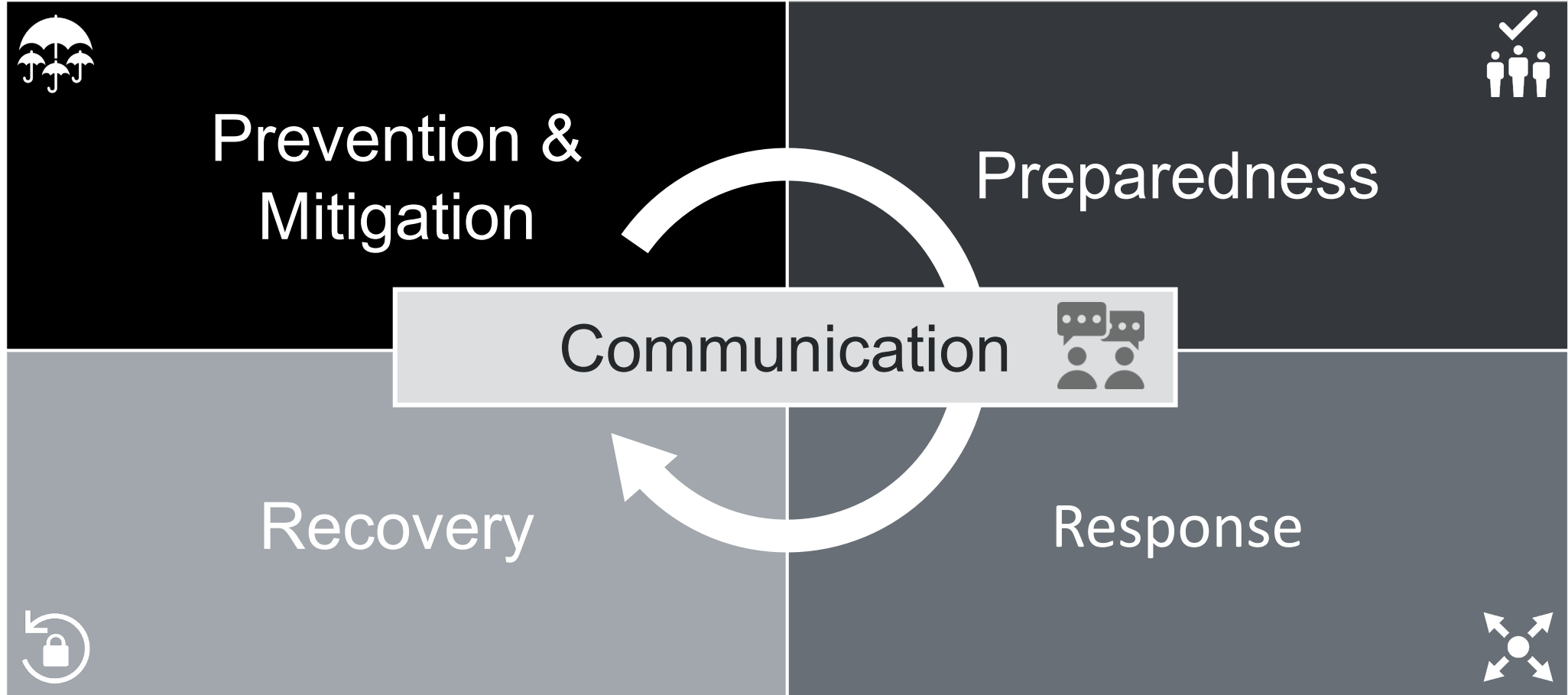


THIS IS WHY CRISIS MANAGEMENT IS IMPORTANT!



CRISIS MANAGEMENT & NEW/EMERGING TECHNOLOGIES

CRISIS MANAGEMENT STANDARD APPROACH

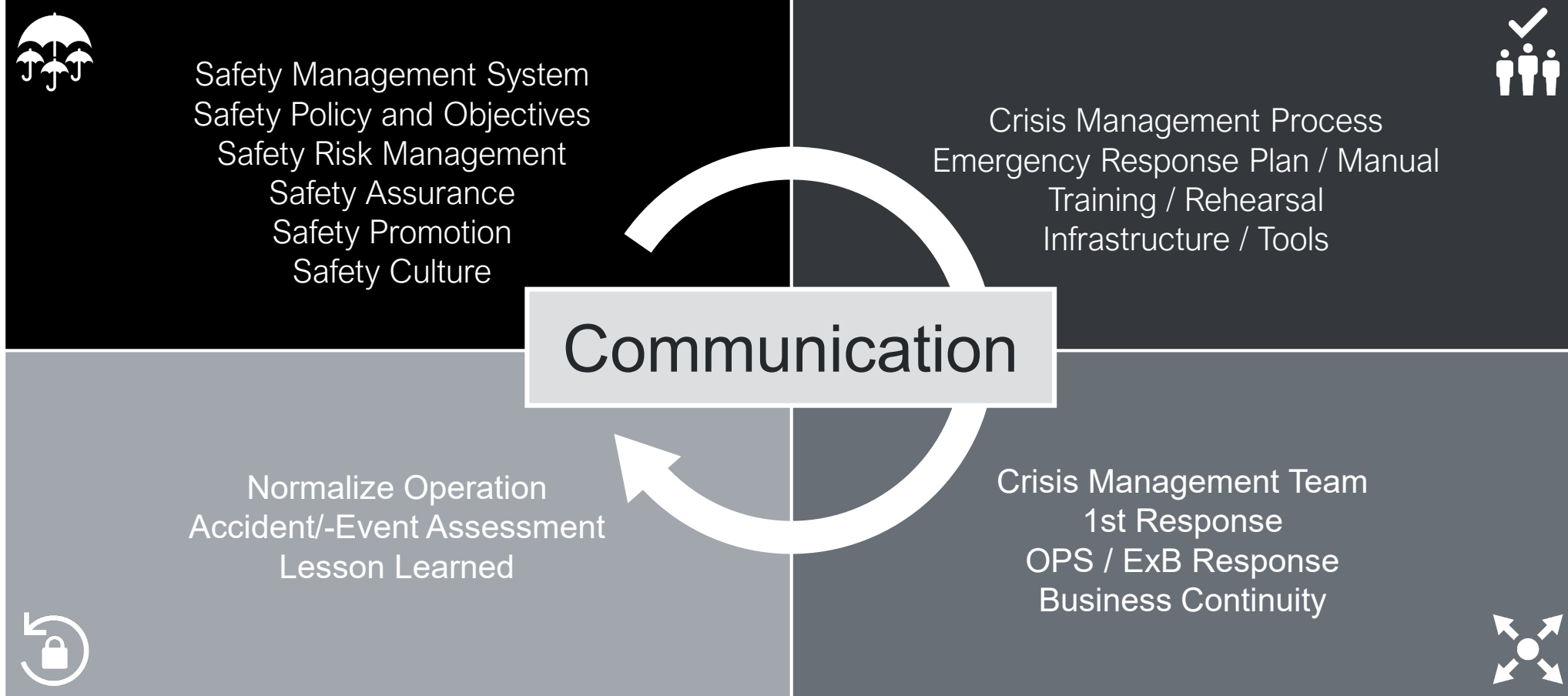


CRISIS MANAGEMENT STANDARD APPROACH



Prevention & Mitigation

Preparedness



Recovery

Response

Communication

CRISIS MANAGEMENT STANDARD APPROACH



Prevention & Mitigation



Safety Management System
Safety Policy and Objectives
Safety Risk Management
Safety Assurance
Safety Promotion
Safety Culture

Preparedness



Crisis Management Process
Emergency Response Plan / Manual
Training / Rehearsal
Infrastructure / Tools

5C: Concern, Commitment,
Competency, Clarity, and
Confidence.

Normalize Operation
Accident/-Event Assessment
Lesson Learned



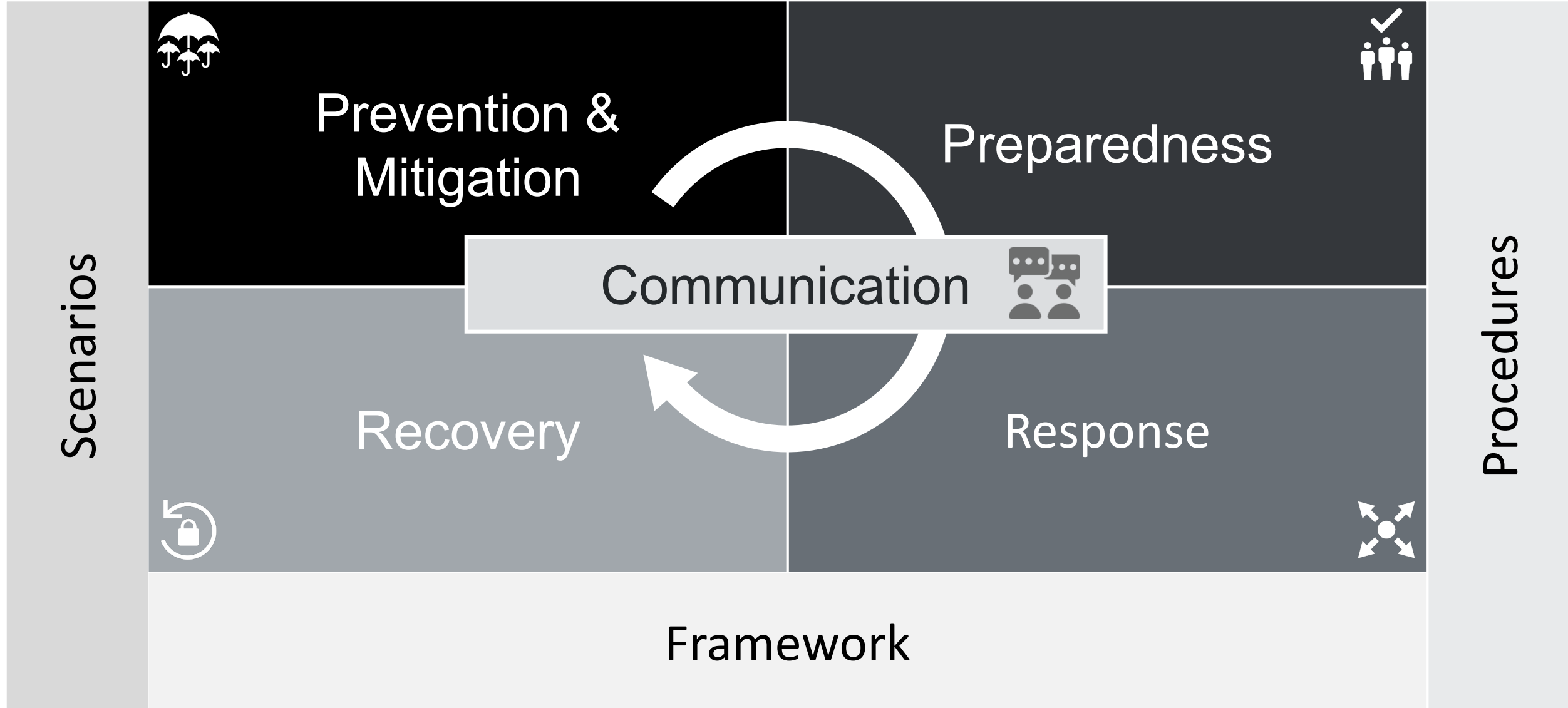
Recovery

Crisis Management Team
1st Response
OPS / ExB Response
Business Continuity

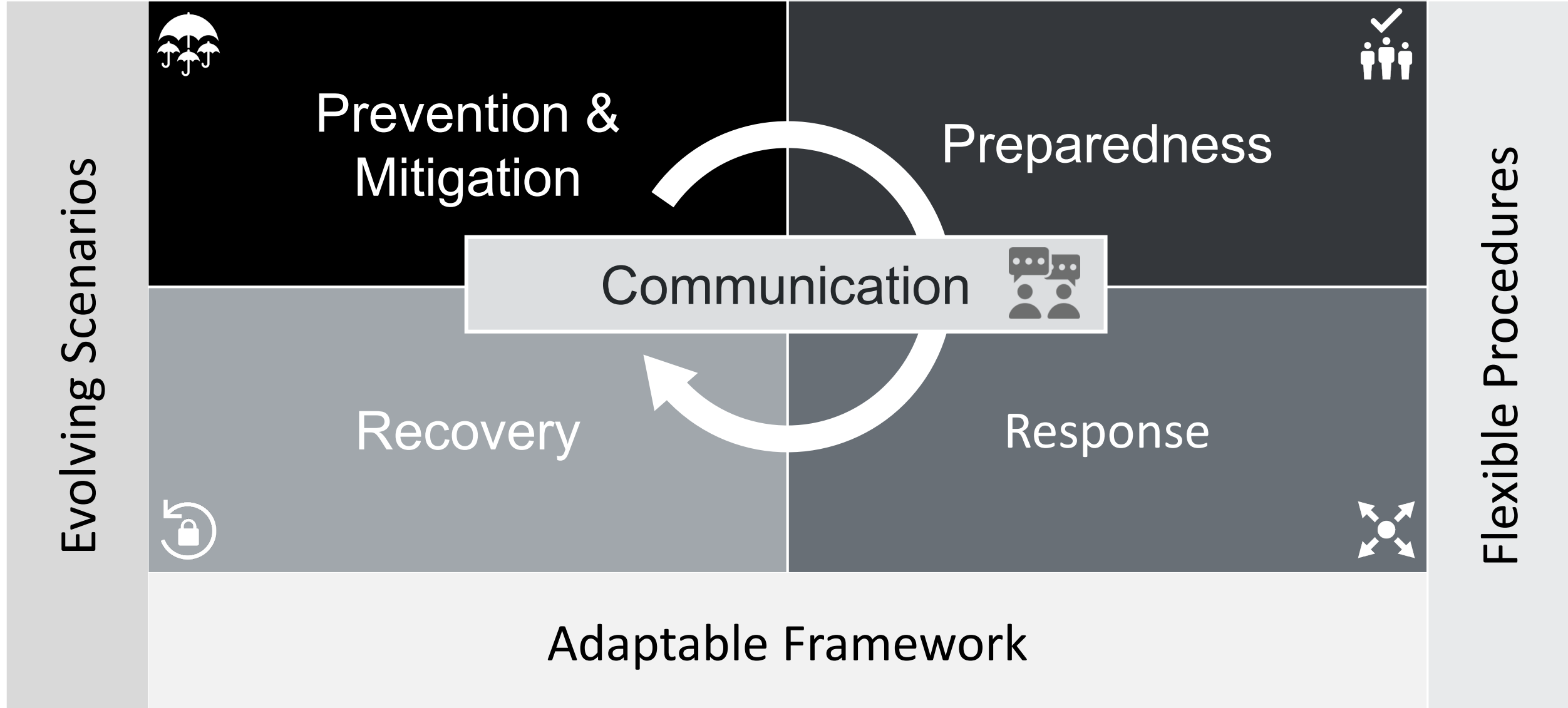


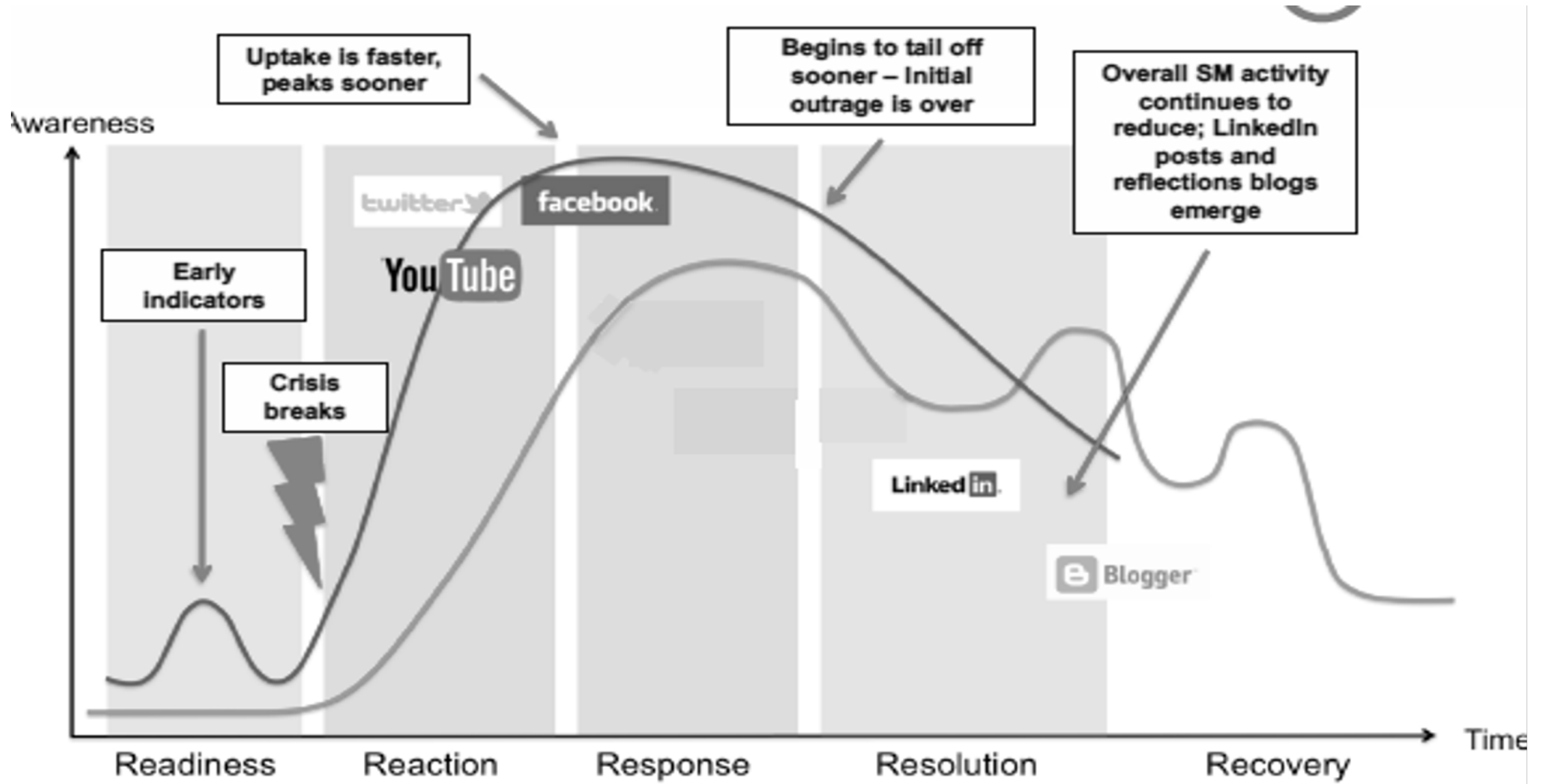
Response

CRISIS MANAGEMENT ELEMENTS+



CRISIS MANAGEMENT ADAPTABLE APPROACH





NEW/EMERGING TECHNOLOGIES



Artificial Intelligence (AI) and Machine Learning

Internet of Things (IoT) and Sensor Networks

Advanced Communication Networks (5G,6G)

Augmented (AR) and Virtual Reality (VR)

Quantum Computing

Advanced Cybersecurity, Blockchain

Autonomous Vehicles and Robotics

Nanotechnologies, Amorphous Materials

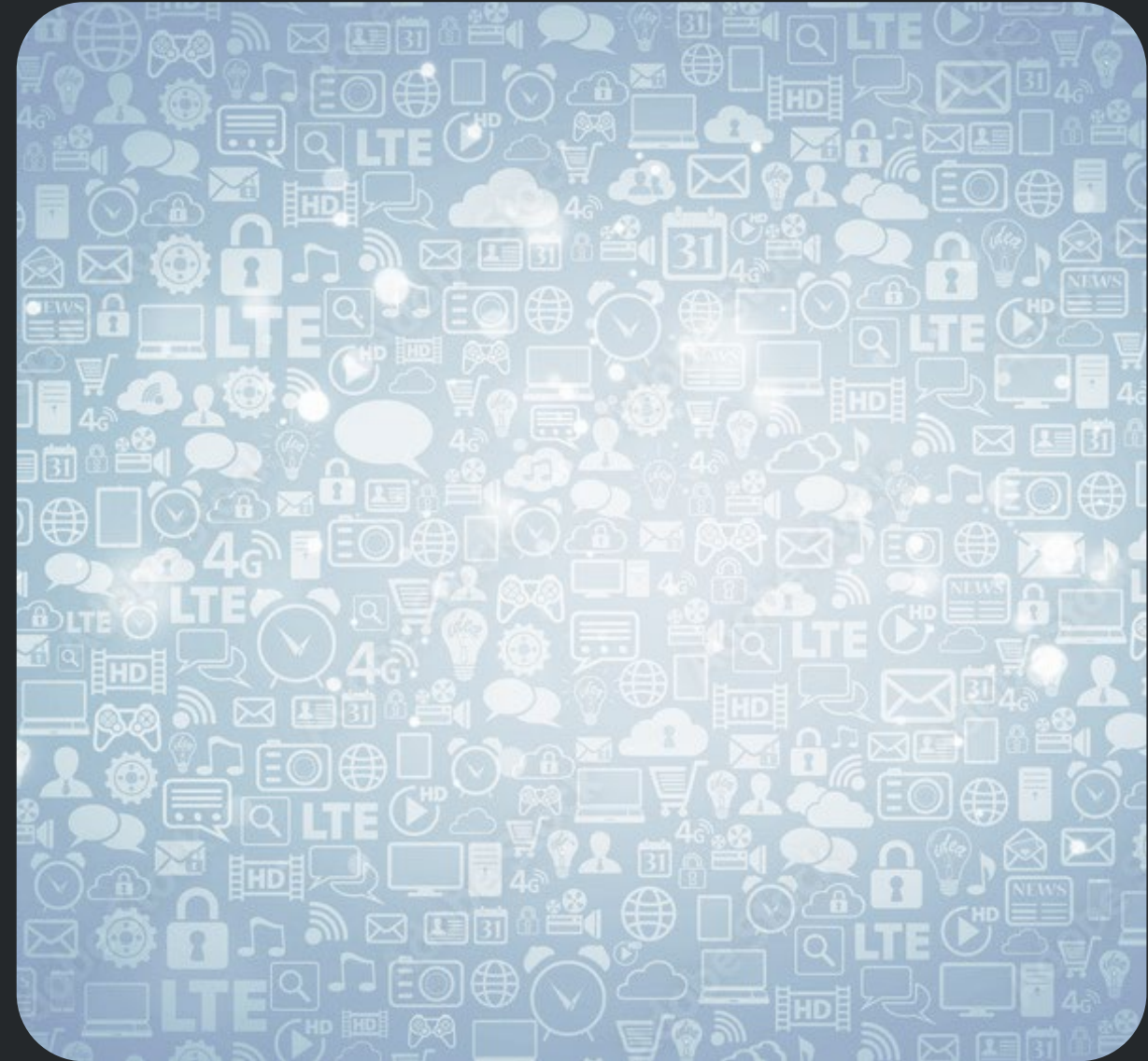
MEDIA



Facebook, YouTube, WhatsApp,
Instagram, TikTok, WeChat,
Telegram, LinkedIn, Snapchat, X
Pinterest, Quora, Vimeo | Blogs |
Darkweb | Traditional Media | Private
TV | Cable TV | ...

Information accessibility

Misinformation | Fake news

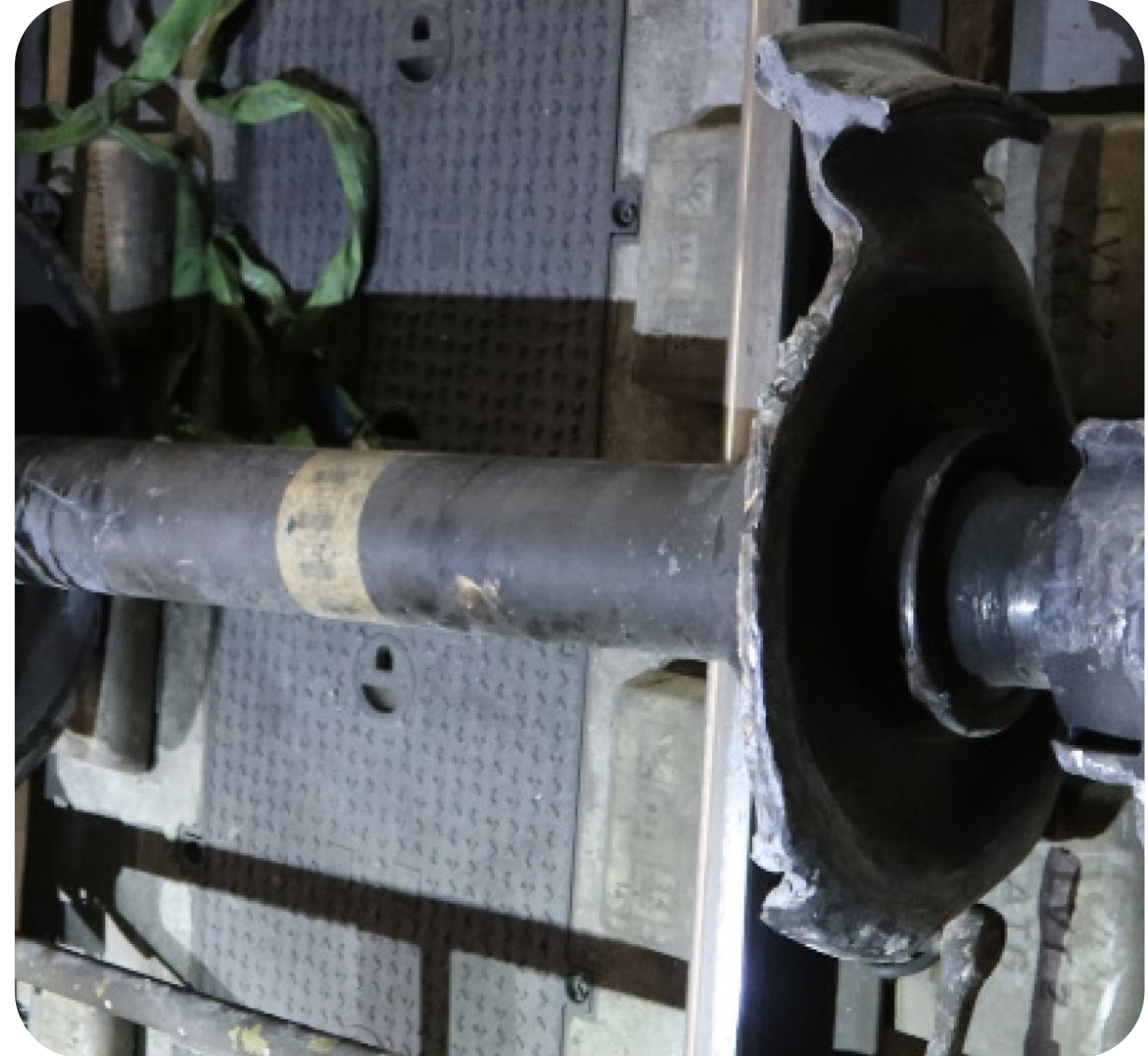


EXAMPLE OF CRISIS: GOTTHARD ACCIDENT



- The Gotthard base tunnel is the longest Railway tunnel in the world at 57.1 km
- A Freight Train derailed approx. 10 km into the tunnel and continued to drive for another 10 km.
- Damages to the infrastructure
- Closure for more than 1 year

EXAMPLE OF CRISIS: GOTTHARD ACCIDENT



AVALLE APPROACH TO CRISIS MANAGEMENT



Trainingⁿ

- Real-life simulation.
- Portable simulation studio with adaptable scenarios.
- Video recording, movement tracking, heatmap, eye-tracking (2026), Body temperature (2026).
- Blocking external communication.
- Targeted adaptability.

Note: 6 months of preparation required

AVALLE APPROACH TO CRISIS MANAGEMENT



Process Macro-analysis

- Complexity and Interconnections
- Regulatory Environment and Safety
- Technical & Operational
- Intergration

Process Micro-analysis

- Defining step-by-step action at activity level
- Leveraging scenario adaptability thru AI & other technologies



REMARKS FOR NEW TECH(S)



- Automated step-by-step procedure
- Digital documentation / App
- App is “learning” thru your actions
- Pay attention to the earlier signals
- Back-up in a non-digital way
- Training , Training, & Training

Training, & Training,

& Training, & Training, &

AT LAST, IN A FEW WORDS

Emerging technologies have the potential to help or harm

Reliance on technology is overestimated (overreliance)

In complex, difficult and unexpected situations, human factors play a critical role.

New technologies can only help identify, prevent and simplify tasks in conjunction with a human.



THIS IS THE VERY LAST SLIDE!



Invest wisely in new technologies.
Always consider the human factor;
do not neglect the power of emotion.

Innovate, be curious, and embrace
the unknown. This will prepare you
for the unexpected.

WHO AM I?

Simone Bernasconi

Chief Risk and Certification Officer / CEO Advisor at Manta Aircraft
Head of Advanced Transportation Programs at SUPSI
Founder of Avalue, Editor of Mobilities, Host and creator of meets

My areas of expertise/teaching

Advanced Air Mobility

Future Mobility

Public Transportation

Aviation & Airports

Transportation, SCM

High-Tech Industries

Emerging Technologies

Safety, Risk & Crisis Management

Strategy & Business Development

Innovation & Creativity

Maintenance & Engineering

Certification

Operations

Events, Conferences & Marketing



لنتحدث عن التنقل

Reden wir über mobilität
Parlons de mobilité
Parliamo di mobilità
Let's talk about mobility
让我们来谈谈移动性



WHO AM I?

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Head of Advanced Transportation Programs at SUPSI

Founder of Avalor, Editor of Mobilities, Host and creator of meets

With nearly 30 years of experience in various technical, project/program management and executive positions in the aviation and mobility sectors, I have consistently demonstrated my role as a responsible leader by consistently achieving goals in complex and harsh environments. I am an innovator, storyteller, creative engineer, mentor and strategist. I have been on the move around the world for decades and have now settled in Uster (Switzerland) since 2018. I am a father of one daughter and happily married.

My professional life is deeply rooted in my values. I firmly believe that simplicity is the key to success, that innovation goes beyond technology, and that respect is the cornerstone of lasting relationships. I am also certain that mobility is the lifeblood of business, cultural exchange, sustainable development, social inclusion and much more...



لنتحدث عن التنقل

Reden wir über mobilität
Parlons de mobilité
Parliamo di mobilità
Let's talk about mobility
让我们来谈谈移动性





AVALLE

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