Vietnam Airlines
SẢI CÁNH VƯƠN CAO

NAVIGATUS CONSULTING

Safety 1st

KHÓA HỌC 2021 - 2022

QUẢN LÝ ĐIỀU HÀNH LIÊN TỤC

BUSINESS CONTITUITY MANAGEMENT

Giảng viên: Geraint Bermingham

Ngày 20-21/12/2021

ĐẠT VHAT CẤP CHỦ ĐỘNG 4.0

Slide pack #1 of 4

Business Continuity Management
(BCM)

also referred to as:

Business Continuity Planning
(BCP)

Introductions

Geraint Bermingham

BEng (Hons), Post Graduate Diploma (Nuclear technology),

Geraint has about 35 years of formal risk management experience, 25 years in complex organizational and operational settings.

He gained this experience initially as a British Royal Navy nuclear submarine officer, and subsequently based in New Zealand.

He has also worked in the USA, Singapore, Indonesia, Korea and Australia.

Geraint was the New Zealand representative on the committee that developed the first global risk management standard ISO31000 and assisted the Australian committee for the development of ISO31010 (Dependability) as well as AS/NZS HB89 (Risk assessment techniques) and the Business Continuity Handbook AS5050.

Chair of RiskNZ (professional institute), for 3 consecutive 2-year terms.

Awarded NZ Risk Professional of the Year: 2014

Experience

A range of experience:

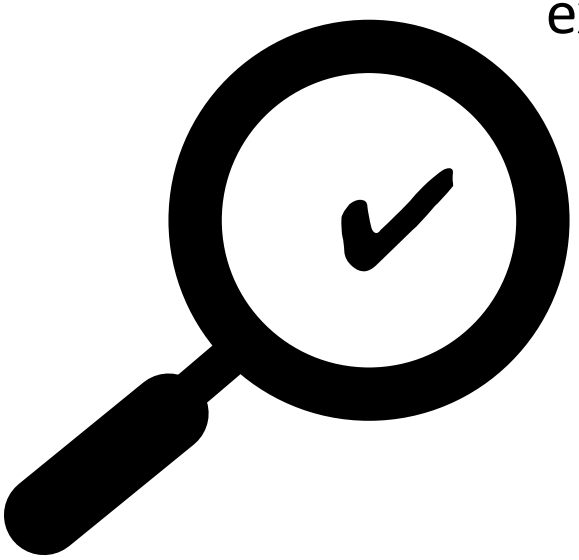
- Royal Navy (UK) - Nuclear submarine engineer
- Royal Navy (UK) - Aircraft carrier operations
- Maritime salvage
- Airline risk management:
  - Manager Operational Risk
  - Manager Business Continuity
  - Manager Risk and Performance
- Consultant (Navigatus Consulting Ltd):
  - Airline crisis response exercise design and facilitation
  - Airport crisis response exercise design and facilitation
  - Airline, airport, ANSP: Risk management

Introductions – Attendees

1. Preferred name
2. Role within the airline
3. Experience with formalised risk management
4. Where speaking from

The objective of this training course is:

To develop a good working level understanding of business continuity management and planning as applicable to all parts of a full service airline group and to form the foundation for the development of core expertise in business continuity management.



Agenda

- The fundamentals of BCM
  - The nature of disruption
  - Past examples
  - ICAO Requirements
  - IATA guidance

- Developing a BCM framework
- Management of events
- Risk mapping the business
- Applying the process across the Group
- Recap course content

Crisis Response Planning

- Emergency Response Planning (ERP)
- Crisis Management
- Business Continuity Management (BCM)
- Business Continuity Planning (BCP)

Context

Headquarters: Hanoi

Hubs:

•Noi Bai International Airport (Hanoi)

•Tan Son Nhat International Airport (Ho Chi Minh City)

Secondary hubs:

•Da Nang International Airport

Focus cities

•Phnom Penh International Airport (Cambodia)

•Siem Reap International Airport (Cambodia)

Vietnam Domestic – 18 routes and 4 destinations.
Asia – 56 routes and 31 destinations.
Europe – 40 routes and 30 destinations.
Americas – 23 routes and 20 destinations.
Africa – 1 route and 1 destination.

Context

The Physical Environment

Fleet: >100 Aircraft

Domestic / International / SkyTeam

Destinations ~ 64 (Domestic International)

Subsidiaries

- Pacific Airlines
- Vietnam Air Services Company
- Vietnam Airlines Caterers
- Vietnam Airlines Cargo
- Vietnam Airlines Engineering Company (VAECO)

Complex, dynamic, interdependent, critical, valuable – essential!

Up next: Disruption? Threats?

Exercise 1 : Threat identification

Image source: https://vietnamenews.vn

Disruption?

Exercise: Identify one example of a possible cause or situation each of the following

- Your own perception – no right or wrong answers.

Business Disruption	Major	Minor
Acute disruption		
Chronic disruption		
Business impact		
Emergency		

We will tally each of the answers up

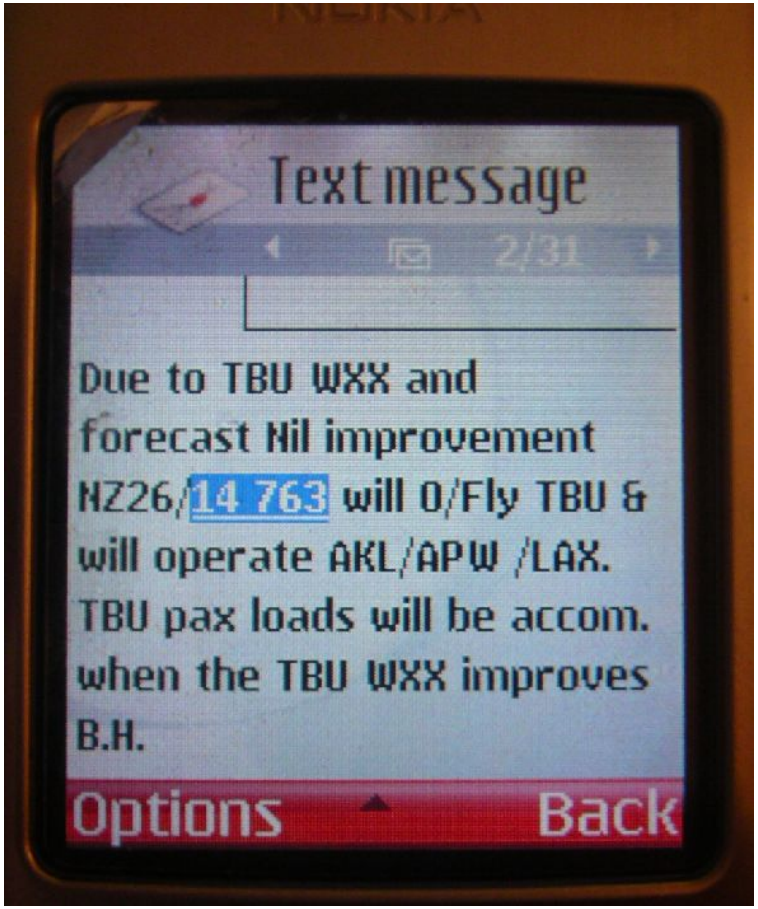
Disruption?

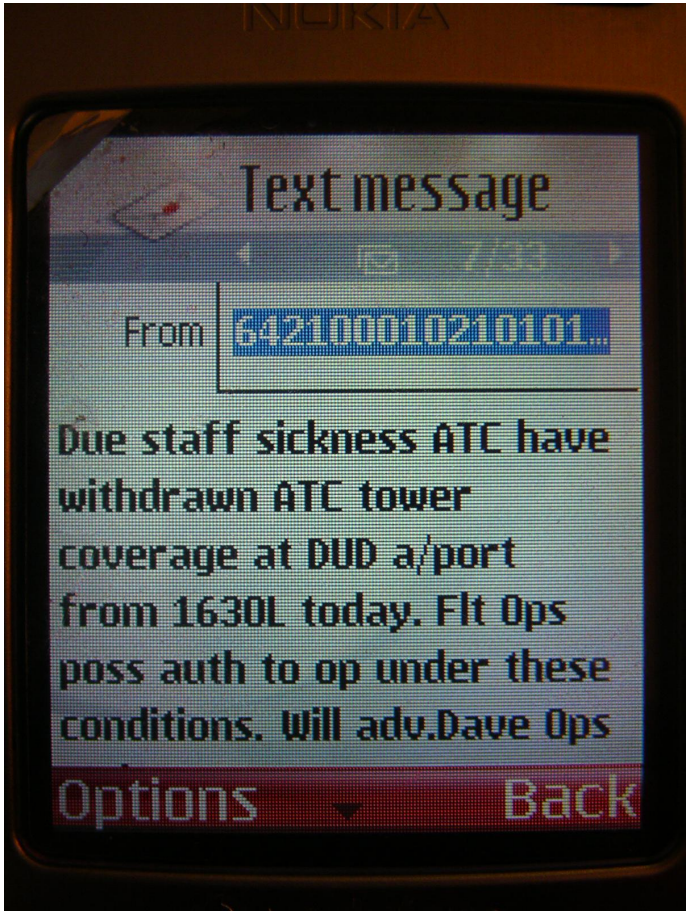
Results

Business Disruption	Major	Minor
Acute disruption		
Chronic disruption		
Business impact		
Emergency		

Disruption happens!

Nature of Impacts and Types of Response





Nature of Impacts and Types of Response

- Acute
- Chronic
- Business
- Emergencies

- Major
- Minor

Disruption happens!

5-Nov-2021

U.S. airline disruptions cast a pall over holiday travel

27-Jul-2002

Computer Glitch Delays Delta Flights

2001 the worst year for Aviation ever

14-Aug-2003

Airlines Cancel Flights After North America Blackout

15-Aug-2003

Air Canada System Operations Temporarily Suspended Due Primary and Secondary Power Failure

25-Sep-2003

Fuel Shortage Hits Sydney Airport

Crisis talks to bail out airlines

01-May-2004

Computer problems ground all Delta Air Lines flights

06-Sep-2004

Rat's dinner blacks out airport

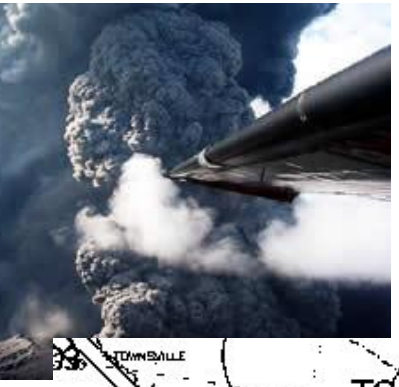
25-Nov-2004

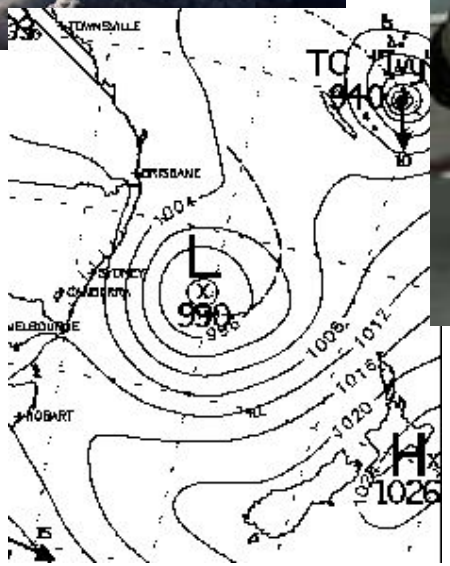
Computer Burp Forces Lufthansa Cancellations

22-Jan-2006

Rare Tokyo snow strands 10,000 at Narita airport

Disruption happens!





Exercise 2 : Major events

Image source: https://vietnamenews.vn

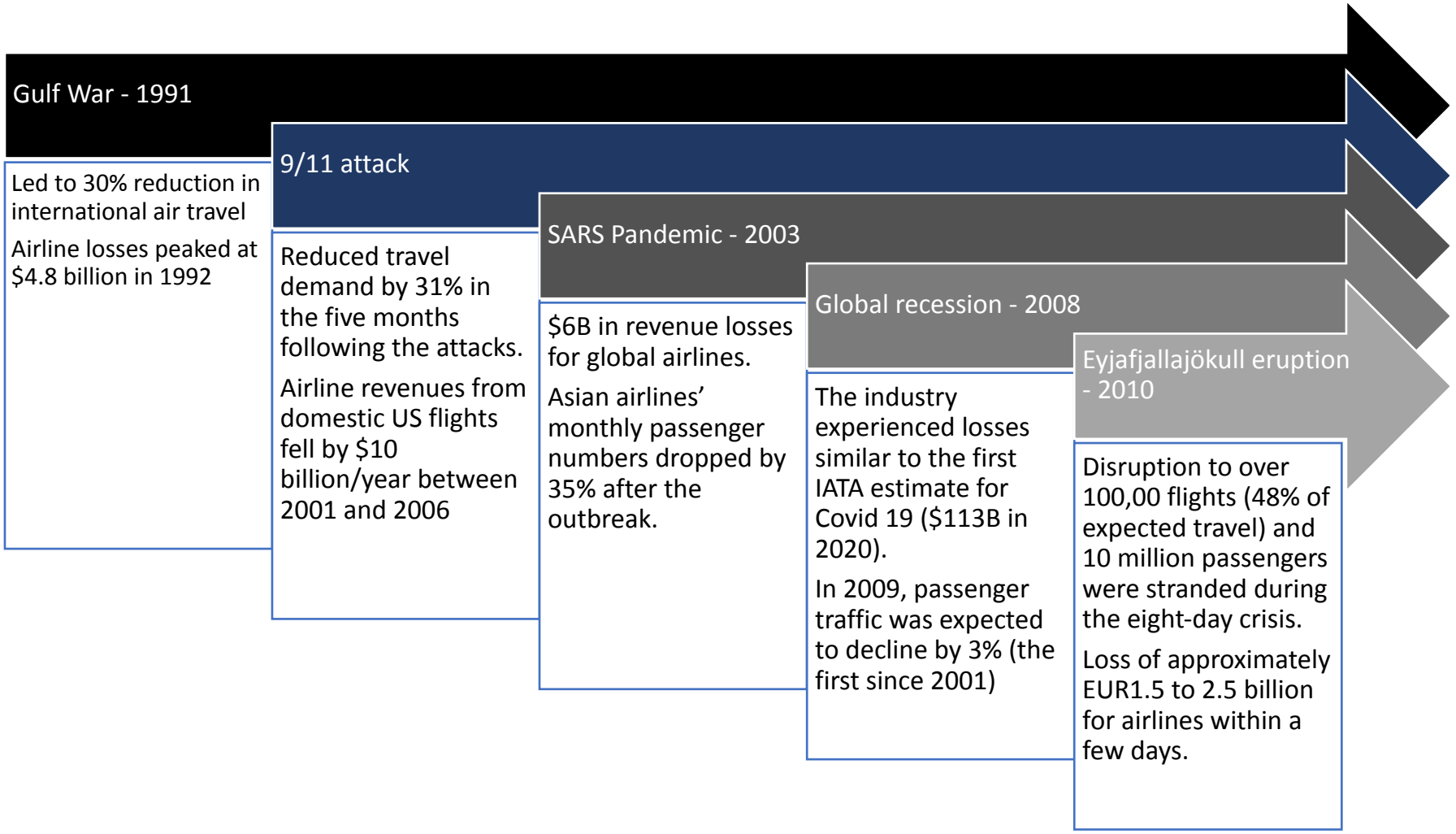
Disruption?

Exercise: Identify one example of truly major event that has disrupted aviation over the last 30 years

- Your own perception – no right or wrong answers.

We will tally the answers up – live and compare with the list given by IATA.

Example recent past events (Global)



Exercise 3: Threat identification

Image source: https://vietnamenews.vn

Disruption?

Exercise: Identify one example of a local cause or situation that would disruption to your part of the business

- Your own perception – no right or wrong answers.

Business Disruption	Cause	Effect
Acute disruption		
Chronic disruption		
Business impact		
Emergency		

We will go around to discuss each of the answers up

Up next: Requirements and Guidence

ICAO states:

“Aviation is a sensitive industry, which requires careful and meticulous planned operations, because any direct or indirect disruption could have significant and far-reaching adverse impacts. Such disruptions can stem from an aircraft, airport and air navigations emergencies, natural disasters or other causes, including public health crises, and the impacts include significant financial, environmental, social and/or material damage, which may have a spill-over effect to inter-connected industries such as tourism and trade.”

ICAO states:

"Appropriate immediate and coordinated actions in response to emergencies and disruptions can significantly mitigate the severity of their impacts. It is therefore critical that stakeholders involved in air transport operations have in place emergency response and contingency plans (ERP) to ensure a rapid response and swift restoration and return to operations. An ERP is a comprehensive, operational-level document outlining specific roles, set of actions and timeframes to respond to unexpected situations, disruptions or potential disruptions."

ICAO states:

"*Appropriate immediate and coordinated actions* in response to emergencies and disruptions can significantly *mitigate the severity of their impacts*. It is therefore critical that stakeholders involved in air transport operations have in place emergency response and contingency plans (ERP) to ensure a rapid response and swift restoration and return to operations. An ERP is a comprehensive, operational-level document outlining specific roles, set of actions and timeframes to respond to unexpected situations, disruptions or potential disruptions."

ICAO states:

"In addition to emergency response and contingency plans, operators are encouraged to develop business continuity plans (BCP), which go beyond the immediate mitigation plans for unplanned incidents. The objective of BCPs is to build and improve organizational resilience and the capability to recover quickly and effectively from any local, regional or global disruption."

ICAO:

ICAO, has published Standards and Recommended Practices (SARPs) for the safety, efficiency and regularity of international civil aviation, to address the necessity and importance of emergency response planning and coordination for various stakeholders of the aviation system.

Other international organizations, including Airports Council International (ACI), International Air Transport Association (IATA) and the Civil Air Navigation Services Organization (CANSO), have also published documents and manuals with guidance and best practices to support their respective stakeholders in establishing emergency response and contingency plans."

ICAO - SARPs

The International Civil Aviation Organization (ICAO), in its capacity to develop Standards and Recommended Practices (SARPs) for the safety, efficiency and regularity of international civil aviation, has published specific SARPs to address the necessity and importance of emergency response planning and coordination for various stakeholders of the aviation system.

These are included in the following Annexes to the Chicago Convention (as applicable to airlines):

ICAO

ICAO Annex	Section / Chapter	Relevant Text
Annex 1 *Personnel Licensing*	No specific chapter	Different parts of the Annex describe the necessity for personnel to have knowledge and/or experience of emergency procedures, most often pertaining to technical and operational emergencies.
Annex 19 *Safety Management*	**Appendix 2** *Framework for a safety management system (SMS)*	*1.4. Coordination of emergency response planning* *The service provider required to establish and maintain an emergency response plan for accidents and incidents in aircraft operations and other aviation emergencies shall ensure that the emergency response plan is properly coordinated with the emergency response plans of those organizations it must interface with during the provision of its products and services*

IATA guidance covers

Chapter 1 - Organization and Management–Emergency Response Structure of an Air Carrier

Chapter 2 - Corporate Emergency Response Manual

Chapter 3—Command and Control

Chapter 4—Telephone Enquiry Centers

Chapter 5—Humanitarian Response

Chapter 6—Go Teams

Chapter 7—Crisis Communications

Chapter 8—Emergency Response Drills and Exercises

Chapter 9—Mutual Assistance Agreements

Recap

- The fundamentals of BCM
  - The nature of disruption
  - Past examples
  - ICAO Requirements
  - IATA guidance

- Developing a BCM framework
- Management of events
- Risk mapping the business
- Applying the process across the Group
- Recap course content

Image source: https://vietnamenews.vn

Up next: Slide Pack 2

Image source: https://vietnamenews.vn

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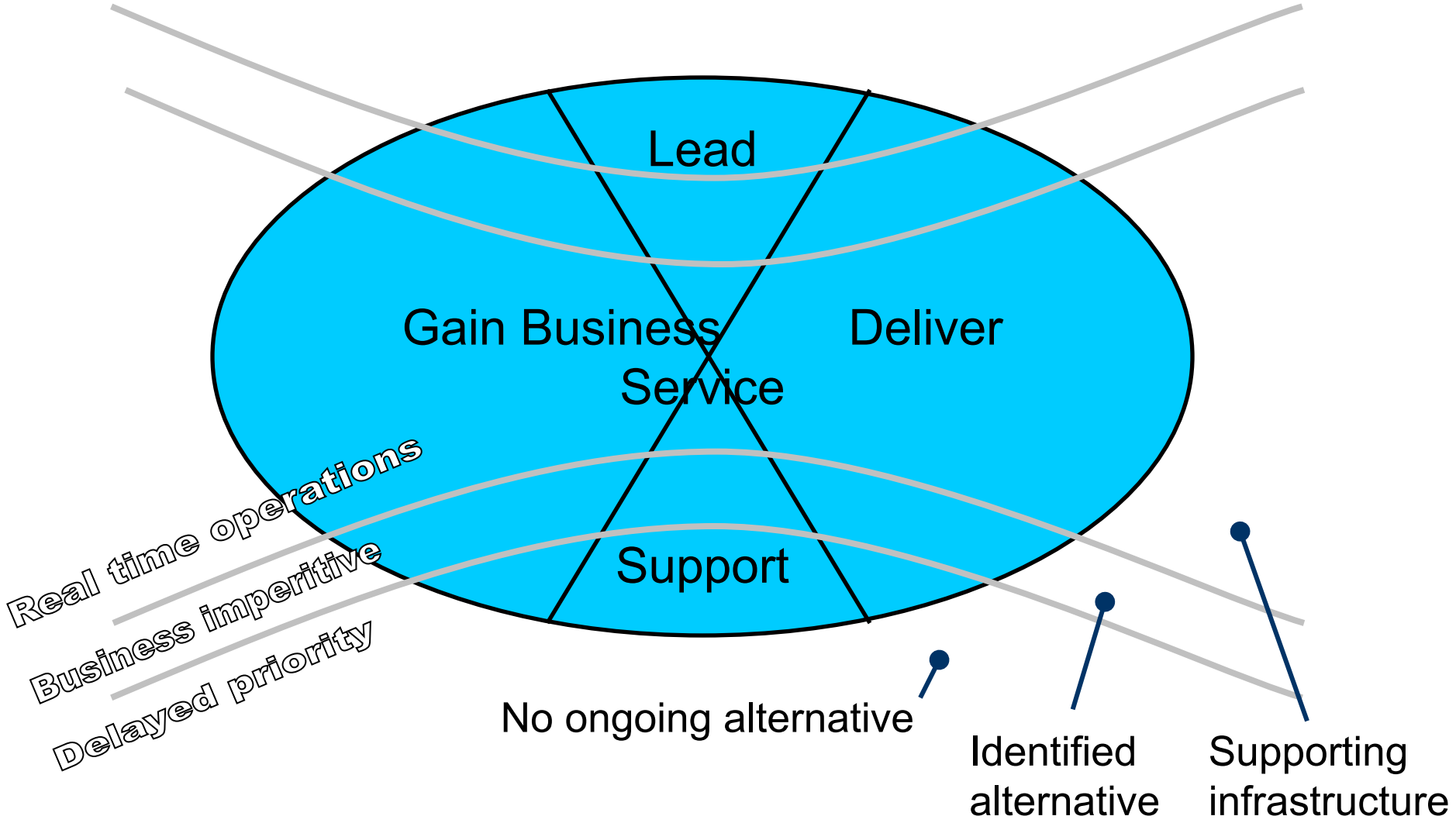
DEVELOPING A BCM FRAMEWORK

Geraint Bermingham

Slide pack #2 of 4

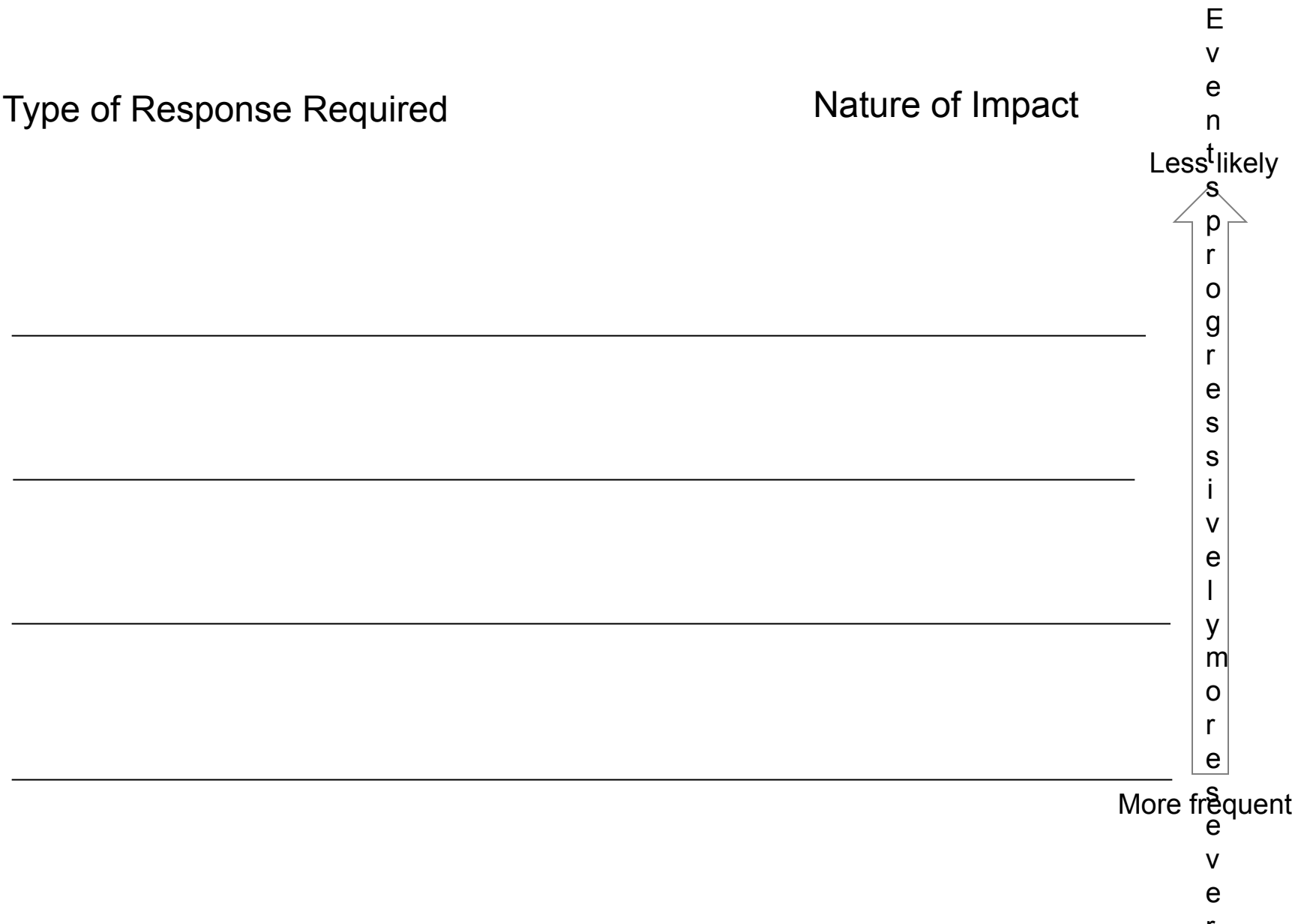
Conceptual Business Model



Nature of Impacts and Types of Response

Type of Response Required	Nature of Impact

Nature of Impacts and Types of Response



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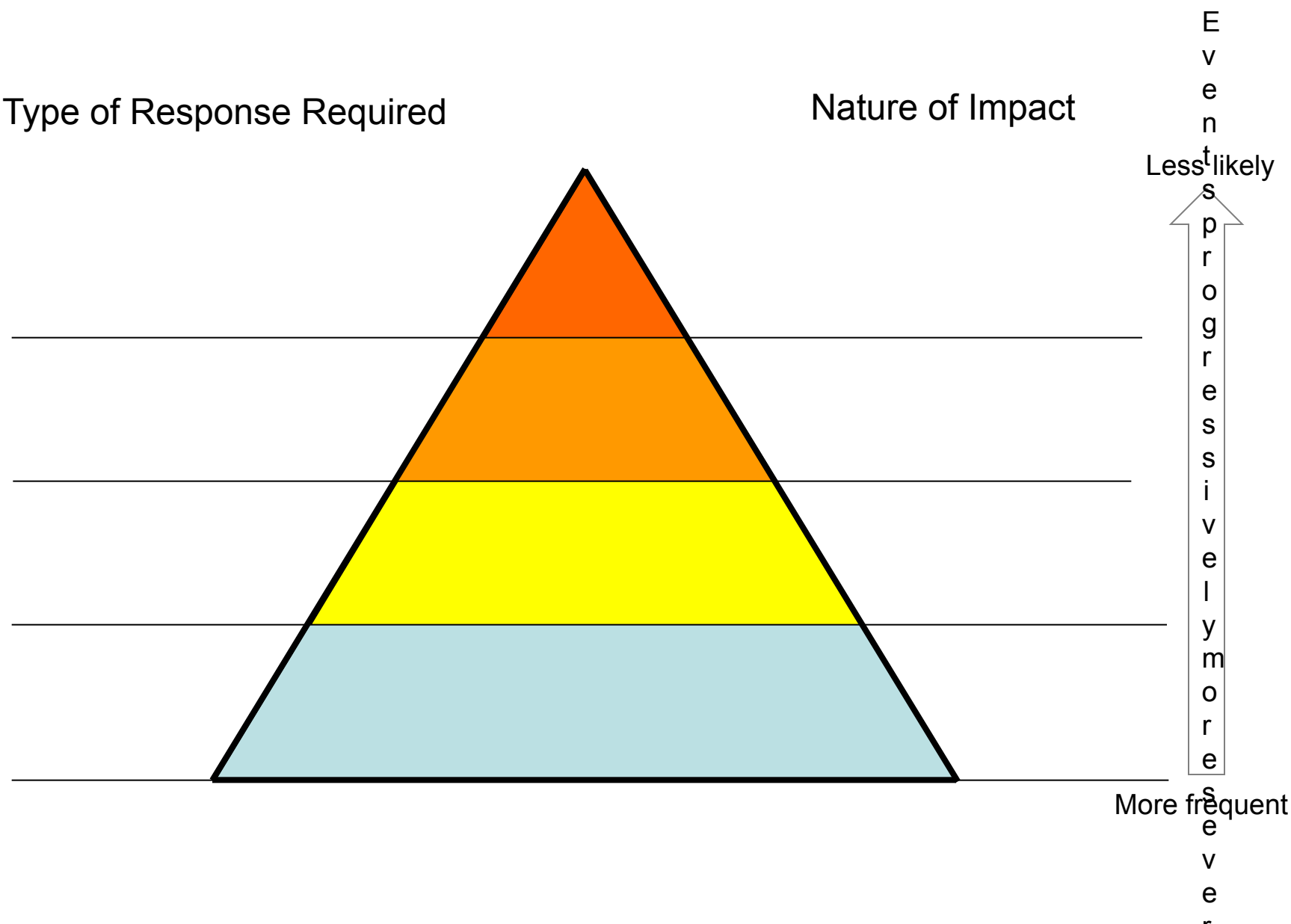

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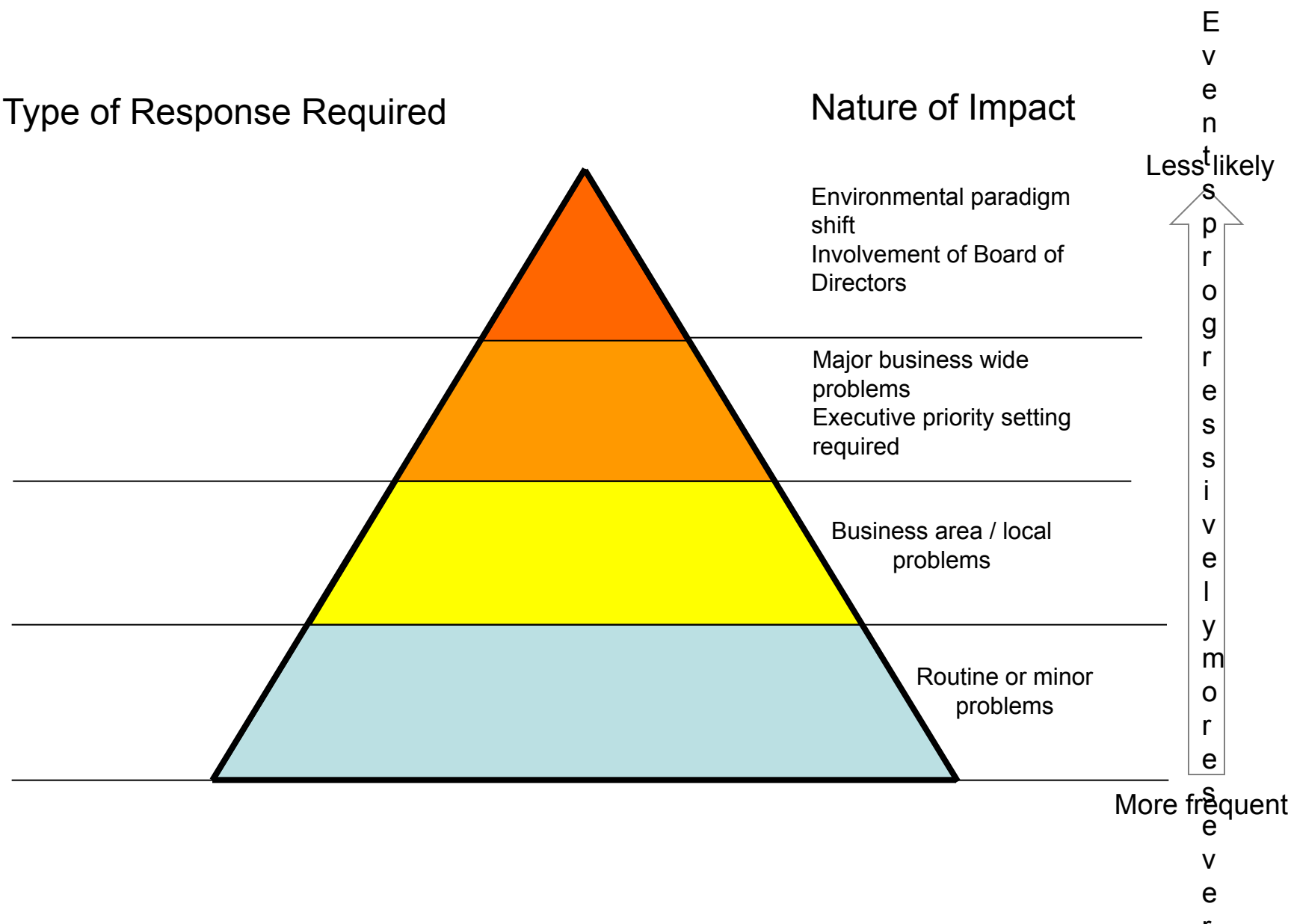

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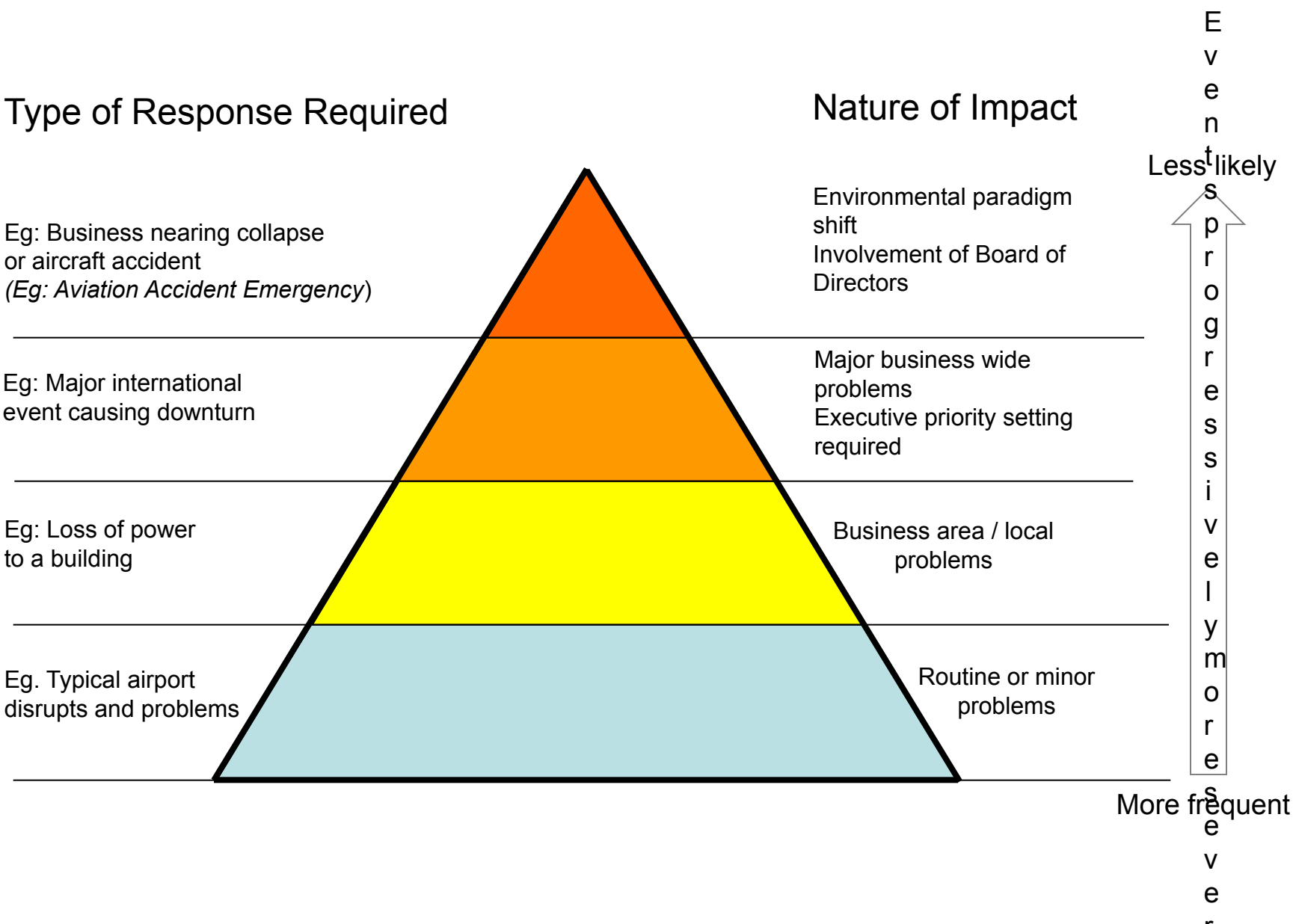

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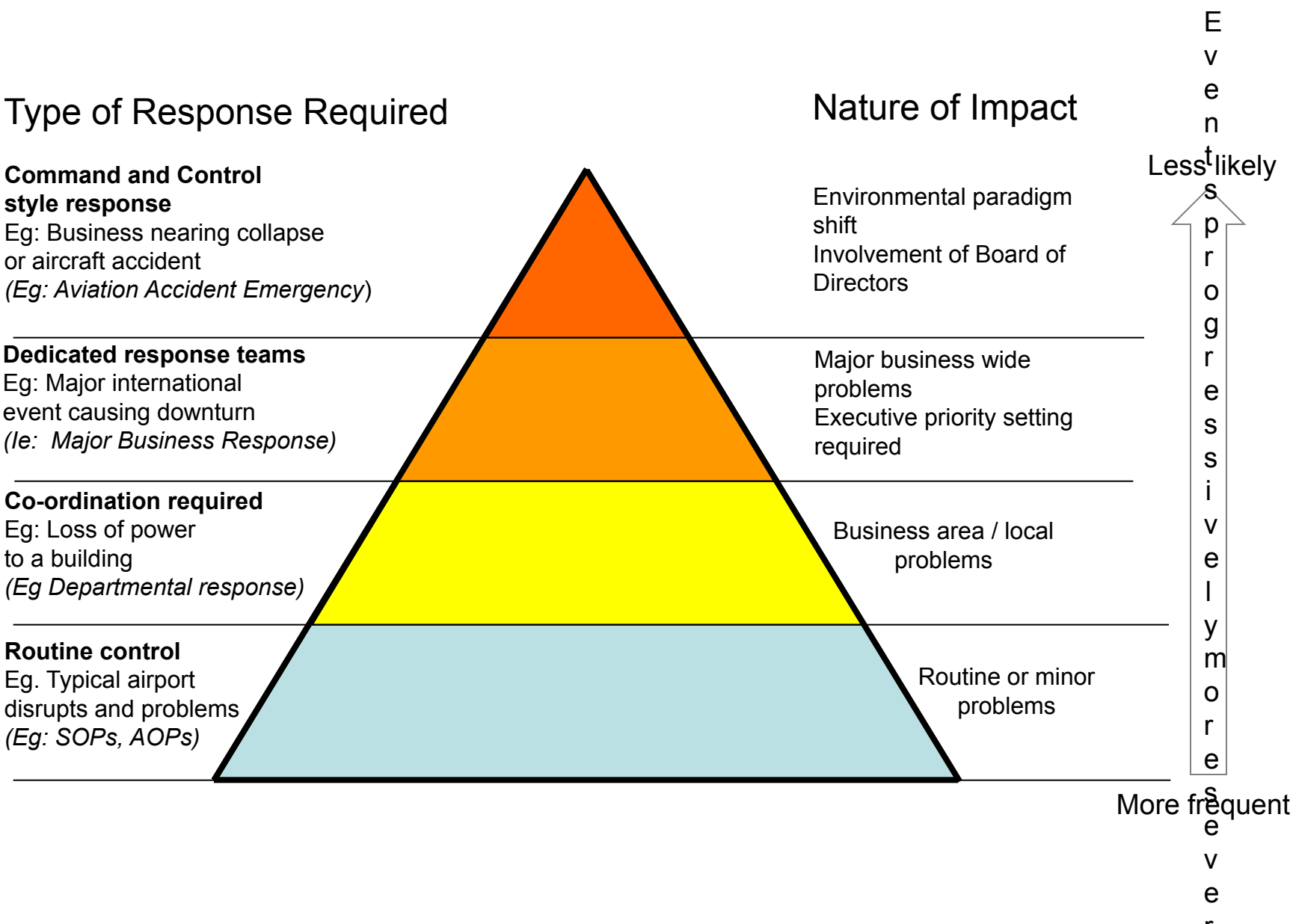

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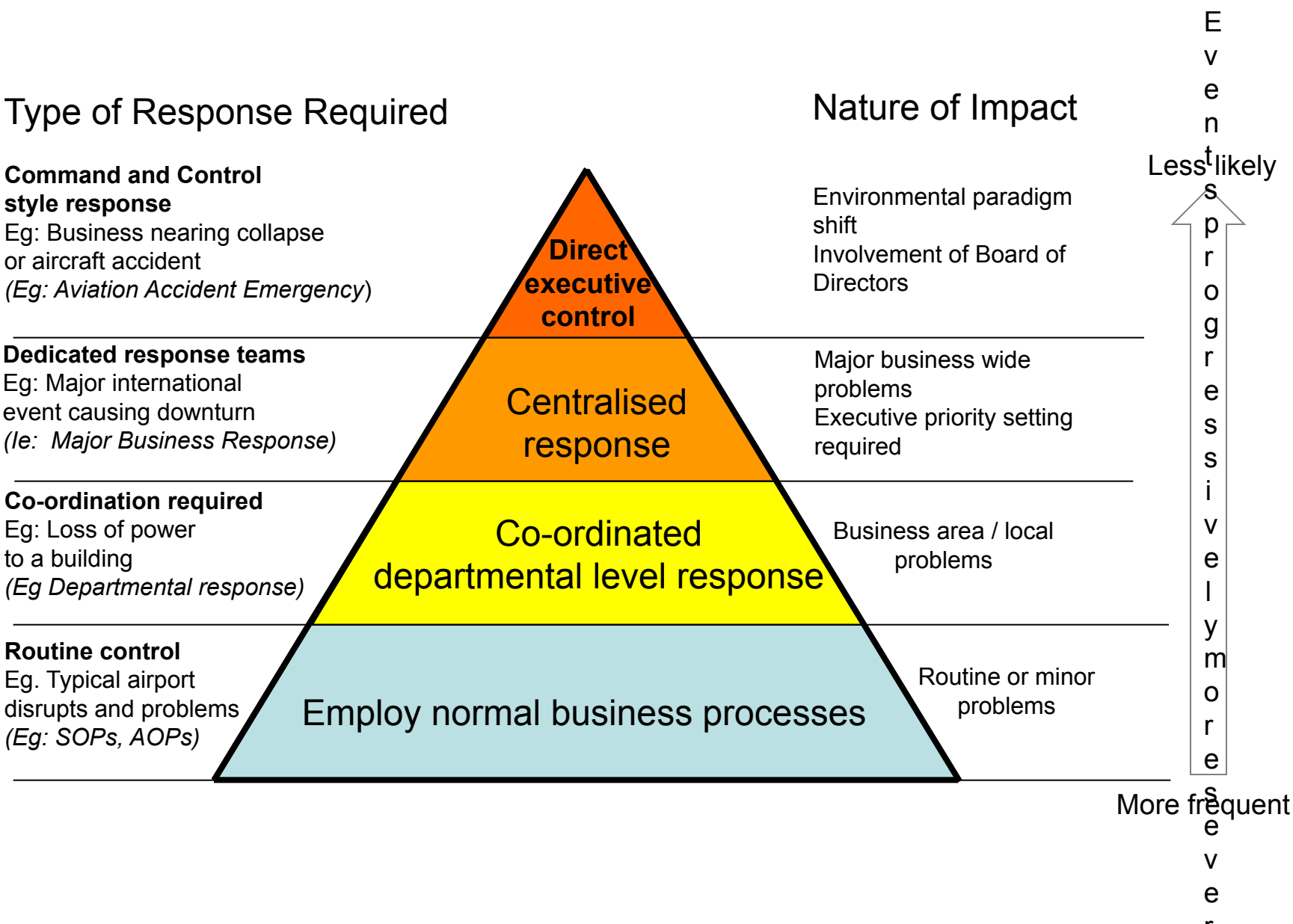

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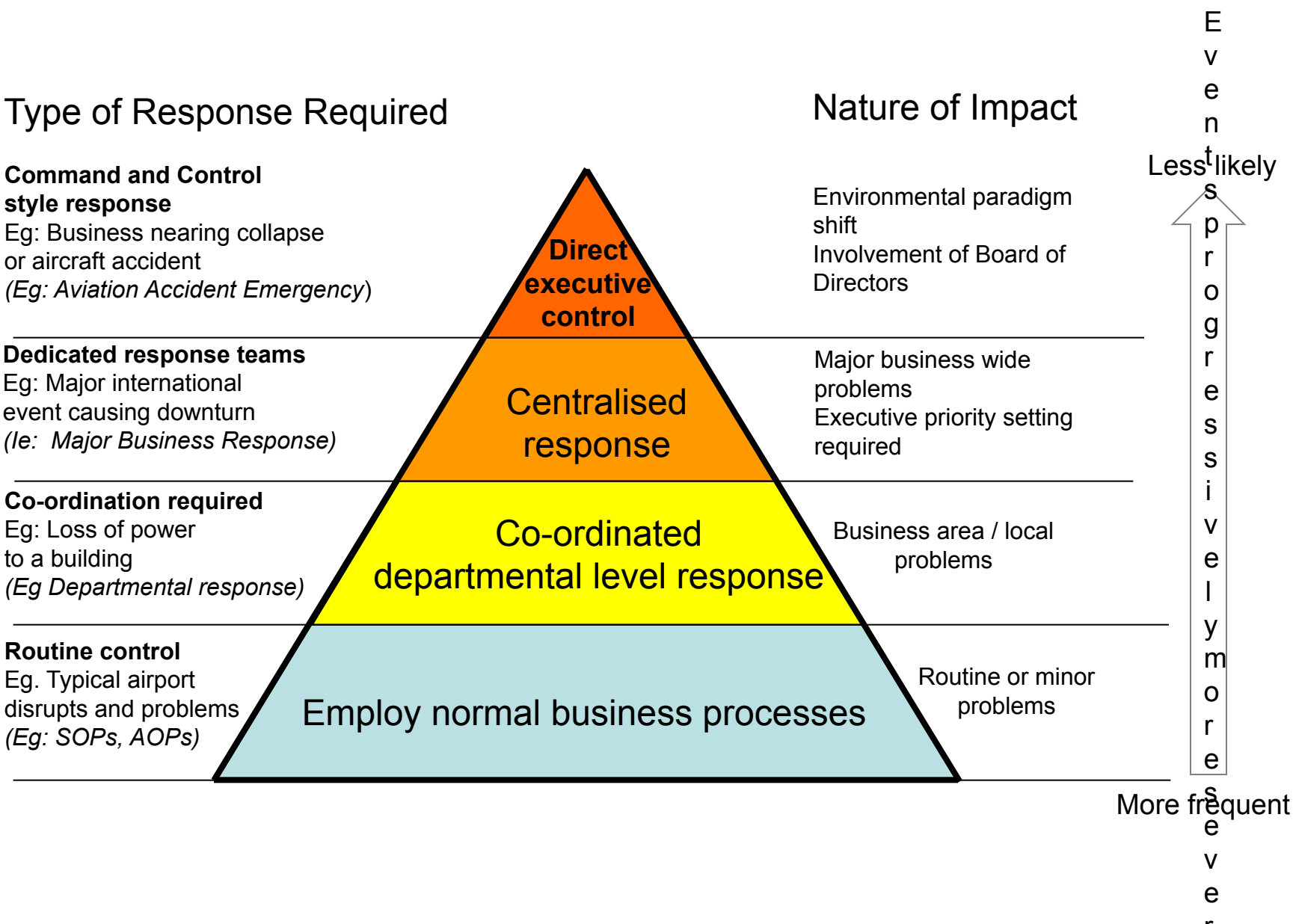


BCM Bench-marking: Deloitte 2005		
BCM Budget Allocation		
Revenue (all industries) US$	Average BCM Budget / FTE	
< $10M	$1,741,667	0.8 - 5
$ 10M - $ 50M	$1,507,813	0.8 - 5
$ 50M - $ 100M	$1,444,444	0.8 - 5
$ 100M - $ 500M	$2,869,792	5.0
$ 500M - $ 1B	$3,485,714	5.0
$ 1B - $ 5B	$7,200,980	8.0
$ > $5B	$17,620,000	8.6

Incident rapid-response areas

- Workplace Emergency Management (National laws)
- Industrial Site Emergency Response (National laws)
- Aviation Emergency Management (ICAO requirement)
- Business continuity planning BCP)
- IT Disaster Recovery (ITDR)

1. Each department understands the detail
2. Simple in concept

eporting
wnership
ially confusing
istent response goals and standards
step with aviation best practice
ent

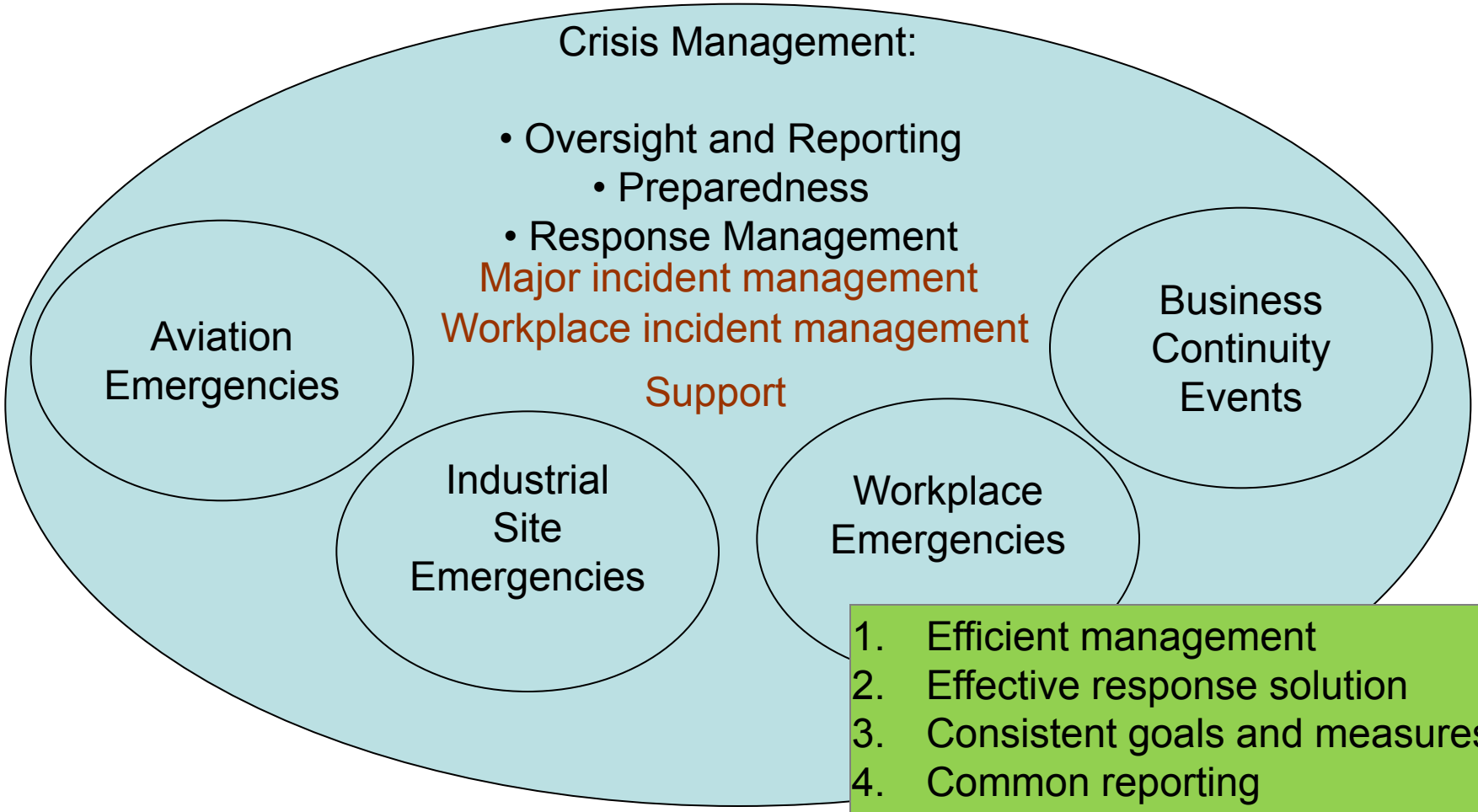
Notes:
- All are risk management functions
- Similar skill sets and focus
- All require 24 x 7 cover

Comparing the 4 R's (current)

	Reduction	Readiness	Response	Recovery
Aviation emergencies	Operational standards	Plan (GEMM) Training Exercises Response team	CP GECC IATA C&C	Business recovery NOK/crew support Brand mgnt
Site emergencies	Facilities management Work practice	Plans (AOP) Training Exercises Shift management	Shift manager Crash fire GECC? C&C	Business recovery Staff support Brand mgnt
Workplace emergencies	Building and workplace management	Plans (OSH) Education Exercises Wardens	Warden Civil agencies GECC? Oversight	Business recovery Staff support Brand mgnt
Business continuity	Risk profiling Process protection	Plans (BCPs) Communication Exercises Dept managers	Mng Continuity Dept Managers GECC? Coordination	Business recovery Staff support Brand mgnt
Comparisons	• *Different skills and focus* • *Common reporting?*	• *Similar preparation* • *Different onsite staff*	• *Different onsite management* • *Similar oversight*	• *Common aim*

Combined Model

- Can combine the BCP and Emergency functions and other currently distributed responsibilities to form a focused team responsible for incident 'preparedness and response' – A Crisis management Team



1. Efficient management
2. Effective response solution
3. Consistent goals and measures
4. Common reporting
5. Consistent with aviation practice

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BUSINESS CONTINUITY MANAGEMENT (BCM)

RISK, READINESS RESPONSE AND RECOVERY

Geraint Bermingham

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Slide pack #3 of 4

The objective of this training course is:

To develop a good working level understanding of business continuity management and planning as applicable to all parts of a full service airline group and to form the foundation for the development of core expertise in business continuity management.

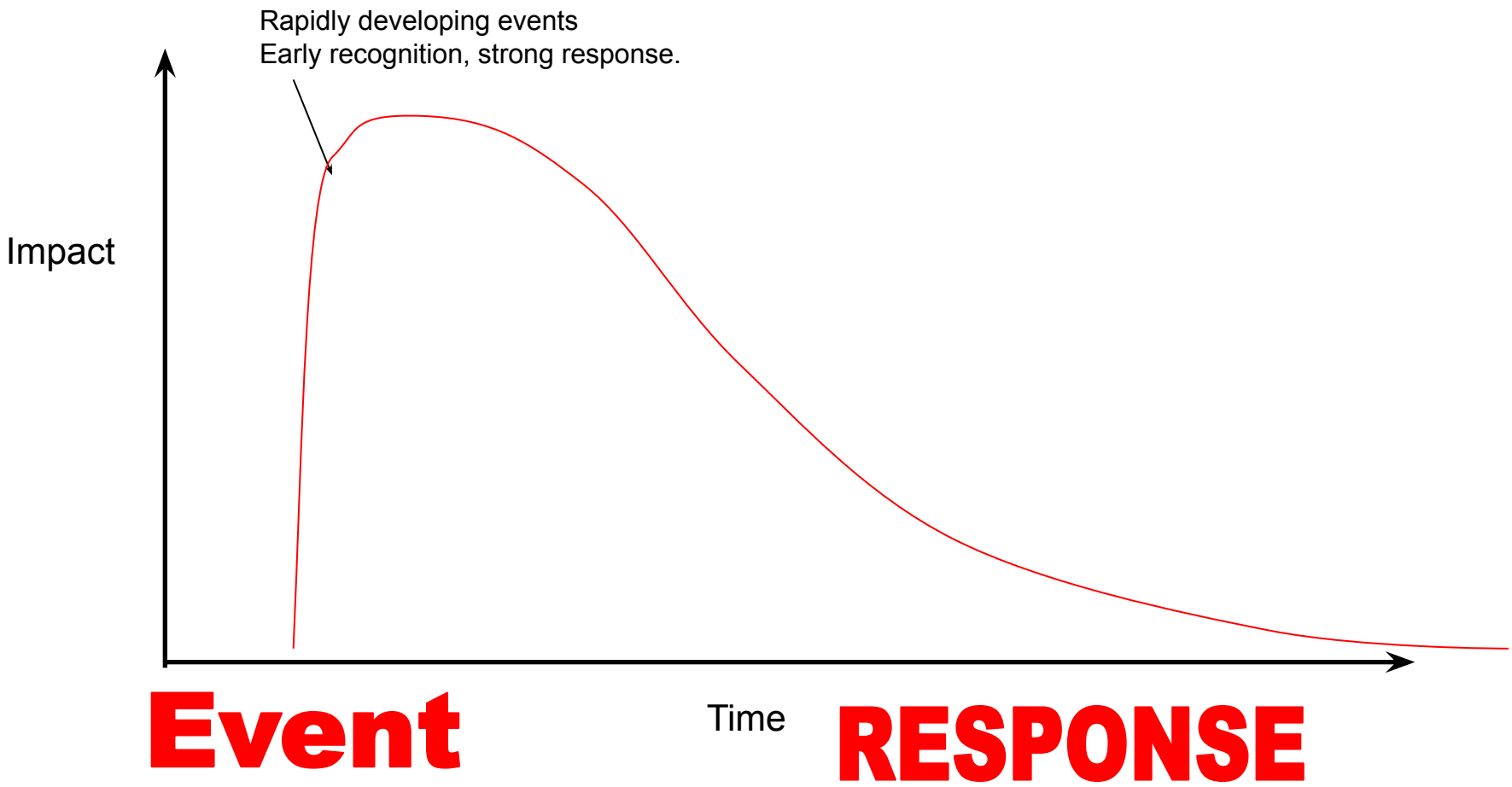
Agenda

- The fundamentals of BCM
  - The nature of disruption
  - Past examples
  - ICAO Requirements
  - IATA guidance

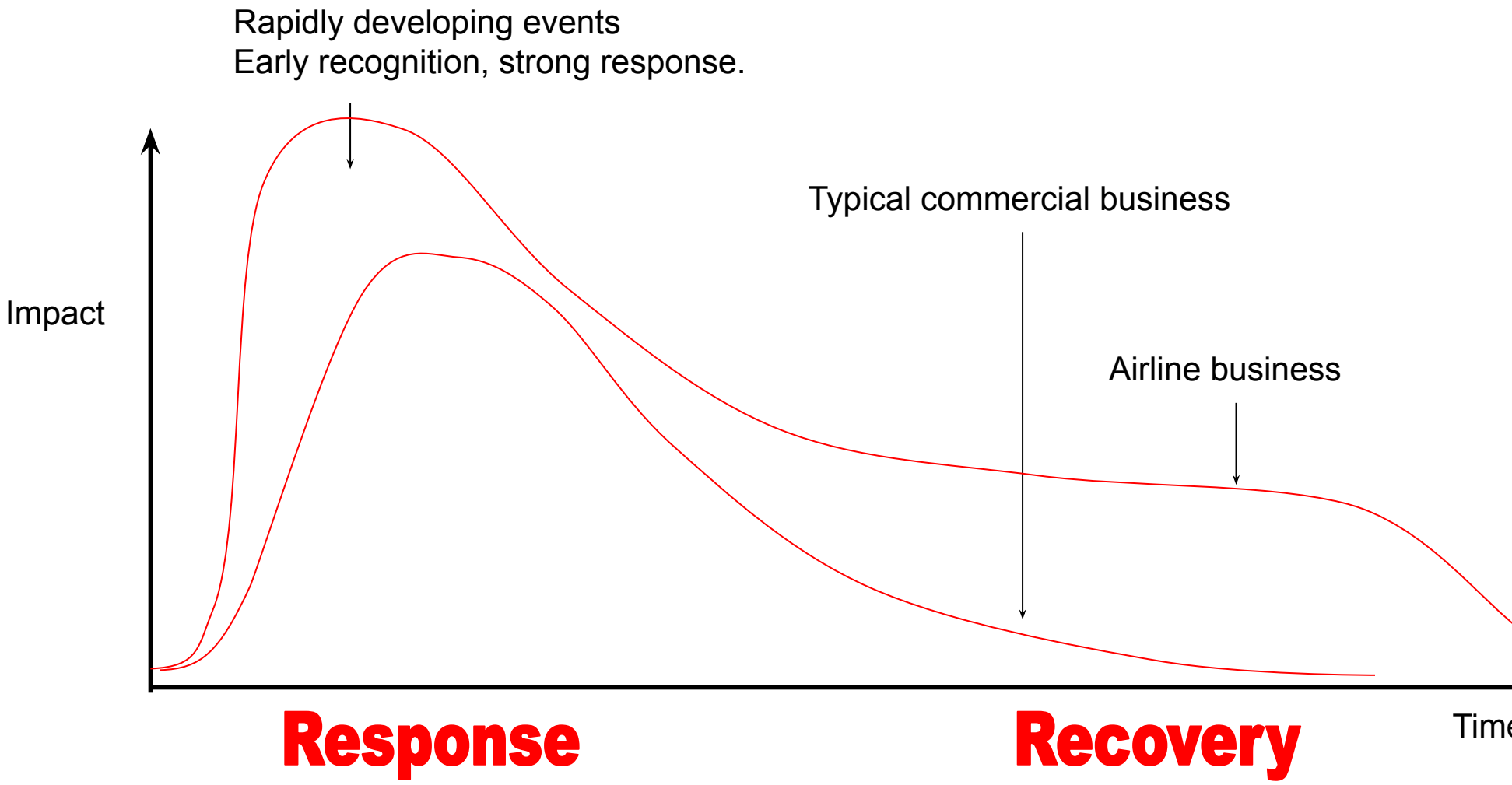
- Developing a BCM framework
- Management of events
- Risk mapping the business
- Applying the process across the Group
- Recovery

BCM - The 4 phases

Simple “BCP” thinking



Disruption impact time line



The 4 phases of BCM

	Risk Reduction	Readiness	Response	Recovery
Aviation emergencies	Operational standards	Plans Training Exercises Response teams	Airline emergency centre IATA Command & Control	Business recovery NOK/crew support Brand management
Site emergencies	Facilities management Work practices	Plans Training Exercises Shift management	Shift manager Crash fire Airline emergency centre Command & Control	Business recovery Staff support Brand management
Workplace emergencies	Building and workplace management	Plans Education Exercises Wardens	Wardens Civil agencies Management oversight	Business recovery Staff support Brand management
Business continuity	Risk profiling Process protection	Plans (BCPs) Communication Exercises Dept managers	Manager BCM Dept Managers Coordination	Business recovery Staff support Market recovery Brand management
Comparisons	• *Different skills and focus* • *Common reporting?*	• *Similar preparation* • *Different onsite staff*	• *Different onsite management* • *Similar oversight*	• *Common aim*

Up next: Introduction to Risk Assessment

Introduction to ISO 31 000: 2018

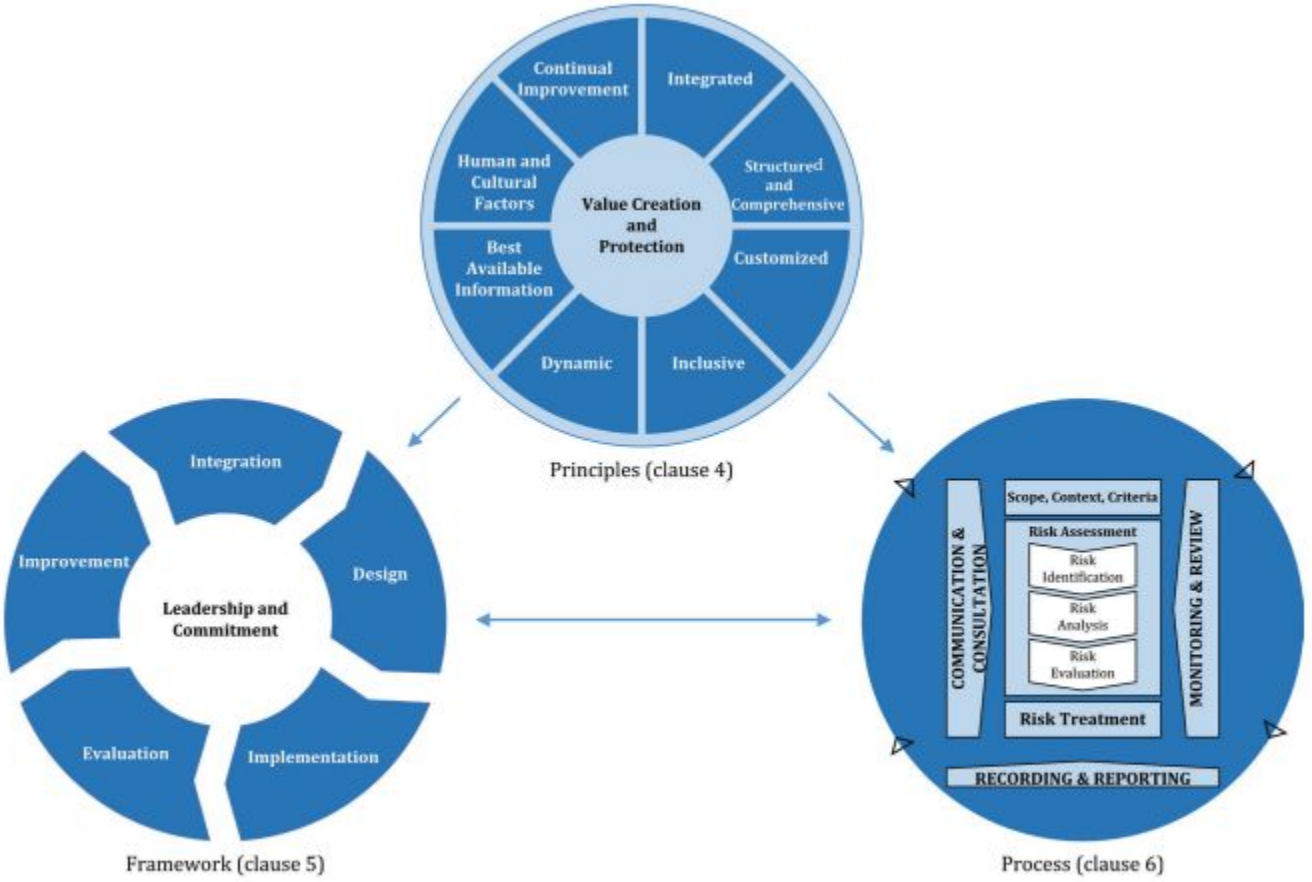


Figure 1 — Principles, framework and process

Introduction to ISO 31 000: 2018

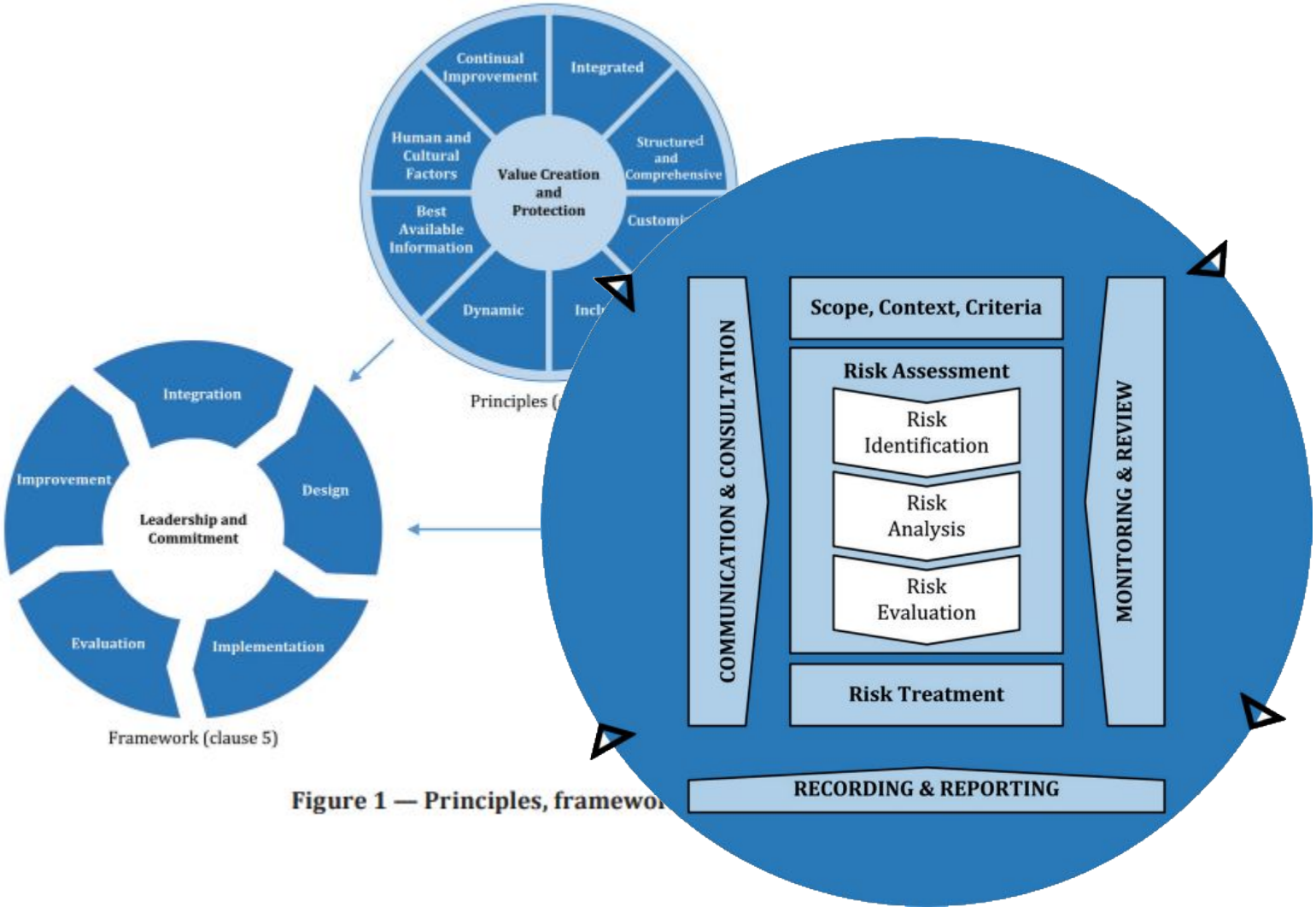
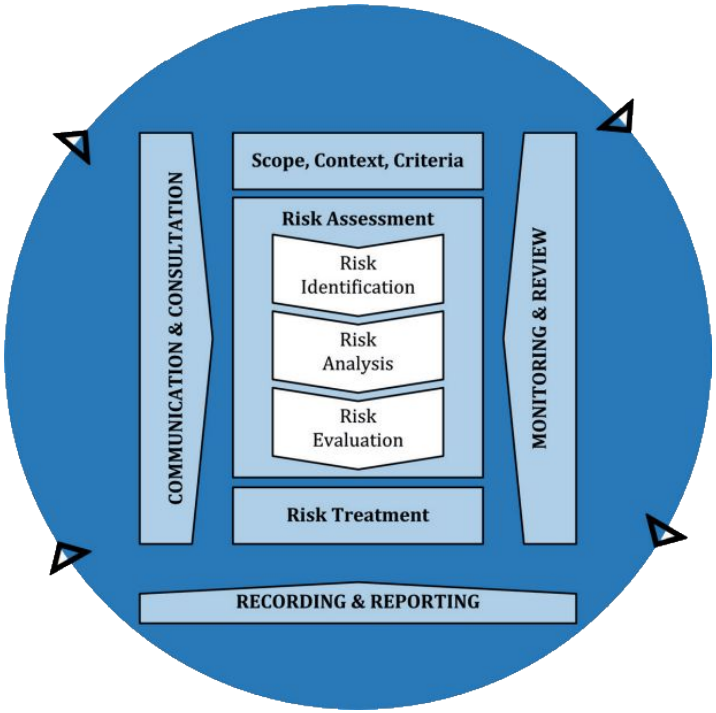


Figure 1 — Principles, framewo

Applying the Process in your department

- Theory
- Applying the Process
- Identifying risk across the Group



Using a simple Risk Rating

	Likely (3)	Pos (2)	UnL (1)
High (3)	High (9)	High (6)	Medium (3)
Med (2)	High (6)	Medium (4)	Low (2)
Low (1)	Medium (3)	Low (2)	Low (1)

Keeping it simp

Red = 8

Orange = 4

Green = 2

Risk Mapping – Infrastructure failure (example)

OFFSHORE AIRPORT LOCATIONS								
Region	Code	Location	Natural Hazard Profile	Potential Failure of Infrastructure	Potential civil unrest	Terrorist event	Potential Impact to Schedule	Overall score
AMERICA	HNL	Honolulu	H	L	L	M	M	
AMERICA	LAX	Los Angeles	H	L	M	L	L	
AMERICA	SFO	San Francisco	H	L	L	L	L	
ASIA	HKG	Hong Kong	M	L	M	L	H	
ASIA	KIX	Osaka (Kansai)	H	L	L	L	M	
ASIA	NGO	Nagoya	H	L	L	L	M	
ASIA	NRT	Tokyo (Narita)	H	L	L	L	H	
ASIA	SIN	Singapore	L	L	L	L	H	
ASIA	TPE	Taipei	M	L	L	M	M	
AUSTRALIA	BNE	Brisbane	L	L	L	L	L	
AUSTRALIA	CNS	Cairns	L	M	L	L	L	
AUSTRALIA	MEL	Melbourne	L	L	L	L	L	
AUSTRALIA	SYD	Sydney	L	L	L	L	M	
EUROPE	LHR	London	L	L	L	H	L	

Up next: Risk Mapping Exercise

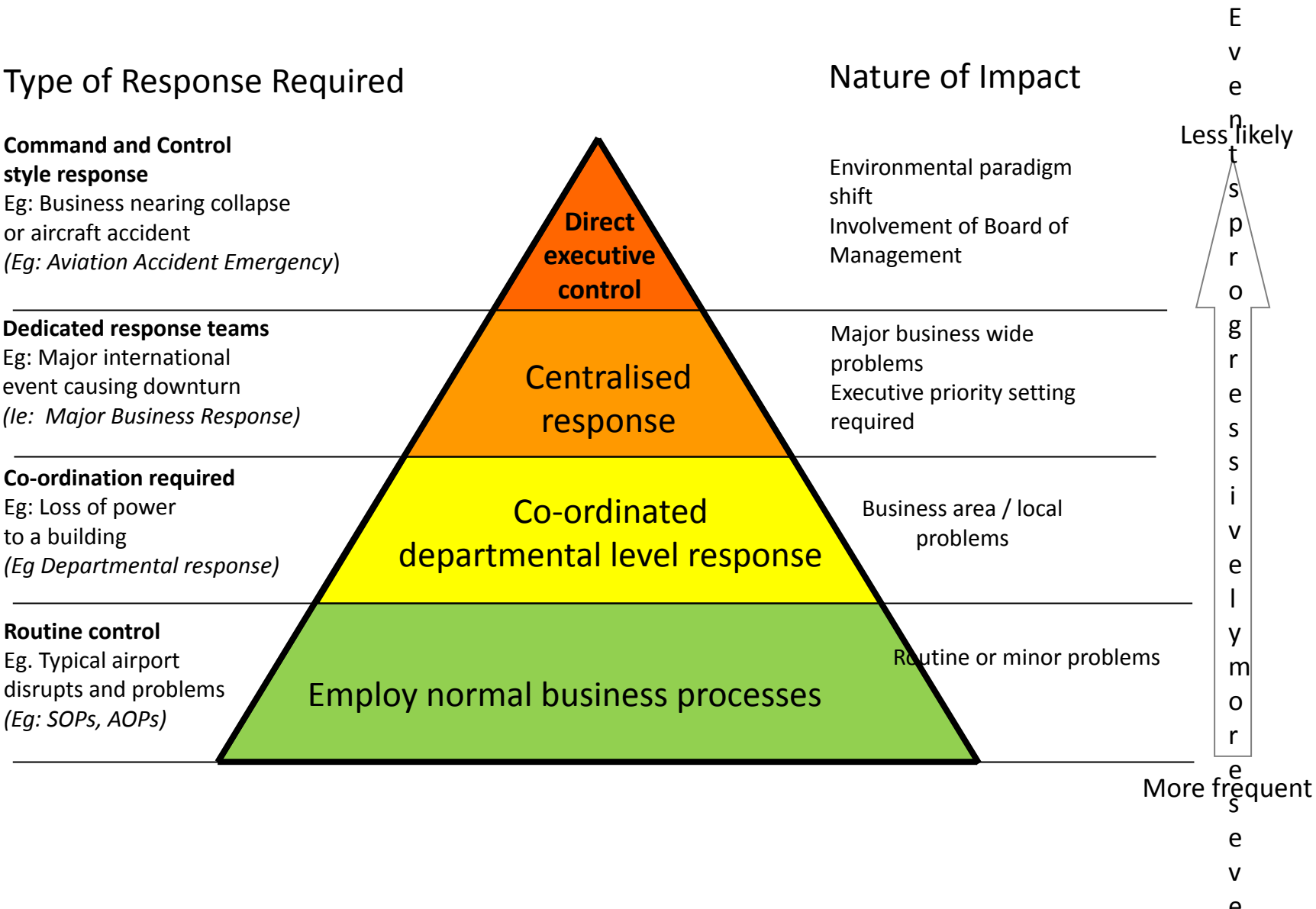
Risk Mapping – Infrastructure failure (exercise)

OFFSHORE AIRPORT LOCATIONS								
Region	Code	Location	Natural Hazard Profile	Potential Failure of Infrastructure	Potential civil unrest	Terrorist event	Potential Impact to Schedule	Overall score
HANOI								
HO CHI MINH CITY								
CAM RANH								
PHNOM PENH								
SINGAPORE								
TOKYO								
SAN FRANCISCO								
SYDNEY								
PARIS								

	Likely (3)	Pos (2)	UnL (1)
High (3)	8	8	4
Med (2)	8	4	2
Low (1)	4	2	2

Up next: Thinking about Readiness

Nature of Impacts and Types of Response



Response Initiation and communications

Initial Assessment Team

Group Emergency Management Team

Major Business Disruption Response Plan

Business Continuity Plans

Standard Operating Procedures

Operations Response Team

Business Response Team

Up next: Example and resources

Case Study – Airline Operations

Objective;

To create a local alternative site for the critical functions that are carried out within the operations centre.

Critical Functions;

- Operations Delivery,
- Flight Despatch,
- Maintenance Watch,
- Navigation Services,
- Aircraft Performance,
- Ground Operations,
- Group Emergency Control Centre.

Up next: Readiness Exercise

Pandemic Readiness – Group Exercise

Exercise: Within your workshop group, discuss and describe readiness arrangements:

1. In your part of the business (if any).
2. How these could be changed, or
3. What may work best?

Feature	Existing	Simple solution	Best solution
Risk reduction			
Communication of disruption			
Readiness arrangements			
Team up with?			

We will tally each of the answers up

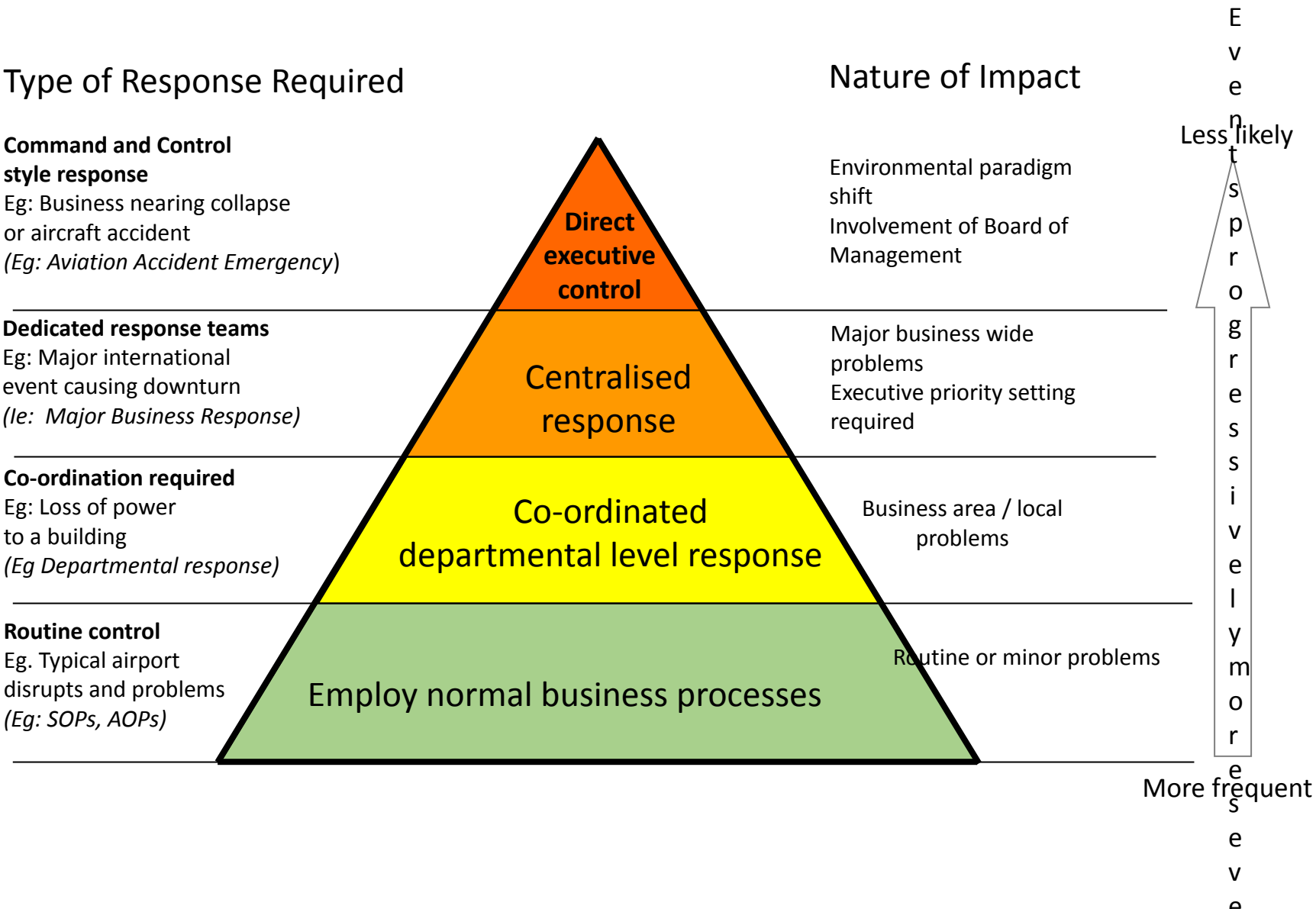
Pandemic Readiness - Exercise

Exercise: Results

Feature	Existing	Simple solution	Best solution
Risk reduction			
Communication of disruption			
Readiness arrangements			
Team up with?			

Up next: Thinking about Response

Nature of Impacts and Types of Response



Response Initiation and communications

Initial Assessment Team

Group Emergency Management Team

Major Business Disruption Response Plan

Business Continuity Plans

Standard Operating Procedures

Operations Response Team

Business Response Team

Up next: Response Exercise

Response – Group Exercise

Exercise:
Break up into 3 or 6 groups:

1. Operations Response Team
2. Business Response Team

Consider how you would respond to each of the following:

Feature	First actions	Priorities as event unfolds	Information required	Information supplied (Internal) What and who?	Information supplied (external) What and who?
Major power outage (Hub)					
Central IT outage					
Extreme weather					
Report of terrorist act affecting a VNA aircraft and PAX					

We will discuss answers up

Response – Group Exercise

Exercise Part : Results discussion

Feature	First actions	Priorities as event unfolds	Information required	Information supplied (Internal) What and who?	Information supplied (external) What and who?
Major power outage (Hub)					
Central IT outage					
Extreme weather					
Report of terrorist act affecting a VNA aircraft and PAX					

Up next: Thinking about Recovery

Recovery phase

Disruptions to the Canadian airline industry

(Percentages indicate year-over-year changes)

2001 – September 11 events in the United States

A sudden 26.0% drop of passengers followed by a gradual recovery.

2003 – SARS (severe acute respiratory syndrome) outbreak

A gradual decline of passengers reaching a 26.0% decrease in May, followed by a gradual recovery.

2020 – COVID-19 pandemic

A steep decline, initially falling to 97.0% fewer passengers than the previous year.

Source: Monthly Civil Aviation Survey (5026), table 23-10-0079-01.

CATHAY PACIFIC

Volver a historias

Cathay Pacific honoured for showing leadership during SARS

Miércoles 5 de noviembre de 2003 —

Cathay Pacific Airways was last night honoured by the travel industry for demonstrating outstanding leadership and initiative in efforts to help Hong Kong and the region recover from the effects of SARS.

"Cathay Pacific got up-and-running, but not just to protect itself," the TTG Honours citation said. "It shows acceptance of losses as part of doing business – but also that the bigger loss may be to lose the respect and goodwill of one's home base if one does not carry oneself well during a crisis."

"Cathay Pacific drove many ingenious initiatives
TTG also credited Flying Without Fear, "a communications drive to bust the fear of air travel,"

Change Point = Opportunities

危機
危机

Reference: Civil Air Navigation Services Organisation (CANSO)

Up next: Pandemic Recovery Exercise

Pandemic Recovery – Group Exercise

Exercise Part 1: Within your workshop group, discuss and describe the post-pandemic scenarios.
(How will the general situation evolve as the threat recedes?)

Feature	Worst case	Most likely case	Best case
Time line			
Travel demand (domestic)			
Travel demand (international)			

We will tally each of the answers up

Pandemic Recovery - Exercise

Exercise Part 1: Results

Feature	Worst case	Most likely case	Best case
Time line			
Travel demand (domestic)			
Travel demand (international)			

IATA (July)

https://www.iata.org/en/pressroom/pr/2020-07-28-02/

- **Geneva** - The International Air Transport Association (IATA) released an updated global passenger forecast showing that the recovery in traffic has been slower than had been expected.
- In the base case scenario:
- Global passenger traffic (revenue passenger kilometers or RPKs) will not return to pre-COVID-19 levels until 2024, a year later than previously projected.
- The recovery in short haul travel is still expected to happen faster than for long haul travel. As a result, passenger numbers will recover faster than traffic measured in RPKs. Recovery to pre-COVID-19 levels, however, will also slide by a year from 2022 to 2023. For 2020, global passenger numbers (enplanements) are expected to decline by 55% compared to 2019, worsened from the April forecast of 46%.
- **Weak consumer confidence:** While pent-up demand exists for VFR (visiting friends and relatives) and leisure travel, consumer confidence is weak in the face of concerns over job security and rising unemployment, as well as risks of catching COVID-19. Some 55% of respondents to IATA's June passenger survey don't plan to travel in 2020.

Pandemic Recovery – Group Exercise

Exercise Part 2: Within your workshop group, discuss and describe the post-pandemic recovery challenges and risks.
(as many as you identify)

Feature	People	Processes
Tasks		
Challenges		
Risks		
Other issues		

We will discuss the answers – each group in turn

Pandemic Recovery - Exercise

Exercise Part 2: Results

Feature	People	Processes
Tasks		
Challenges		
Risks		
Other issues		

Pandemic Recovery – Risks seen thus far

Finnair Taxiway Incident Linked To Pandemic-Related Airport Staff Cuts

Sean Broderick November 30, 2021

Credit: Finnair

Inadequate risk assessments and contingency plans following airport staff cuts contributed to a Finnair Airbus A350 skidding partially off a taxiway at Helsinki-Vantaa Airport earlier this year—an incident that spotlights broader risks from rapidly changing airfield operations, Finnish investigators determined.

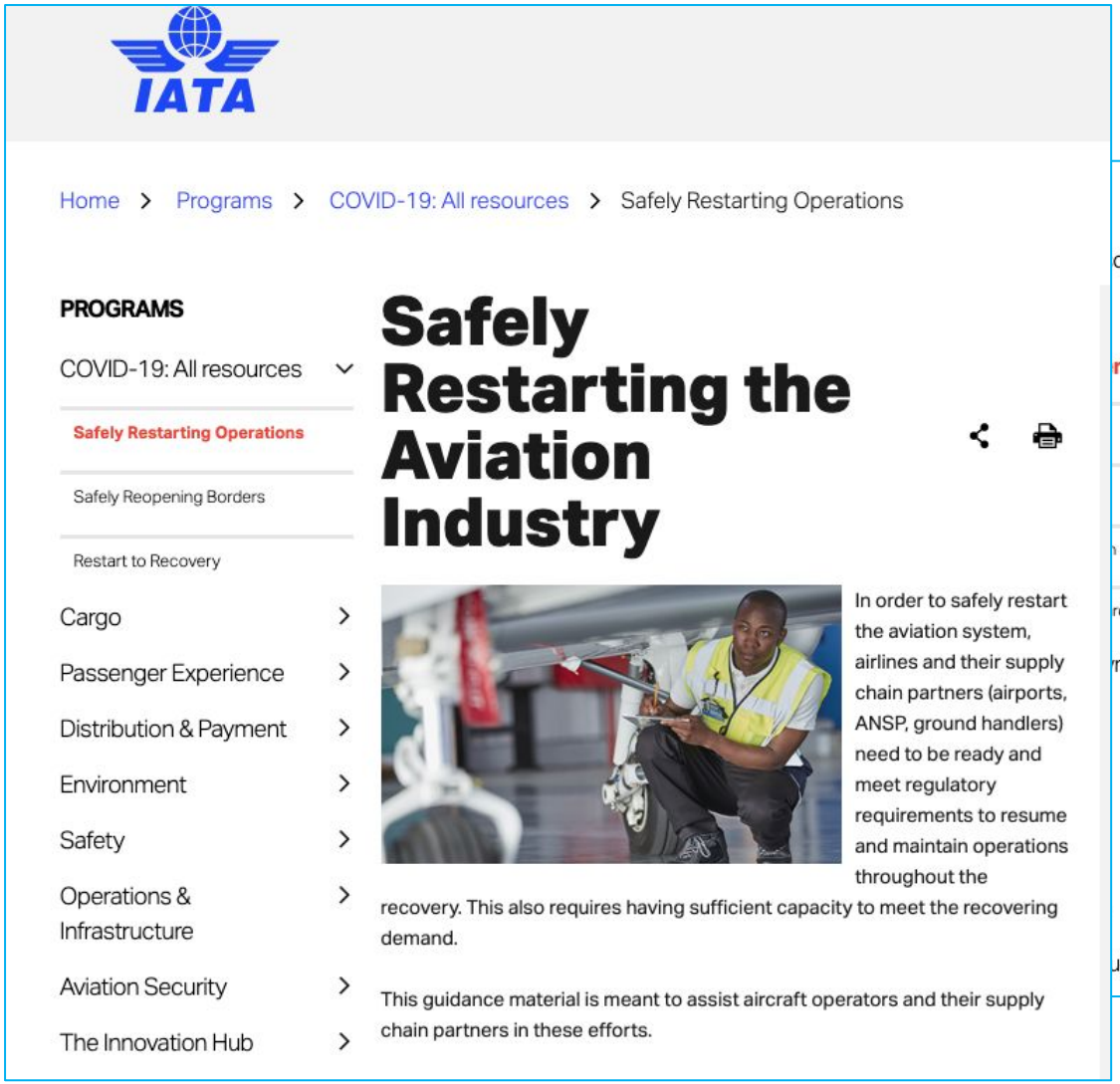
Safety

Qantas 787 unable to retract landing gear after pins left in place

By Alfred Chua | 16 November 2021

Two landing gear pins that were not removed from a Qantas aircraft before it left the gate resulted in the inability to retract landing gear after takeoff, an investigation by the Australian Transport Safety Bureau (ATSB) has revealed.

Guidance



https://www.iata.org/en/programs/covid-19-resources-guidelines/safely-restarting/

Guidance

Home > Programs > COVID-19: All resources > Safely Restarting Operations

PROGRAMS

- COVID-19: All resources
  - Safely Restarting Operations
  - Safely Reopening Borders
  - Restart to Recovery
- Cargo
- Passenger Experience
- Distribution & Payment
- Environment
- Safety
- Operations & Infrastructure
- Aviation Security
- The Innovation Hub

Safely Restarting the Aviation Industry

In order to safely restart the aviation system, airlines and their supply chain partners (airports, ANSP, ground handlers) need to be ready and meet regulatory requirements to resume and maintain operations throughout the recovery. This also requires having sufficient capacity to meet the recovering demand.

This guidance material is meant to assist aircraft operators and their supply chain partners in these efforts.

Aircraft Operators

- Guidance for Managing Aircraft Airworthiness for Operations During and Post Pandemic, Ed.2 (pdf)
- IATA Health Safety Standards Checklist for Airline Operators (link to form)
- IOSA Guidance for Safety Monitoring under COVID-19 Ed.2 (pdf)
- Fill in this form to access the IATA Health Safety Standards Checklist for Airline Operators (pdf)
- Aircraft cleaning & disinfection during & post-pandemic (pdf)
- Guidance for cabin operations during & post-pandemic (pdf) also available in Spanish (pdf)
- Guidance for Flight Operations during and Post Pandemic (pdf)

IATA has launched a service for its member airlines that addresses operational reports, questions and information related to COVID restart operations: COVID Reporting Process for Member Airlines

Ground Operations

Position Paper: Restart of Ground Operations

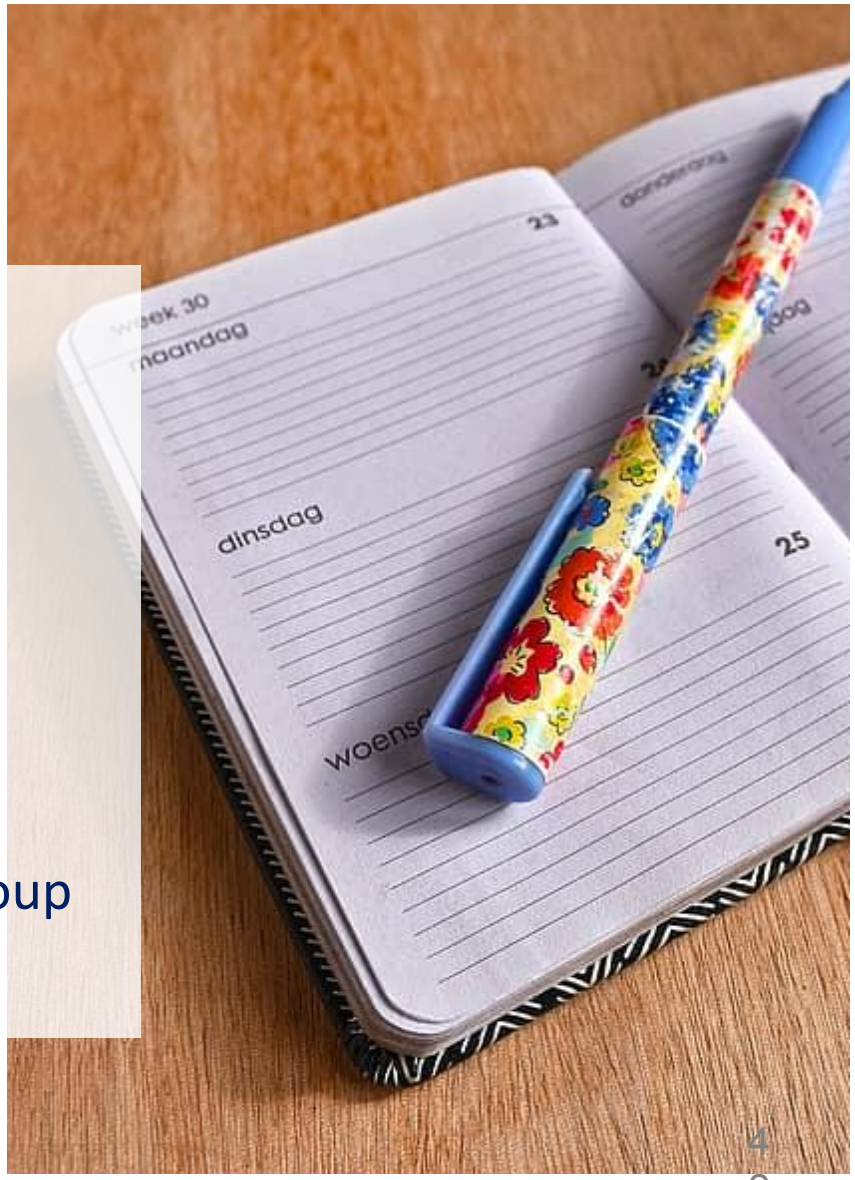
- Ground handling return to service (pdf)
- Guidance for ground handling during COVID-19 (pdf)
- Ground Handling - information about conducting ground operations in time of COVID-19 (pdf)

https://www.iata.org/en/programs/covid-19-resources-guidelines/safely-restarting/

Recap

- The fundamentals of BCM
  - The nature of disruption
  - Past examples
  - ICAO Requirements
  - IATA guidance

- Developing a BCM framework
- Management of events
- Risk mapping the business
- Applying the process across the Group
- Recovery



Up next: Slide Pack 4 (Recap)

Vietnam Airlines
SẢI CÁNH VƯƠN CAO

NAVIGATUS CONSULTING

Safety 1st

Business Continuity Management (BCM)

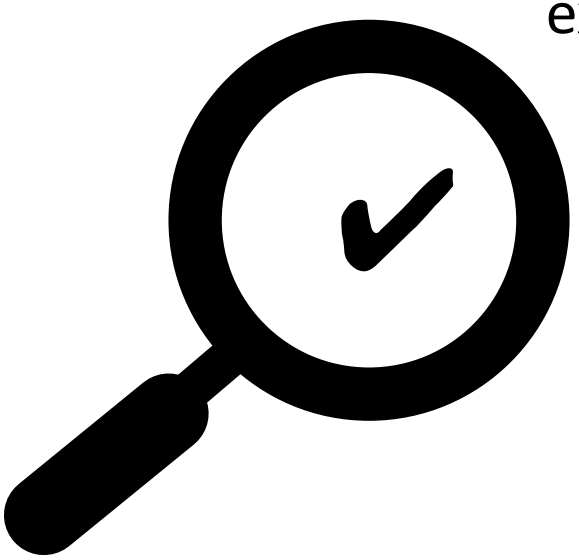
Geraint Bermingham

ĐẠT VHAT CẤP CHỦ ĐỘNG 4.0

Slide pack #4 of 4

The objective of this training course is:

To develop a good working level understanding of business continuity management and planning as applicable to all parts of a full service airline group and to form the foundation for the development of core expertise in business continuity management.



Agenda

1. The fundamentals of BCM
   - The nature of disruption
   - Past examples
   - ICAO Requirements
   - IATA guidance

2. Developing a BCM framework
2. Management of events

3. Risk mapping the business
3. Applying the process across the Group

4. Recap course content

Nature of Impacts and Types of Response

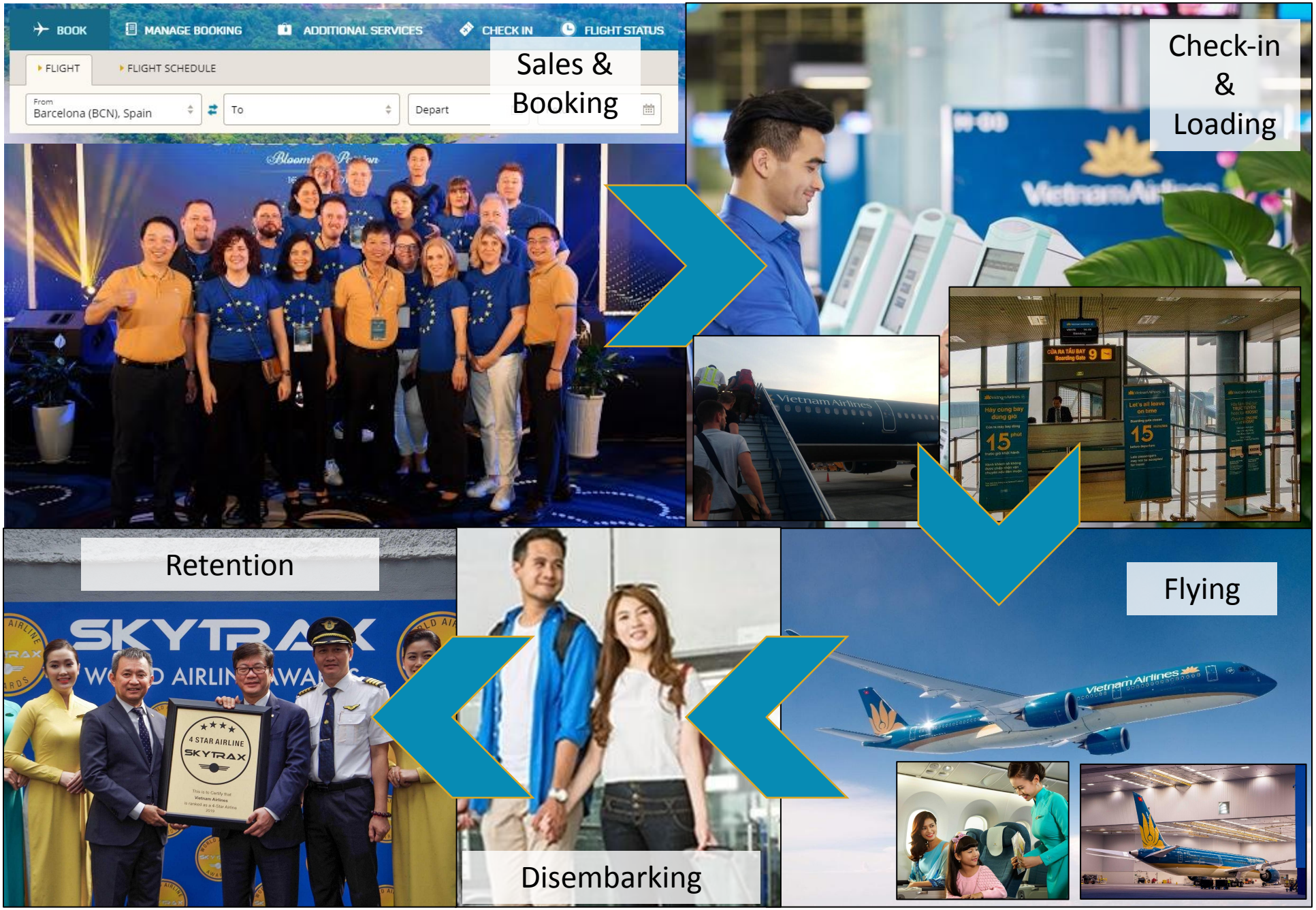
A Significant Business Disruption may or may not be associated with a sudden or catastrophic event but can still have a significant disruption to the business has occurred or threatens to occur.

Such events could be failure of suppliers or contractors, internal or external disruptions, natural disasters, failure of utility services, infrastructure or other similar unexpected events.

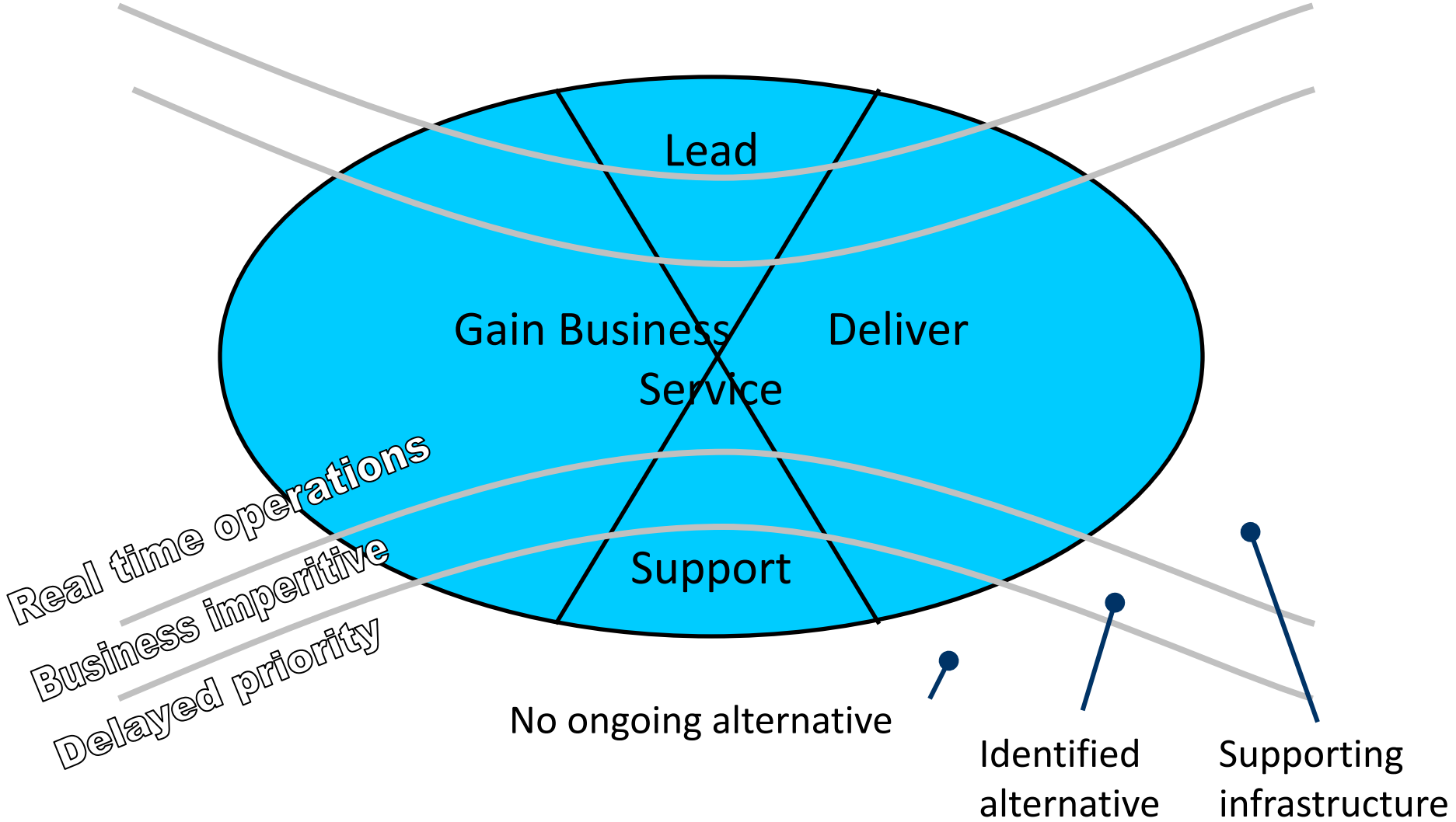
- Acute
- Chronic
- Business
- Emergencies

Nature of Impacts and Types of Response

- Acute
- Chronic
- Business
- Emergencies


BOOK
MANAGE BOOKING
ADDITIONAL SERVICES
CHECK IN
FLIGHT STATUS
FLIGHT
FLIGHT SCHEDULE
From
Barcelona (BCN), Spain
To
Depart
Sales & Booking
Check-in & Loading
Vietnam Airlines
CỬA RA TÀU BAY
Boarding Gate
9
Hãy cùng bay đúng giờ
15 phút
Let's all leave on time
15
Retention
SKYTRAX
4 STAR AIRLINE
SKYTRAX
Disembarking
Flying
Vietnam Airlines

Conceptual Business Model



Disruption?

Exercise: Identify one example of a possible cause or situation each of the following

- Your own perception – no right or wrong answers.

Business Disruption	Major	Minor
Booking / travel		
Check-in / airport		
Embarking / departure		
Flight		
Disembarking / arrival		

We will tally each of the answers up

Nature of Impacts and Types of Response

Type of Response Required

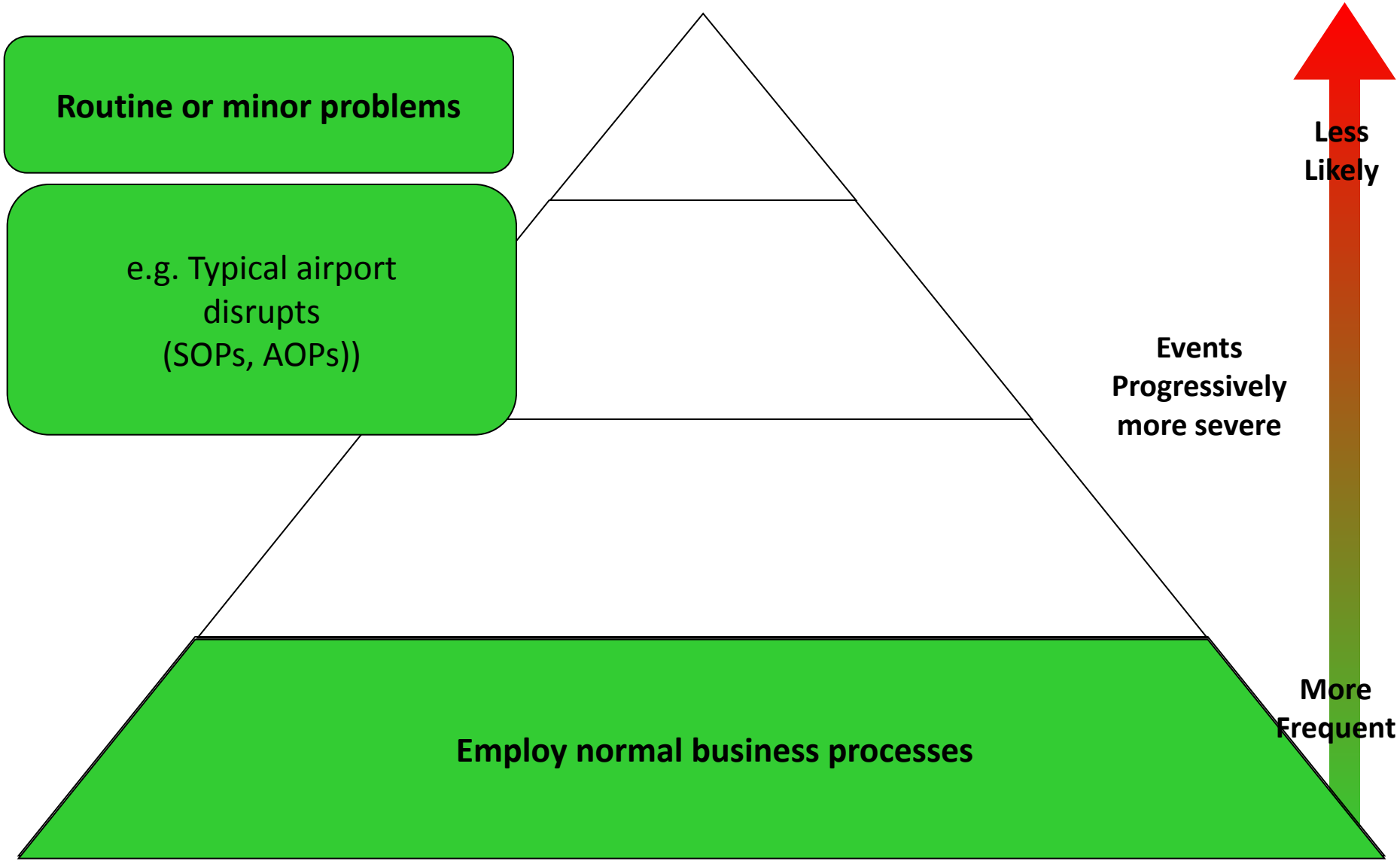
Nature of Impact

_____

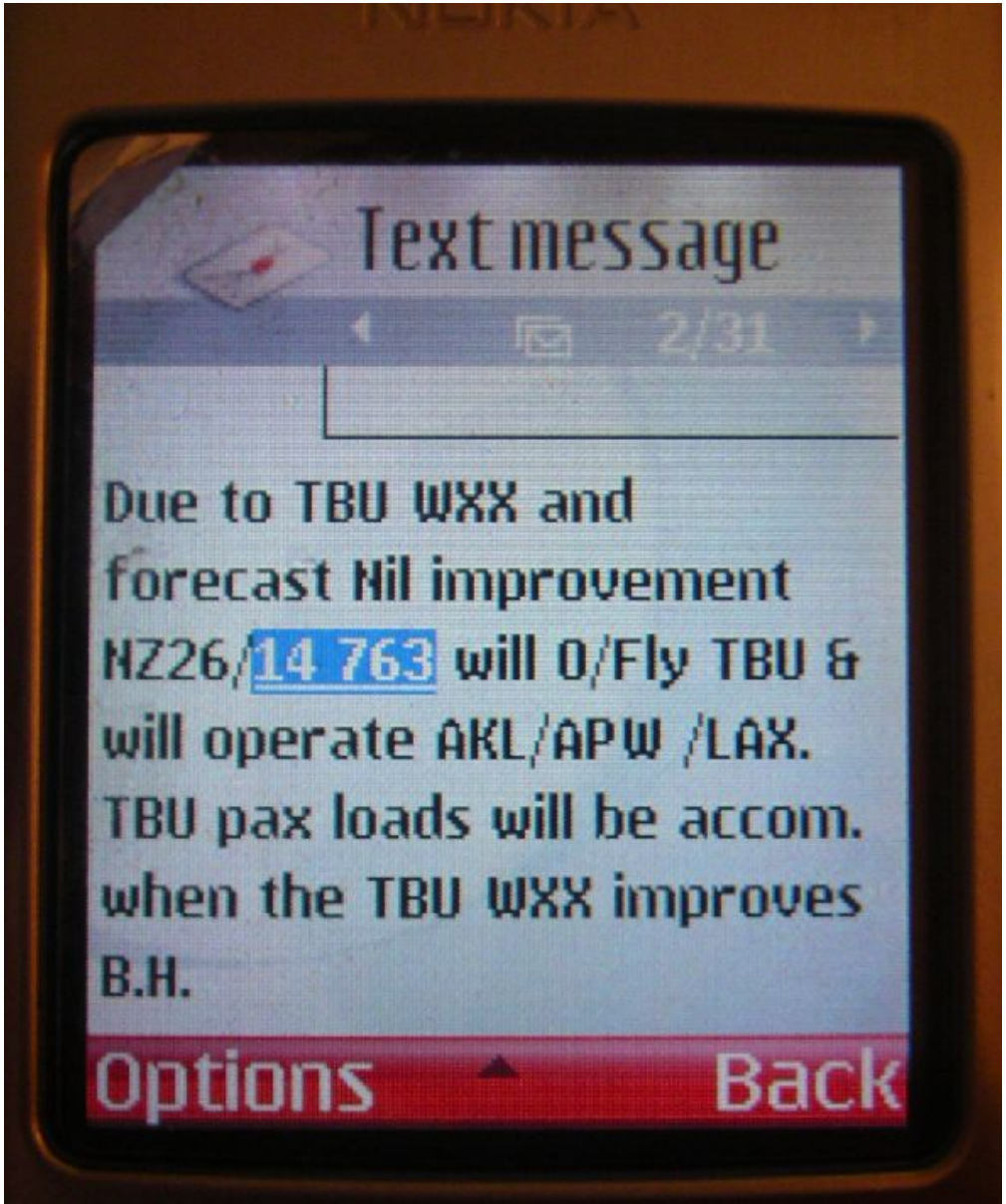
_____

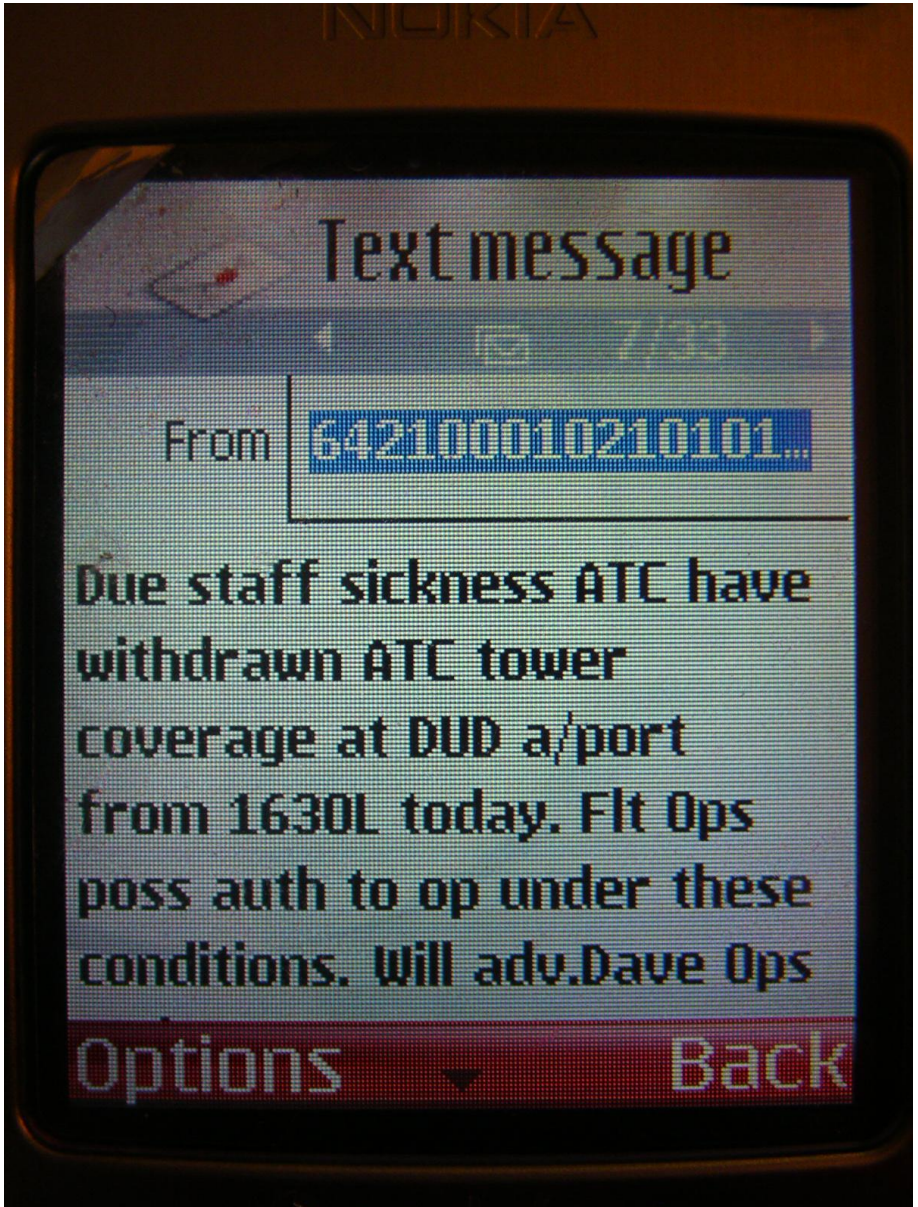
_____

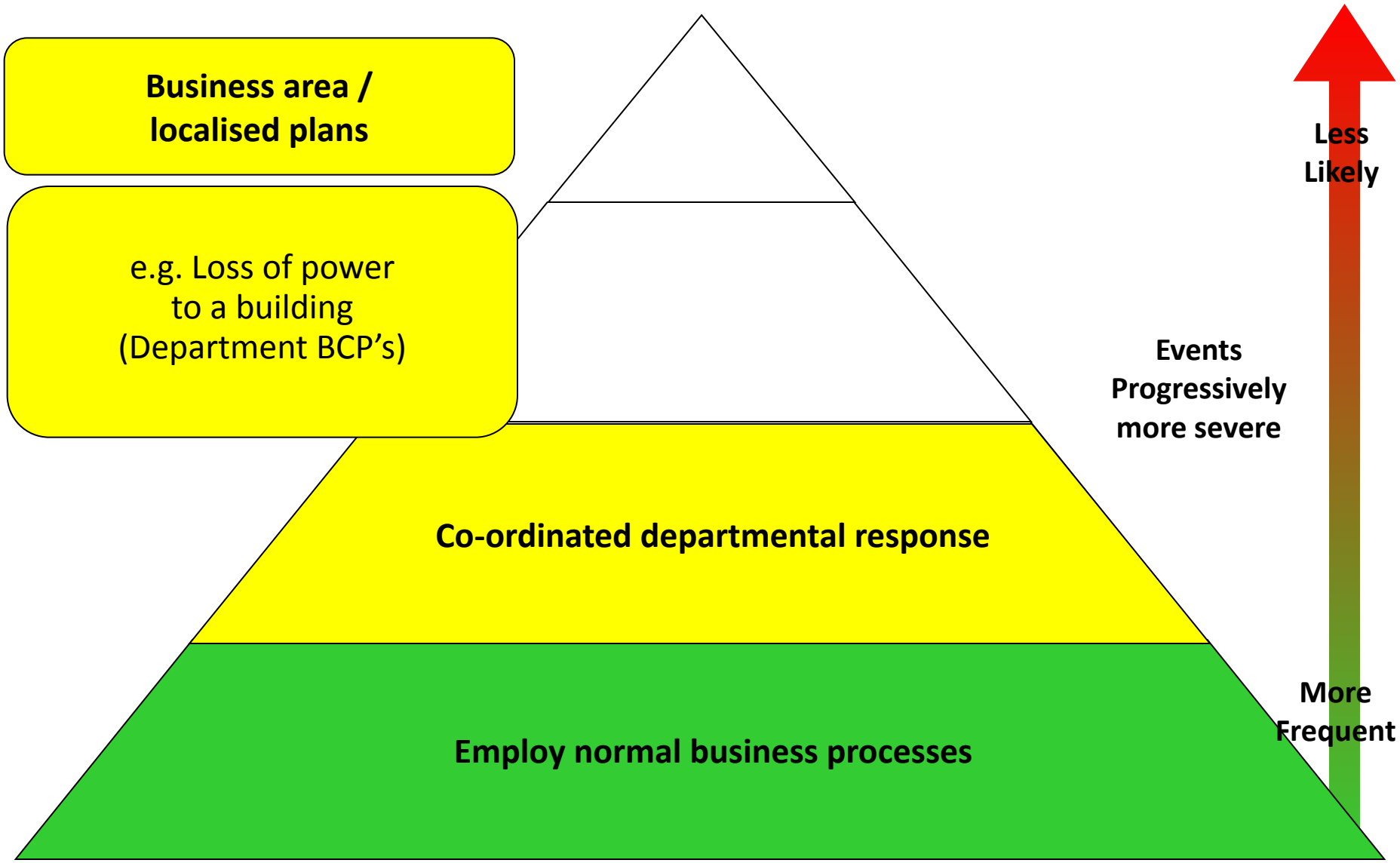
_____



Nature of Impact and Type of Response


Text message
2/31
Due to TBU WXX and forecast Nil improvement NZ26/14 763 will O/Fly TBU & will operate AKL/APW /LAX. TBU pax loads will be accom. when the TBU WXX improves B.H.
Options
Back


Text message
From
Due staff sickness ATC have withdrawn ATC tower coverage at DUD a/port from 1630L today. Flt Ops poss auth to op under these conditions. Will adv.Dave Ops
Options
Back



Nature of Impact and Type of Response

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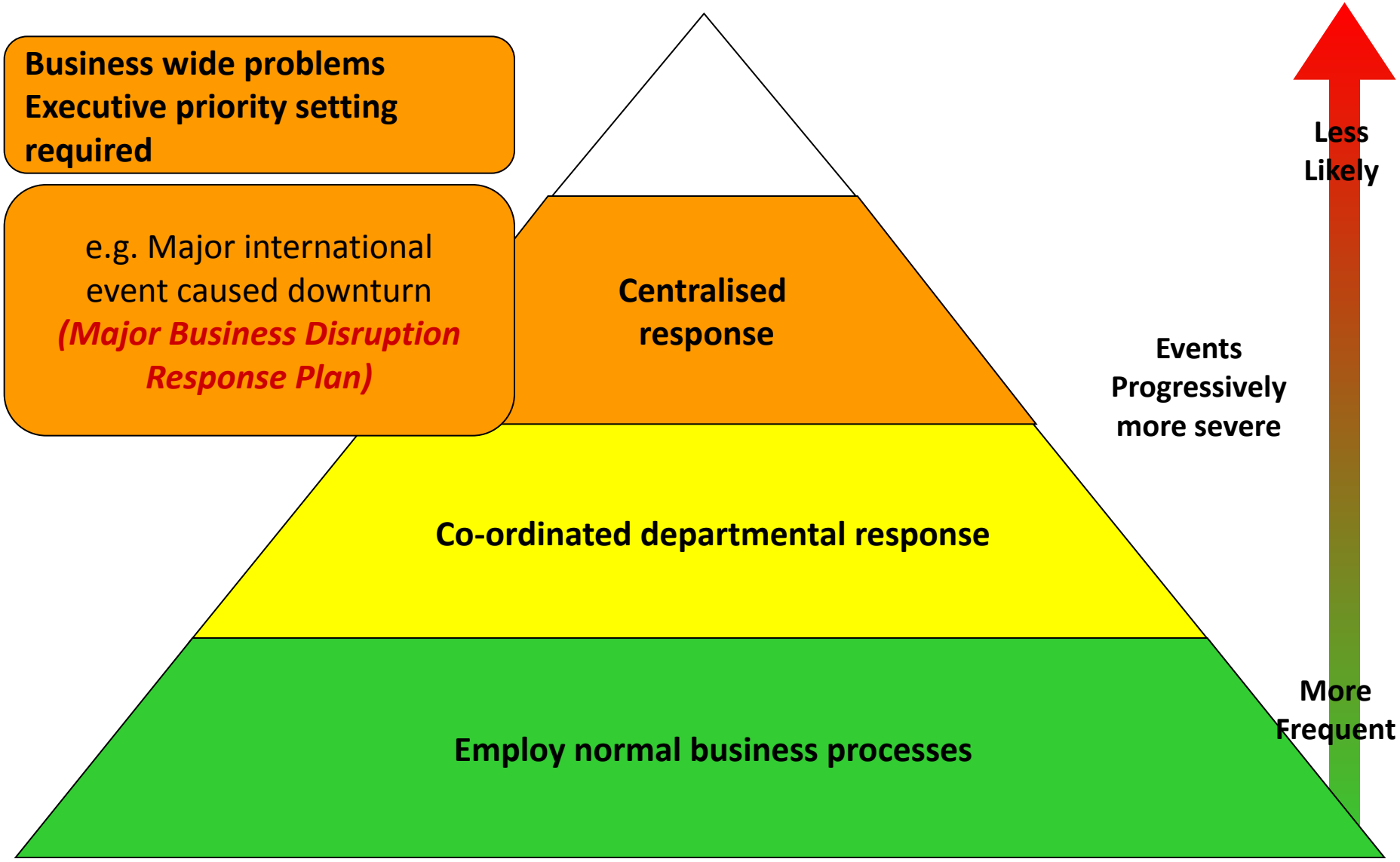
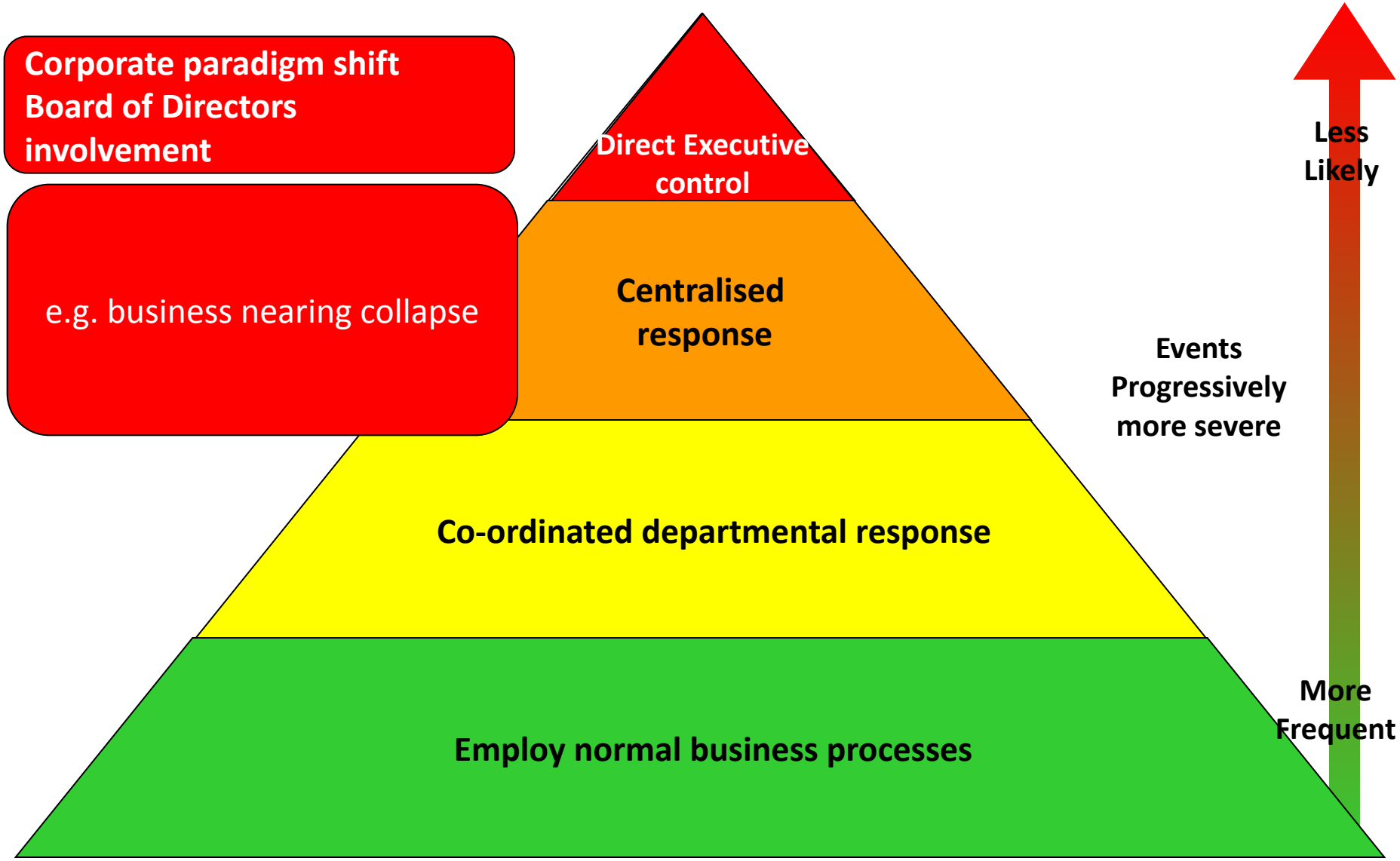
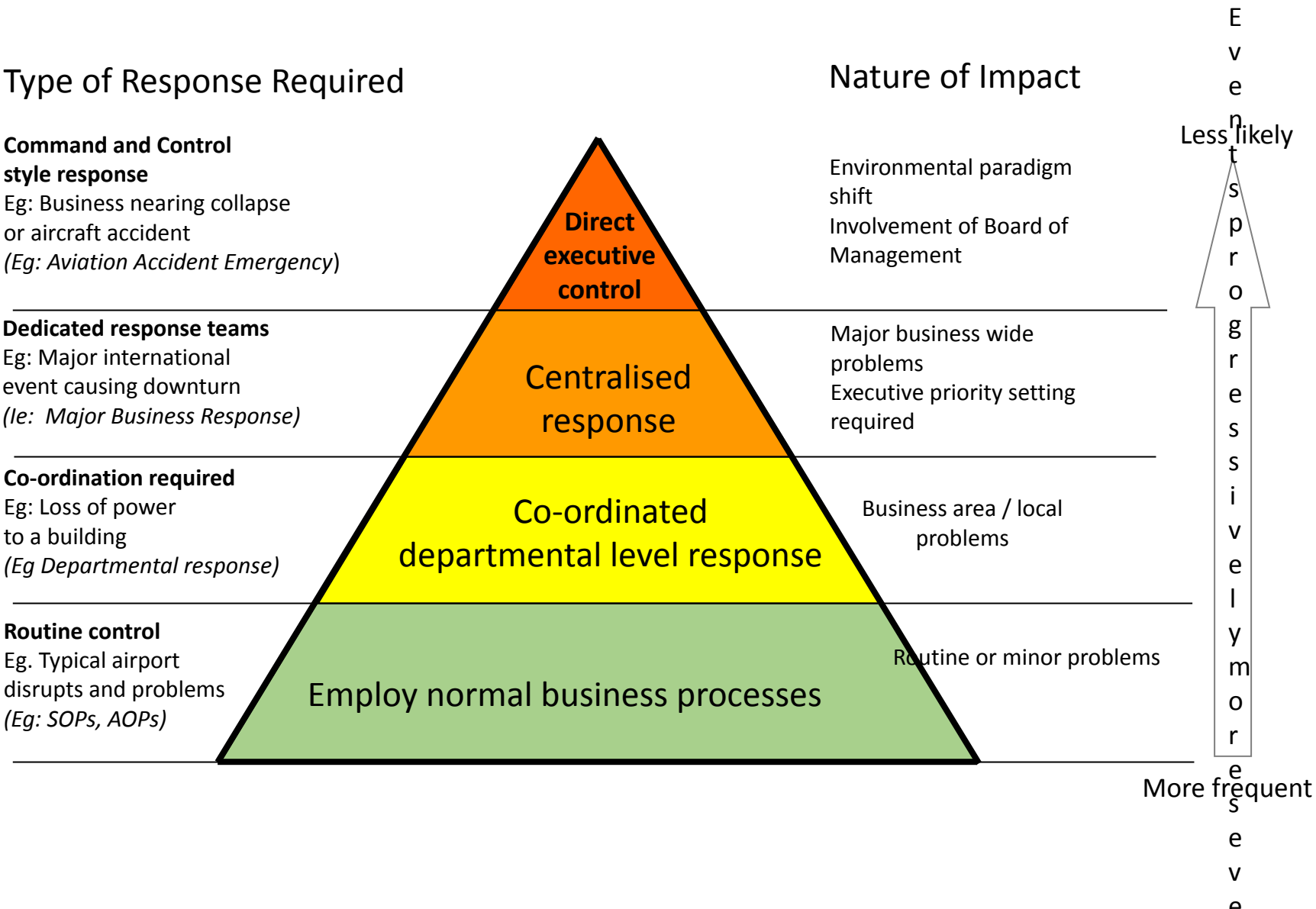


Nature of Impact and Type of Response



Nature of Impact and Type of Response

Nature of Impacts and Types of Response



Response Initiation and communications

Initial Assessment Team

Group Emergency Management Team

Major Business Disruption Response Plan

Business Continuity Plans

Standard Operating Procedures

Operations Response Team

Business Response Team

Case Study – Airline Operations

Objective;

To create a local alternative site for the critical functions that are carried out within the operations centre.

Critical Functions;

- Operations Delivery,
- Flight Despatch,
- Maintenance Watch,
- Navigation Services,
- Aircraft Performance,
- Ground Operations,
- Group Emergency Control Centre.

Practical fall-back equipment

Practical issues to consider:

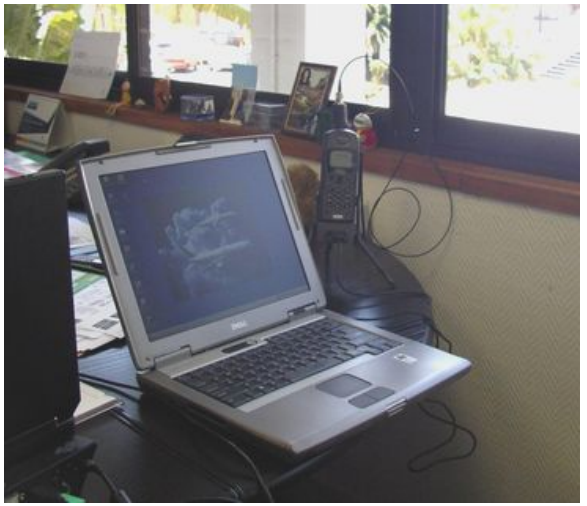
Ensuring a cost effective solution.

Gaining end user support

Gaining I.T. support

Management changes during the project

Ensuring readiness

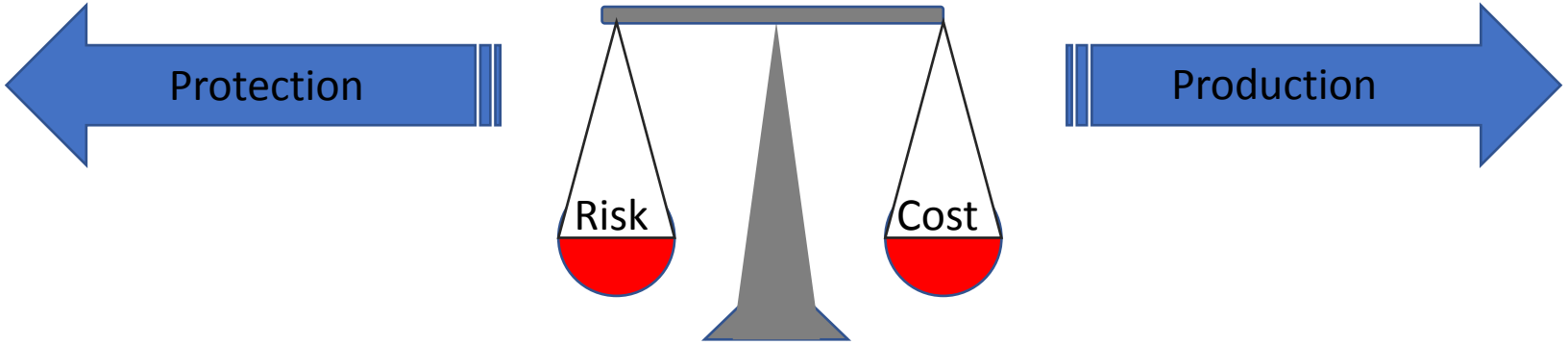


Resourcing?

Like ***safety***, ***BCM*** is a function that does not generate cash flow.

So how to determine how much effort and resource should be applied to the capability?

How much risk?



BCM Bench-marking: Deloitte 2005		
BCM Budget Allocation		
Revenue (all industries) US$	Average BCM Budget / FTE	
< $10M	$1,741,667	0.8 - 5
$ 10M - $ 50M	$1,507,813	0.8 - 5
$ 50M - $ 100M	$1,444,444	0.8 - 5
$ 100M - $ 500M	$2,869,792	5.0
$ 500M - $ 1B	$3,485,714	5.0
$ 1B - $ 5B	$7,200,980	8.0
$ > $5B	$17,620,000	8.6

Incident rapid-response areas

- Workplace Emergency Management (National laws)
- Industrial Site Emergency Response (National laws)
- Aviation Emergency Management (ICAO requirement)
- Business continuity planning BCP)
- IT Disaster Recovery (ITDR)

What is the advantage of keeping response planning separate?

1. Each department understands the detail
2. Simple in concept

Incident rapid-response areas

- Workplace Emergency Management (National laws)
- Industrial Site Emergency Response (National laws)
- Aviation Emergency Management (ICAO requirement)
- Business continuity planning BCP)
- IT Disaster Recovery (ITDR)

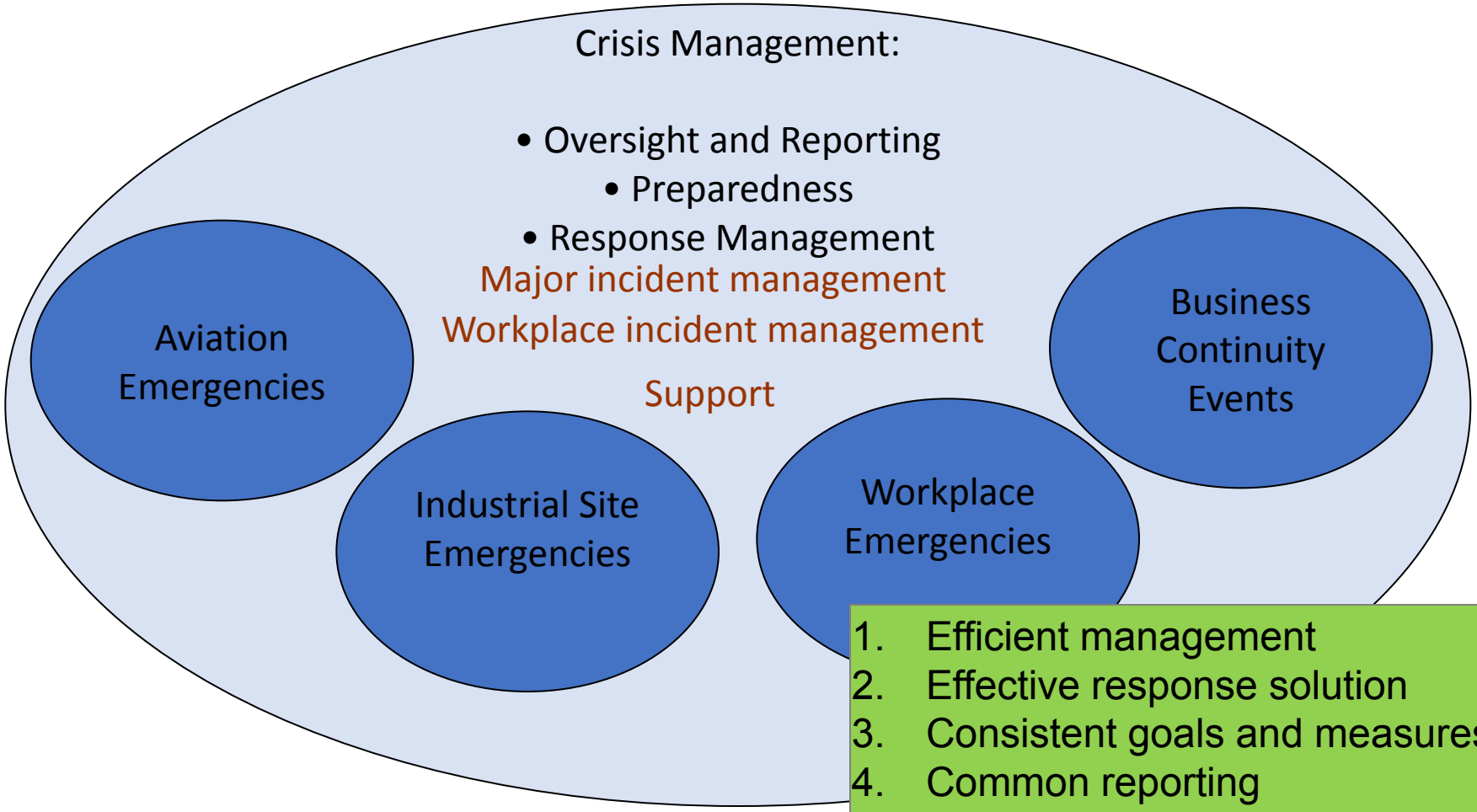
What are disadvantages of keeping each response function separate?

Inconsistent reporting

1. No common ownership
2. Potentially confusing
3. Inconsistent response goals and standards
4. Out of step with aviation best practice
5. Inefficient

Combined Model

- Can combine the BCP and Emergency functions and other currently distributed responsibilities to form a focused team responsible for incident 'preparedness and response' – A Crisis management Team



Vietnam Airlines
TỰ HÀO VƯƠN CAO

Business Continuity Management (BCM)

Risk, readiness response and recovery

Geraint Bermingham

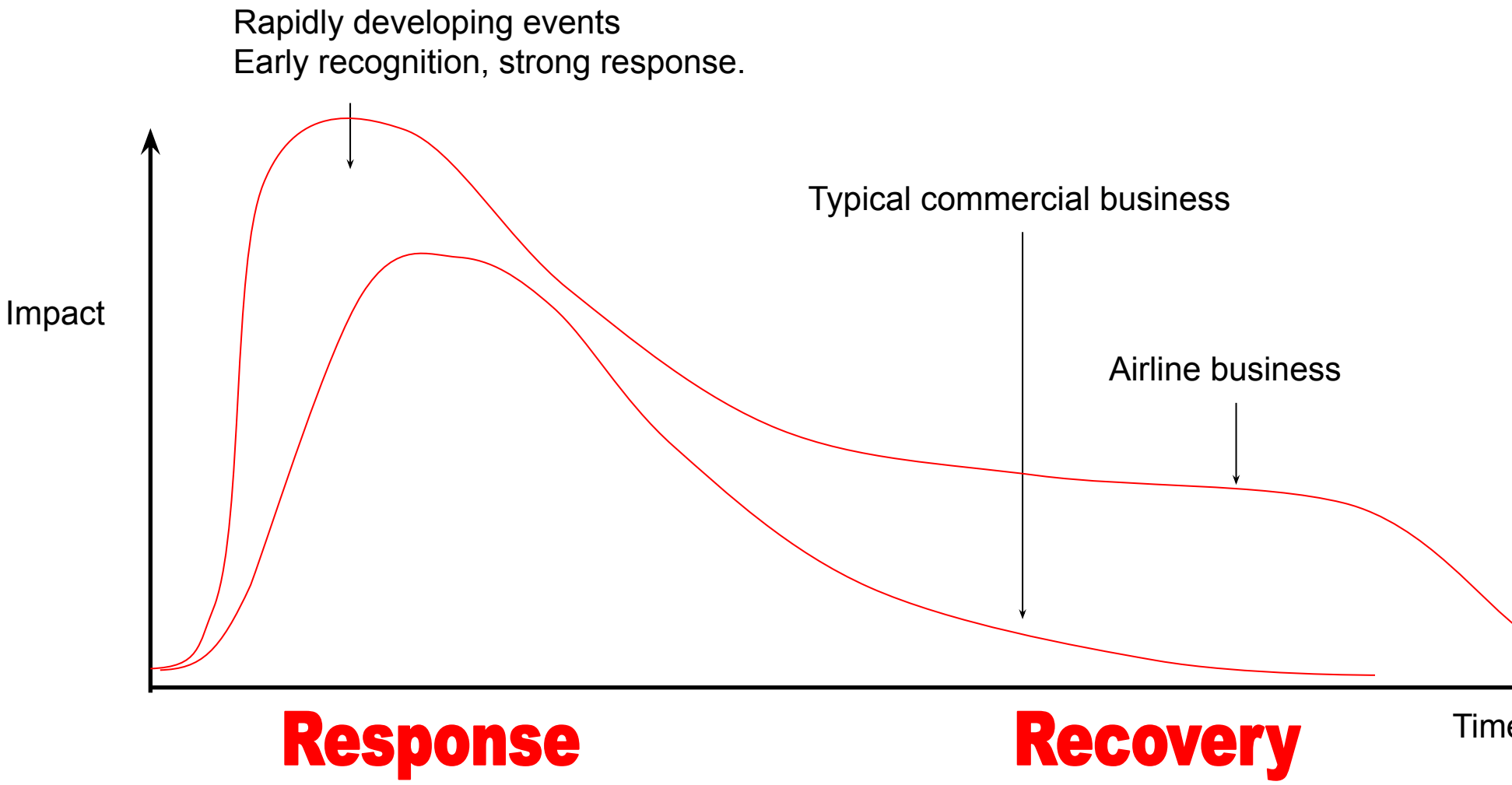
Slide pack #3 of 4

NAVIGATUS CONSULTING

Welbees

BCM - The 4 phases

Disruption impact time line



The 4 phases of BCM

	Risk Reduction	Readiness	Response	Recovery
Aviation emergencies	Operational standards	Plans Training Exercises Response teams	Airline emergency centre IATA Command & Control	Business recovery NOK/crew support Brand management
Site emergencies	Facilities management Work practices	Plans Training Exercises Shift management	Shift manager Crash fire Airline emergency centre Command & Control	Business recovery Staff support Brand management
Workplace emergencies	Building and workplace management	Plans Education Exercises Wardens	Wardens Civil agencies Management oversight	Business recovery Staff support Brand management
Business continuity	Risk profiling Process protection	Plans (BCPs) Communication Exercises Dept managers	Manager BCM Dept Managers Coordination	Business recovery Staff support Market recovery Brand management
Comparisons	• *Different skills and focus* • *Common reporting?*	• *Similar preparation* • *Different onsite staff*	• *Different onsite management* • *Similar oversight*	• *Common aim*

Introduction to ISO 31 000: 2018

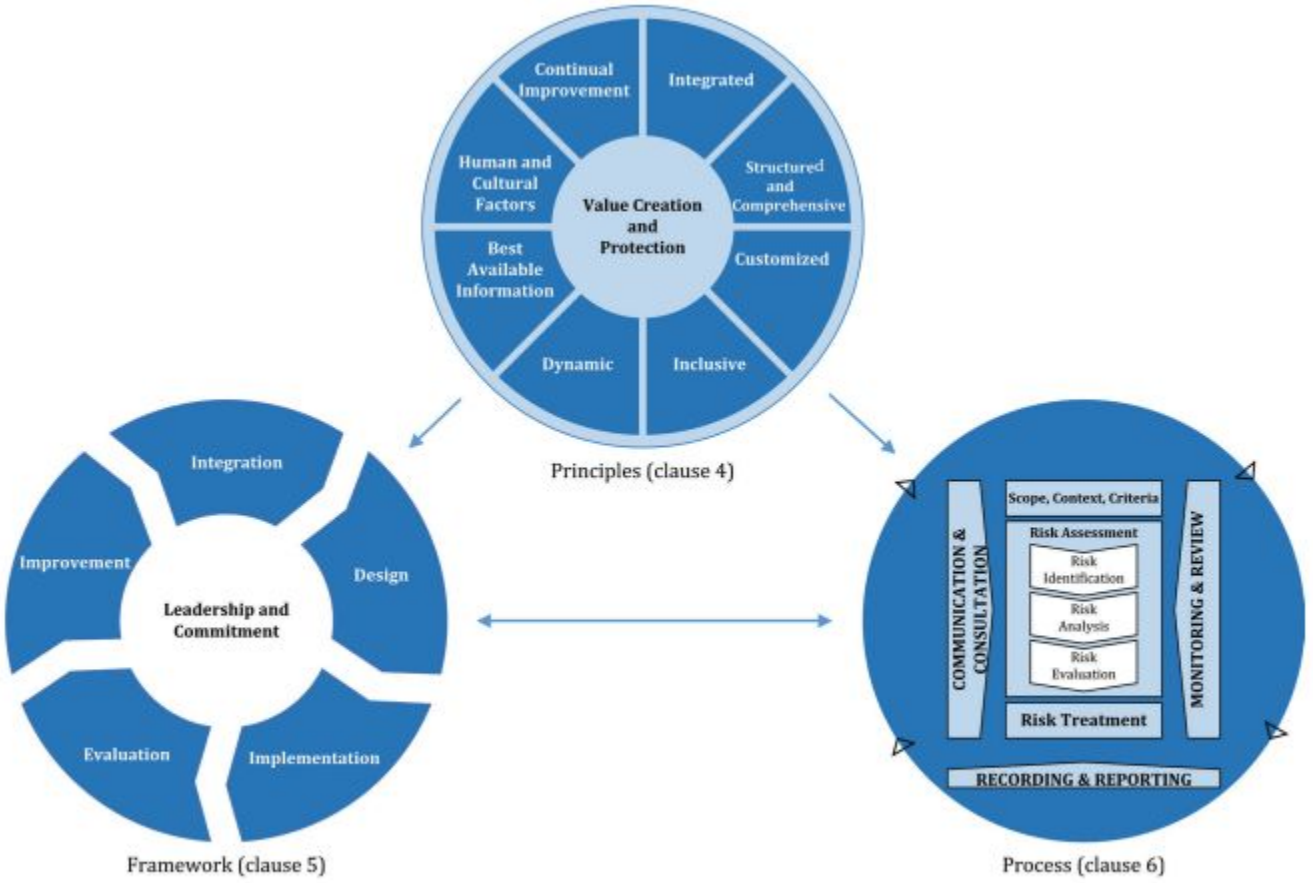


Figure 1 — Principles, framework and process

Using a simple Risk Rating

	Likely (3)	Pos (2)	UnL (1)
High (3)	High (9)	High (6)	Medium (3)
Med (2)	High (6)	Medium (4)	Low (2)
Low (1)	Medium (3)	Low (2)	Low (1)

Keeping it simp

Red = 8

Orange = 4

Green = 2

Risk Mapping – Infrastructure failure (example)

OFFSHORE AIRPORT LOCATIONS								
Region	Code	Location	Natural Hazard Profile	Potential Failure of Infrastructure	Potential civil unrest	Terrorist event	Potential Impact to Schedule	Overall score
AMERICA	HNL	Honolulu	H	L	L	M	M	
AMERICA	LAX	Los Angeles	H	L	M	L	L	
AMERICA	SFO	San Francisco	H	L	L	L	L	
ASIA	HKG	Hong Kong	M	L	M	L	H	
ASIA	KIX	Osaka (Kansai)	H	L	L	L	M	
ASIA	NGO	Nagoya	H	L	L	L	M	
ASIA	NRT	Tokyo (Narita)	H	L	L	L	H	
ASIA	SIN	Singapore	L	L	L	L	H	
ASIA	TPE	Taipei	M	L	L	M	M	
AUSTRALIA	BNE	Brisbane	L	L	L	L	L	
AUSTRALIA	CNS	Cairns	L	M	L	L	L	
AUSTRALIA	MEL	Melbourne	L	L	L	L	L	
AUSTRALIA	SYD	Sydney	L	L	L	L	M	
EUROPE	LHR	London	L	L	L	H	L	

Risk Mapping – Infrastructure failure (exercise)

OFFSHORE AIRPORT LOCATIONS								
Region	Code	Location	Natural Hazard Profile	Potential Failure of Infrastructure	Potential civil unrest	Terrorist event	Potential Impact to Schedule	Overall score
HANOI								
HO CHI MINH CITY								
CAM RANH								
PHNOM PENH								
SINGAPORE								
TOKYO								
SAN FRANCISCO								
SYDNEY								
PARIS								

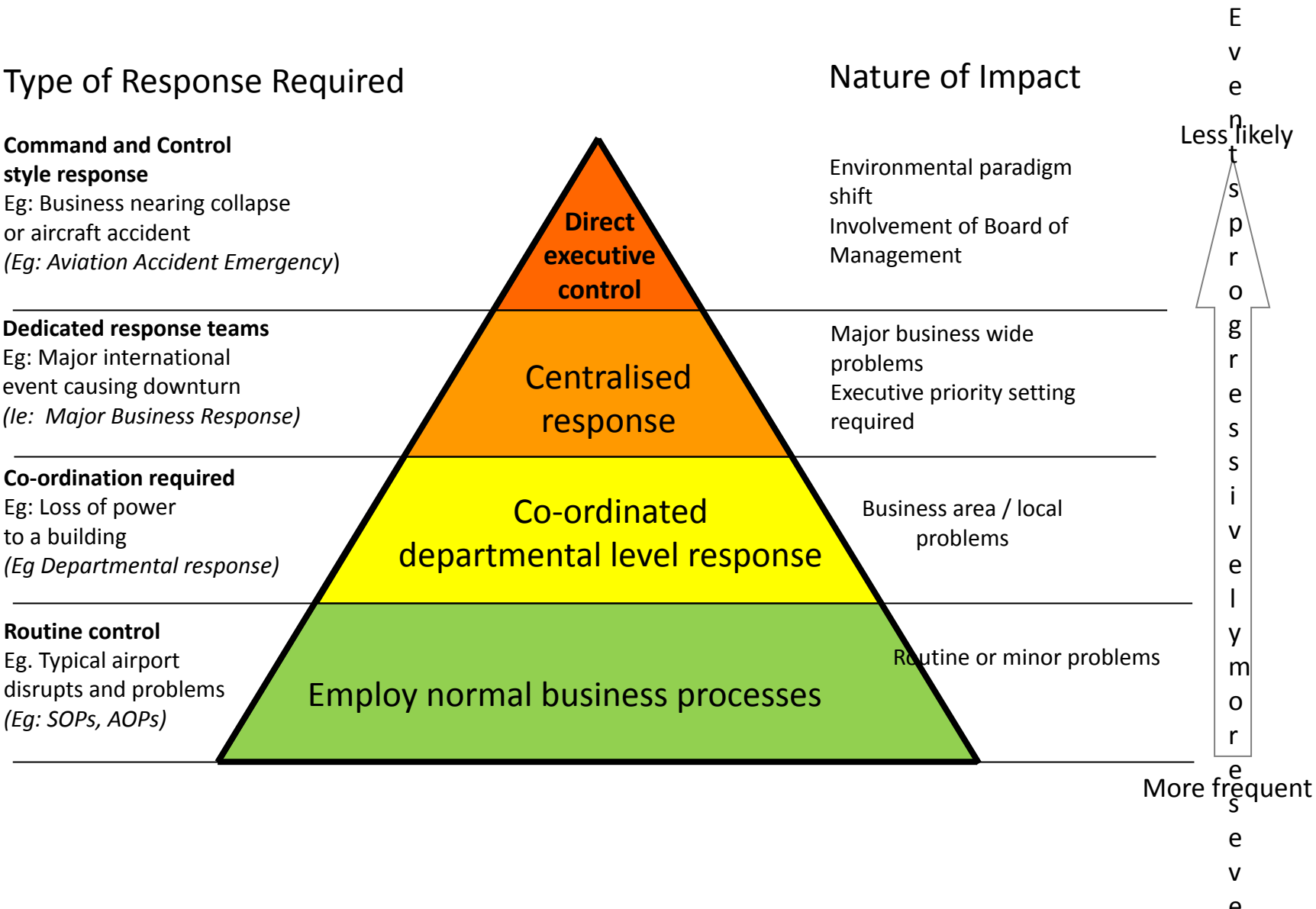
	Likely (3)	Pos (2)	UnL (1)
High (3)	8	8	4
Med (2)	8	4	2
Low (1)	4	2	2

Pandemic Readiness - Exercise

Exercise: Results

Feature	Existing	Simple solution	Best solution
Risk reduction			
Communication of disruption			
Readiness arrangements			
Team up with?			

Nature of Impacts and Types of Response



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Response – Group Exercise

Exercise Part : Results discussion

Feature	First actions	Priorities as event unfolds	Information required	Information supplied (Internal) What and who?	Information supplied (external) What and who?
Major power outage (Hub)					
Central IT outage					
Extreme weather					
Report of terrorist act affecting a VNA aircraft and PAX					

Recovery phase

Disruptions to the Canadian airline industry

(Percentages indicate year-over-year changes)

2001 – September 11 events in the United States

A sudden 26.0% drop of passengers followed by a gradual recovery.

2003 – SARS (severe acute respiratory syndrome) outbreak

A gradual decline of passengers reaching a 26.0% decrease in May, followed by a gradual recovery.

2020 – COVID-19 pandemic

A steep decline, initially falling to 97.0% fewer passengers than the previous year.

Source: Monthly Civil Aviation Survey (5026), table 23-10-0079-01.

CATHAY PACIFIC

Volver a historias

Cathay Pacific honoured for showing leadership during SARS

Miércoles 5 de noviembre de 2003 —

Cathay Pacific Airways was last night honoured by the travel industry for demonstrating outstanding leadership and initiative in efforts to help Hong Kong and the region recover from the effects of SARS.

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Change Point = Opportunities

危機
危机

Reference: Civil Air Navigation Services Organisation (CANSO)

Pandemic Recovery - Exercise

Exercise Part 1: Results

Feature	Worst case	Most likely case	Best case
Time line			
Travel demand (domestic)			
Travel demand (international)			

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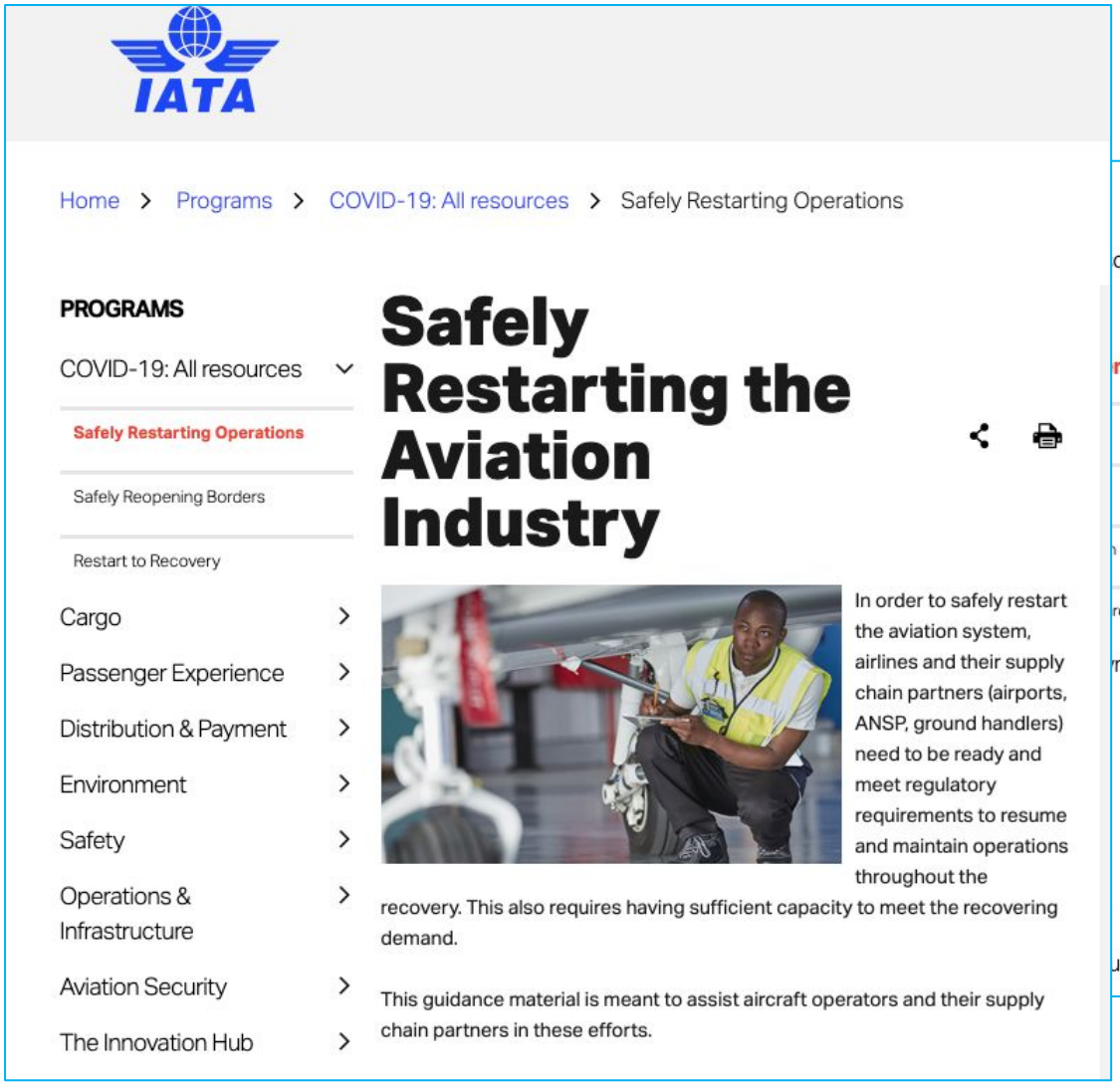
Pandemic Recovery - Exercise

Exercise Part 2: Results

Feature	People	Processes
Tasks		
Challenges		
Risks		
Other issues		

Guidance



https://www.iata.org/en/programs/covid-19-resources-guidelines/safely-restarting/

Questions – Comments – 2 more slides

Summary

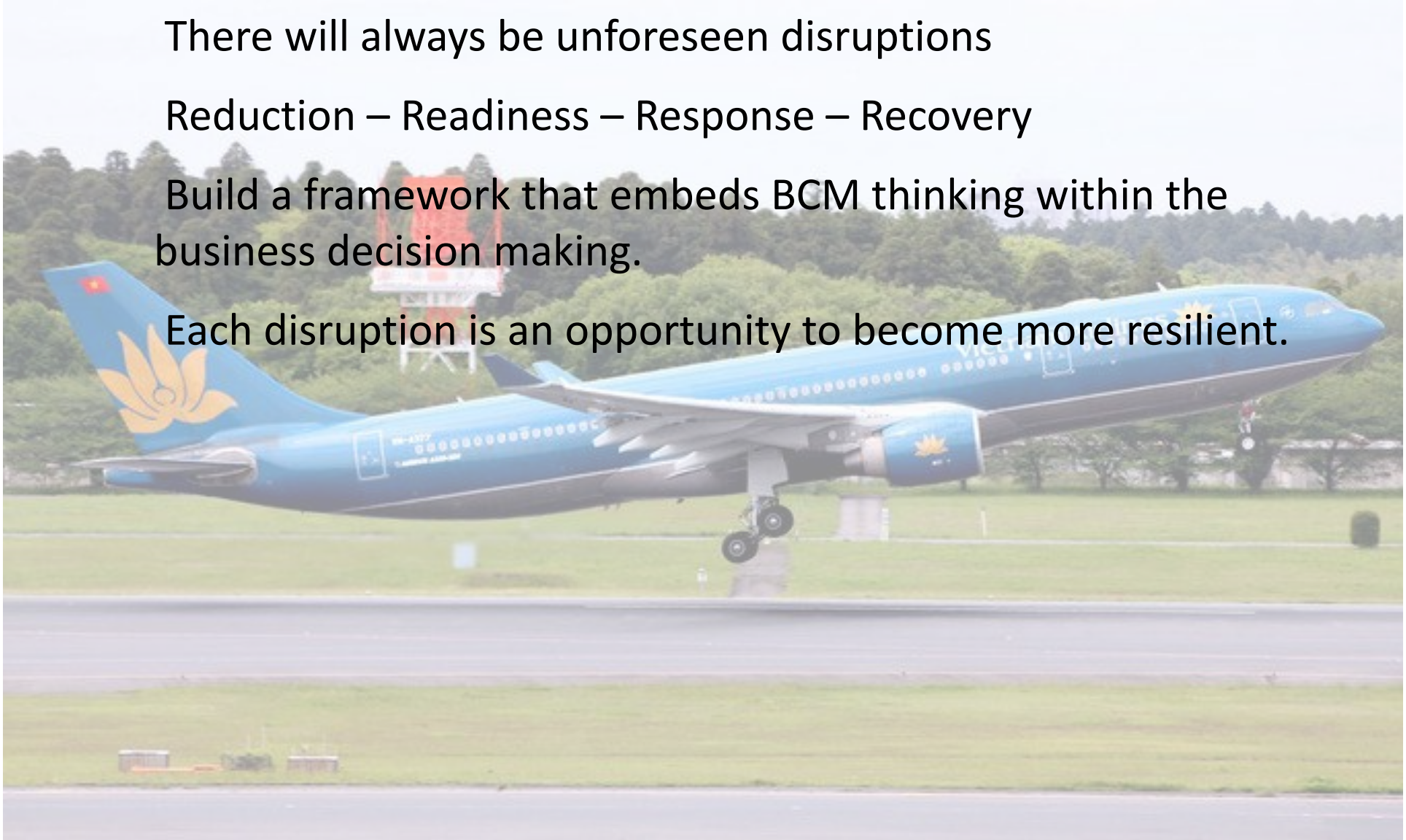
Likelihood of disruption events reduced

Customer impact minimised

Commercial impact minimised

Full recovery expedited

Summary



There will always be unforeseen disruptions

Reduction – Readiness – Response – Recovery

Build a framework that embeds BCM thinking within the business decision making.

Each disruption is an opportunity to become more resilient.

Image source: https://vietnamenews.vn

Thank you

Image source: https://vietnamenews.vn