

Measuring Readiness and Building Capability in Business Continuity

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#RAW2021



$$-V_{eq} \frac{dM}{dt}$$

$$dM = V_{eq} dmp$$

$$u du = -V_{eq} dM$$

$$du = -V_{eq} \frac{dM}{M}$$

$$\Delta u = -V_{eq} \ln\left(\frac{m_e}{m_f}\right)$$

$$\sum_{i=1}^{100} i = \frac{n(n+1)}{2} = \frac{1000+1001}{2} = 1000.5$$

$$PV = nRT$$

$$\omega = 2 * \pi * f$$

instantaneous mass of rocket
 velocity of rocket
 time

net force = thrust = $\bar{m} V_{eq}$
 equivalent engine exhaust velocity = $1 \text{ sp } g_0$

$$M = \bar{F} d \cos \alpha$$

$$\int \frac{m_1+m_2}{r^2} dx$$

$$\sum dx$$

$$\sum$$

$F = \text{net force} = \text{thrust} = \bar{m} V_{eq}$
 $V_{eq} = \text{equivalent engine exhaust}$

Newton's second law of motion:

$$\frac{dMu}{dt} = F = V_{eq} \frac{dmp}{dt}$$

$$\sum_{i=1}^{100} i^2 = \frac{100(100+1)(2*100+1)}{6} = 338350$$

Newton's second law of motion:

$$\frac{dMu}{dt} = F = V_{eq} \frac{dmp}{dt}$$

$$M du + u dM = V_{eq} dmp$$

$$u du = -V_{eq} dM$$

$$du = -V_{eq} \frac{dM}{M}$$

$$\Delta u = -V_{eq} \ln\left(\frac{m_e}{m_f}\right)$$

Assume with rocket
 $\rightarrow u = 0$

$$\Delta u = V_{eq} \ln\left(\frac{m_f}{m_e}\right) = V_{eq} \ln MR = 1 \text{ sp } g$$

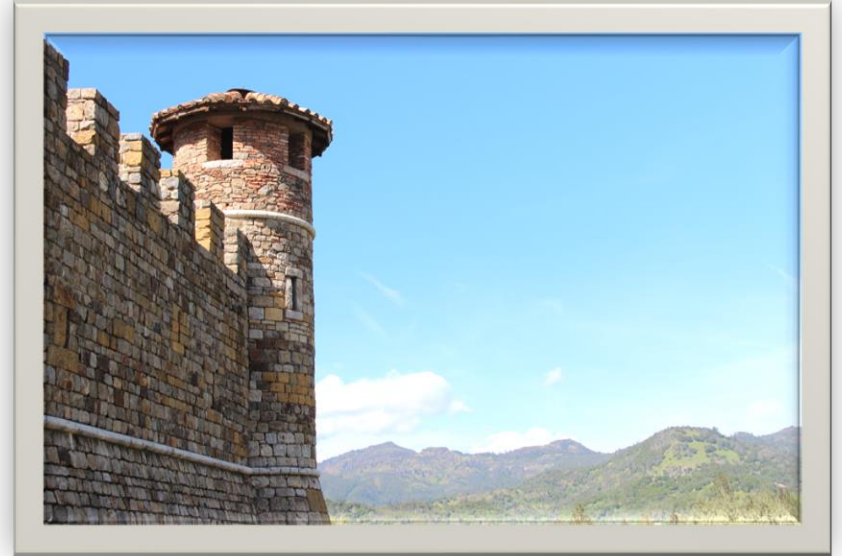
Agenda

- Part One: What actually works in a post-disaster environment
- Part Two: Measuring Preparedness
- Part Three: Implications (brief)



SCOPE: Business Continuity (BC) only

- BC is not CM, EM, ERM, IT DR, etc.
- BC is not Resilience or Organizational Resilience (OR)
- BC has its **own** body of knowledge – with its own measures!



<https://goo.gl/images/KFp9j7>

Business Continuity

An organization's ability to recover and continue services, individually and/or holistically, following an uncontrolled physical and/or staffing loss

Caveats

There is too much text on some slides:

- This is for your future reference
- I will not read the slides (don't worry)



PART ONE: What works?!?



So little research



“There is a relative dearth of empirical studies on how organisations respond to a major disaster, recover from it, and renew themselves in a new post-disaster environment.” (Vilakant, et al., p. 25)



“Despite a growing interest in organisational resilience, there is very little empirical evidence of what organisations actually do in the face of disasters.” (Vilakant, et al., p. 36)



“...the ways in which organisations respond to, adapt, and recover post-disaster are poorly understood (Halvorson and Hamilton 2010.” (Prayag and Orchiston, p. 97)



“It remains unclear what resilient organizations actually do and how organizational resilience may be achieved in practice.” (2019, Duchek, p.2)

Business and Post-disaster Management

Business, organisational and consumer
resilience and the Christchurch earthquakes

Edited by
C. Michael Hall, Sanna Malinen,
Rob Vosslander and Russell
Wordsworth



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https://www.amazon.com/dp/1138890855/ref=cm_sw_em_r_mt_dp_U_UdrzEbTKGE7R1

Binders Don't Work

- Detailed instructions are almost always unhelpful
 - Limited time to read and process
 - Limited access to frontal cortex
 - Limited fit to all details of actual losses
- Who is driving this?
 - Auditors
 - Regulators
 - All of us?!



<https://images.app.goo.gl/fEq3SCnZ8EQ7Ctzz5>

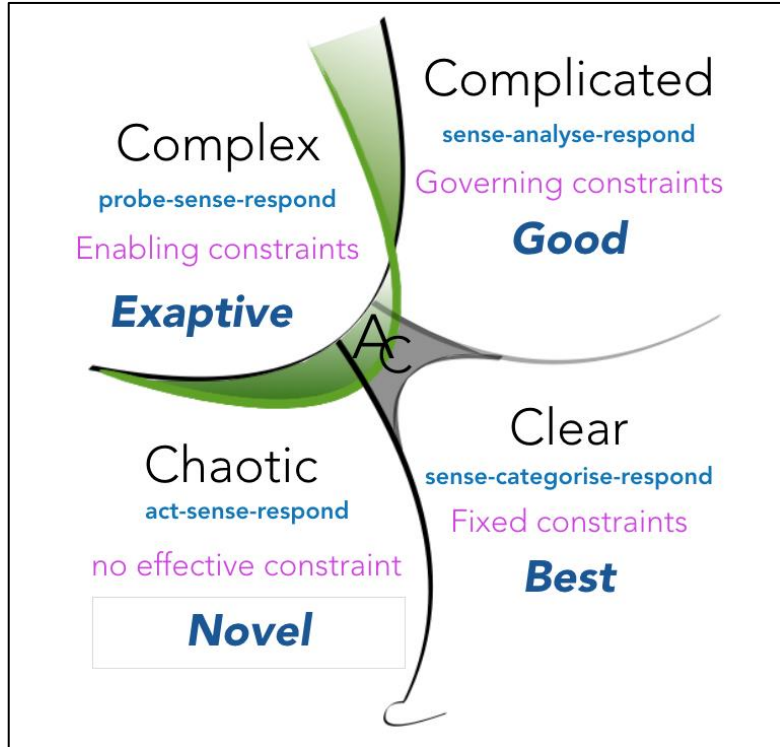
Complexities of the Post-Disaster Environment

Prezi: <http://bit.ly/2BM78qE>

YouTube: <http://bit.ly/2wiGNBx>



Cynefin Model of Complexity (2020)





Along these Lines

Establish “Guiding Principles”*

Pilots, surgeons, sports teams, military || HR, payroll, accounts receivable, central purchasing

Not That

- Specific actions
- Instructions
- Written for anyone
- Culturally indifferent

But this

- Mission and values
- Objectives
- Written for specific teams
- Culturally perceptive

* “Broad Direction of Travel” || “Rules of Engagement” || “Commander’s Intent”

Empower Employees

- “You cannot drive business continuity management, particularly in a crisis, from the top. You have to figure out a way to engage the critical people... that are on the ground and are doing the work day-in and day-out.”
- “Your biggest job... as a CEO is to organize decision-making, organize collaboration, and drive empowerment.”

-- Sheeba Philips, CEO, Akola on responding to COVID19

<https://www.failoverpodcast.com/e/ep-05-driving-bc-from-the-top-during-covid-sheeba-philip/>

Authorize staff to make decisions and take action

- “Effective local leaders empowered their staff by delegating authority.” (p.40)
- “...[a] learning culture was positively related to all wellbeing and attitudinal outcomes...” (p.43)
 - “Being able to discuss mistakes without the fear of retribution,
 - being rewarded for thinking innovatively, and
 - exchanging feedback openly and honestly ...” (p.43)
- “By their nature crises require individuals, and organisations, to be decisive and to take decisions.” (p. 48)
- ““We have tried to cut down on bureaucracy within our organisation so that decision-making is a lot more straightforward and action-oriented...” (72)

Care

- “Leaders who were perceived to be effective were seen to be self-aware, empathetic and valuing people of profits.” (p.40)
- “These leaders were also perceived as being visible, caring, honest and authentic in their communication.” (p.40)
- “...supervisor support was particularly valued when it comprised concern for staff members and for their families.” (p.43)
- “Managers were seen as ‘buffering’ incompatibilities between organisational mandates and the everyday challenges faced by front-line staff in the post-disaster environment.” (p.43)



The alternative? Lose your employees.

“...28 per cent of the 1,750 employers interviewed experienced difficulties in retaining employees as a direct consequence of the Christchurch earthquake sequence... This figure was closer to 50 per cent for larger organisations...” (Wordsworth and Nilakant, p.48)

“Managers need to keep employees engaged during such times and be aware that crises have the potential to magnify feelings of underutilization of self or the pursuit of unanswered callings.”
(Wordsworth and Nilakant, p. 61)



Prepare for Effects, not Causes

Innumerable potential risks

Three foreseeable outcomes:

- Unavailability of people
- Unavailability of resources
- Unavailability of locations



Infrastructure (and Capital)

“The main influence on recovery was the off-site infrastructure damage that affected in particular the movement of good, staff and customers to and from the business. It was the ancillary damage affecting the ability to trade normally that had the greatest impact on recovery prospects.”

(de Vries and Hamilton, p. 24)

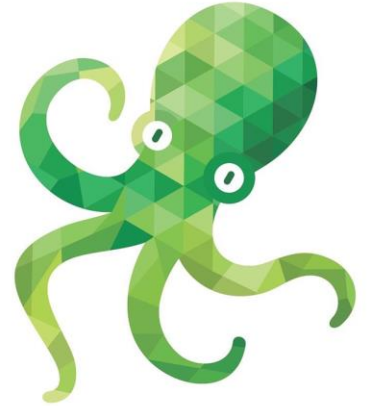


THAT'S NOT
HOW IT WORKS.



Innovations from related fields are impacting day-to-day operations

- **Agile:** Rapid iterations of value (and value to the CUSTOMER)
- **Design Thinking:** Not what YOU would do, or THINK they would do, but do they REALLY do?
- **DevOps:** Spin it up FAST and start to experiment
- **Entrepreneurship:** Experiment! Learn what actually works!
- **Growth Mindset:** The way you envision a problem effects the way you can deal with a problem
- **Lean:** Fail fast, learn fast, prototype, provide value ASAP
- **Motivation 3.0:** Autonomy, Mastery, Meaningful



Recap: What we've Learned



Checklists not binders



Capabilities not documentation



Guiding principles not activities



Innovation not instructions



Effects not causes



Agile not waterfall

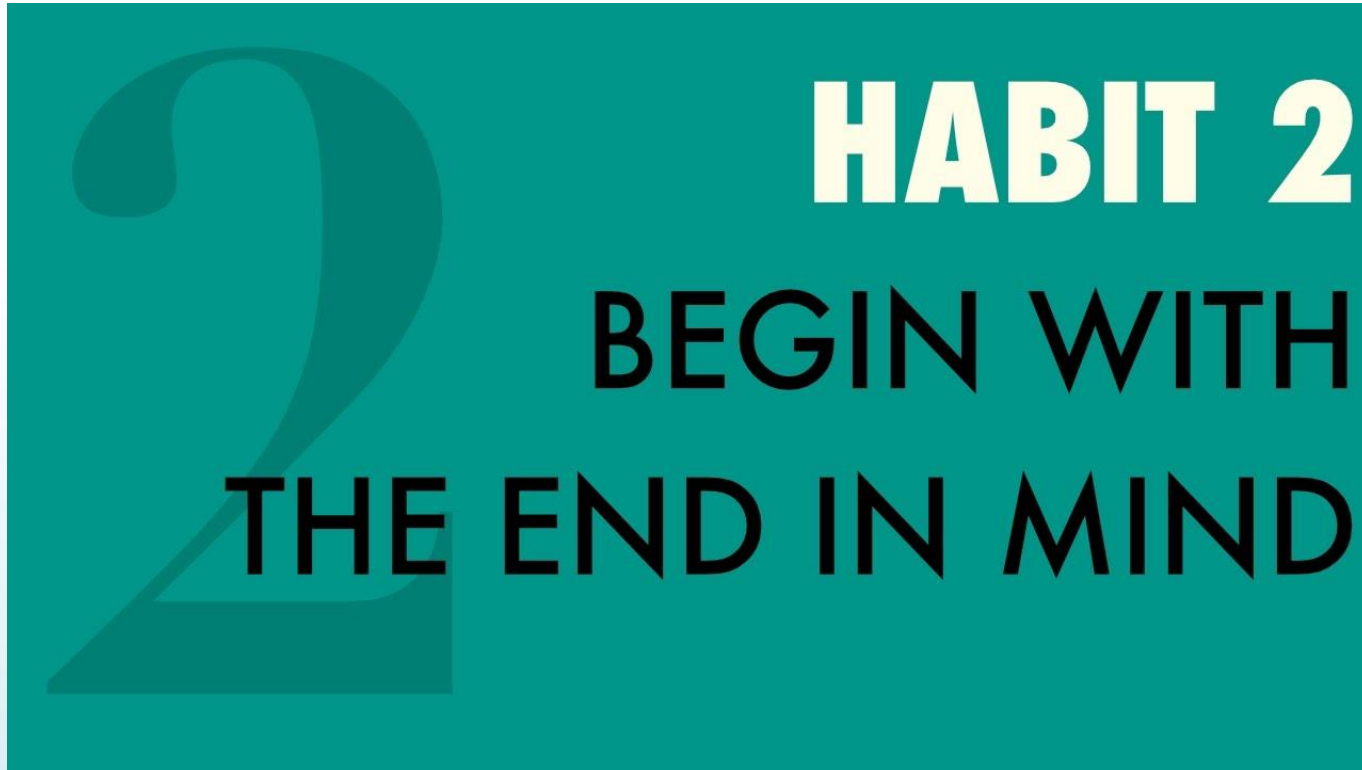


Measuring not counting

PART TWO:
Measuring Preparedness



Where Does This Leave Us (and the profession)?

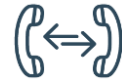


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Business Continuity

The continuous improvement of an organization's capabilities to recover services, individually and/or holistically, following an uncontrolled physical and/or staffing loss

1st Level Categorization: Capabilities to Recover from Disaster



- Resources



- Procedures



- (Crisis) Competencies

RPC Model of Organizational Recoverability©

Resources

- Data and Vital Records
 - Contacts, contracts, guides, forms
 - Data, specimens, research notes
- Software
 - OOB, SaaS, Custom
 - Local, On Prem, Cloud
- (IT Hardware)
- Equipment
 - Generic: Laptops, cell phones, VPN, printers, -80 freezers
 - Specialized: Plastic injection molding, NMRIs, check printing stock

Procedures

- Assess the situation
- Communicate
- Coordinate activities
- Establish locations
- Organize
- Prioritize
- Reestablish all Services

(Crisis) Competencies

- Regular discussion, training, and exercising
- Experience with actual crises
- Leaders with shared vision
- High-performing employees
- Ability to act and make decisions
- Creativity, innovation, and problem solving*
- Soft skills and empathy*

The logo for GSX+ features the letters 'GSX' in a bold, white, sans-serif font, followed by a yellow plus sign. The background of the slide is a dark blue gradient with a complex network of white lines and dots, resembling a globe or a data network, with some larger blue geometric shapes overlaid.

GSX+

GLOBAL SECURITY EXCHANGE PLUS

21-25 SEPTEMBER 2020

Case Study

Freida and Department X

**CASE STUDY:
Frieda and Department X**



This is Frieda; she works in Department X

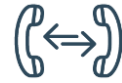


Frieda fills in the blanks!

- Names
- Telephone numbers
- Positions
- Needed equipment
- Standard operating procedures (SOP)
- ... shares the final document with the rest of the department

- What is YOUR “instinct”?
 - Is Department X ready to recover?
 - How much money would you bet?
- Are you going to talk to senior leadership about a hunch?!?

1st Level Categorization: Capabilities to Recover from Disaster



- Resources



- Procedures



- (Crisis) Competencies

RPC Model of Organizational Recoverability©

Some hypothetical numbers

- Resources: 50%
- Procedures: 25%
- (Crisis) Competencies: 20%

$$\text{Preparedness} = (R + P + C) / 3$$

Department X Preparedness = **31.66%**



However: Preparedness is NOT recoverability

An extreme hypothetical example from manufacturing

- Procedures: They know exactly what they'd do to continue making widgets
- (Crisis) Competencies: All ex-Navy Seals who eat stress for breakfast
- Resources: NONE! No backup manufacturing site



Capabilities do not operate in silos

Resources	Procedures	(Crisis) Competencies	Outcome
X	X	X	X
X	X	✓	X
X	✓	X	X
✓	X	X	X
X	✓	X	X
X	✓	✓	X
✓	X	✓	X
✓	✓	X	X
✓	✓	✓	✓

More hypothetical numbers

Our Manufacturing Example:

- Resources: 0%
- Procedures: 100%
- (Crisis) Competencies: 100%

Recoverability = **0%**

Our Department X Example:

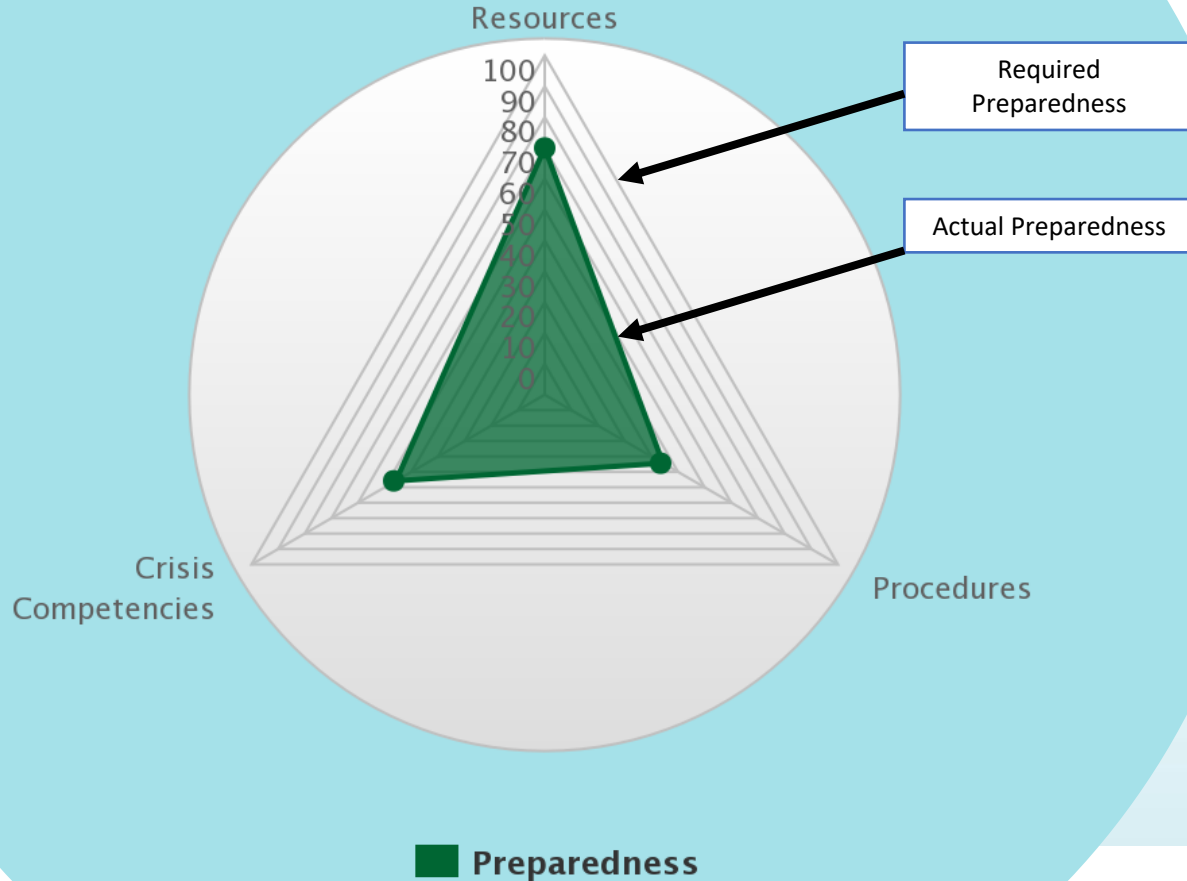
- Resources: 50%
- Procedures: 25%
- (Crisis) Competencies: 20%

Recoverability = **2.5%**

$$(R \times P \times C) = RCI^{\text{TM}}$$

Recoverability Confidence Index (RCI)TM

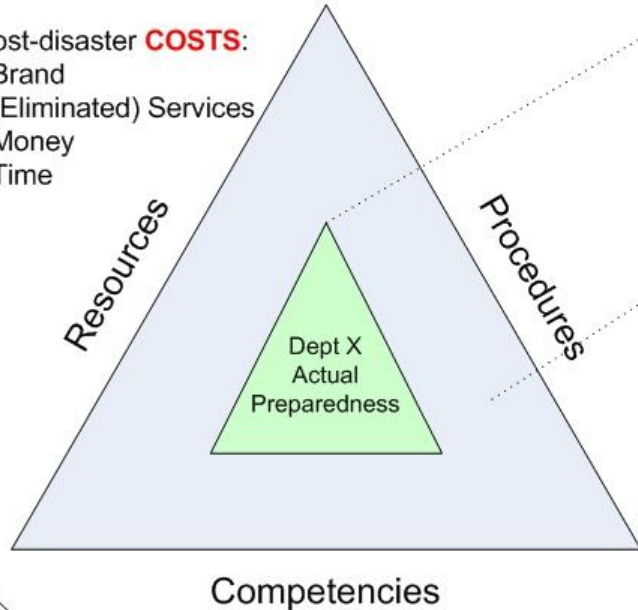
Overall Preparedness Scores (Mouse-over for more detail)



RPC Model of Recoverability (Costs of Post-Disaster Recoverability)

Post-disaster **COSTS**:

- Brand
- (Eliminated) Services
- Money
- Time



Measured triangle =
Actual preparedness

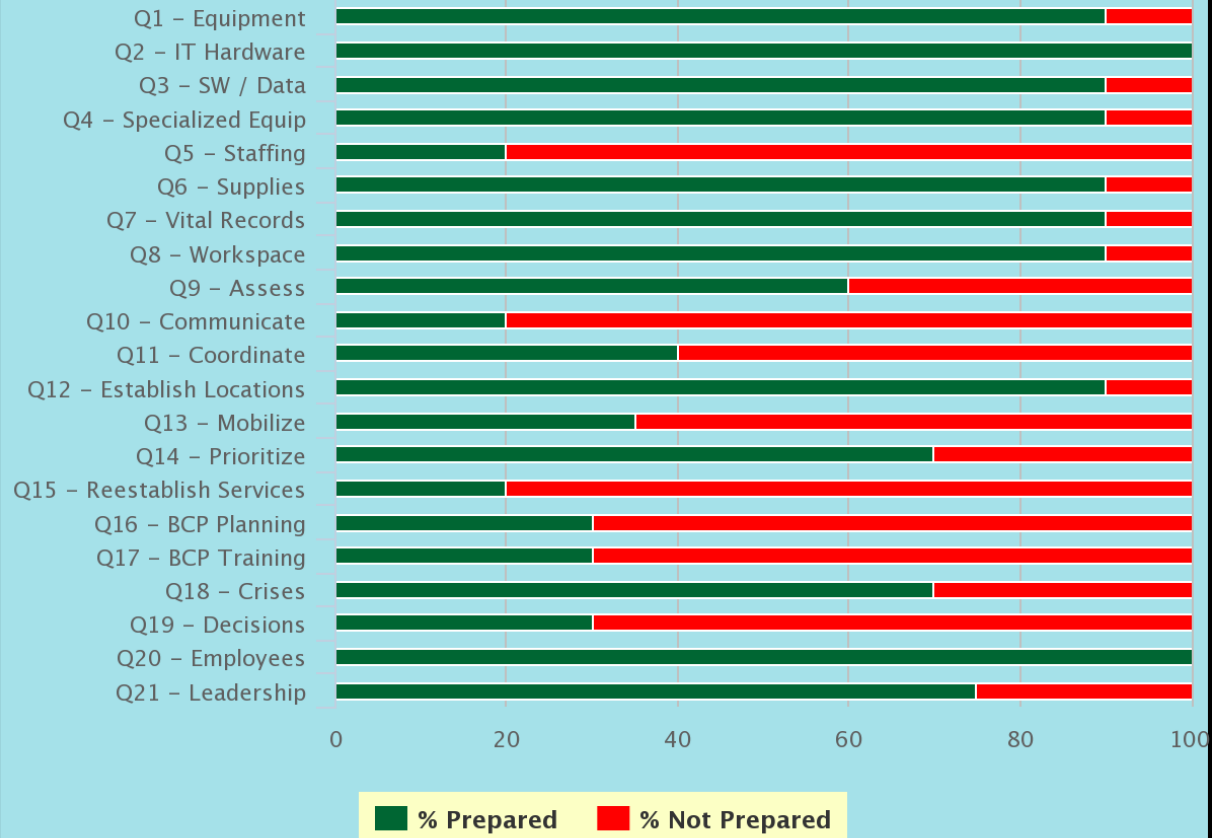
Difference between
100% preparedness and
Actual preparedness =
Post-disaster **COSTS**

Full triangle =
100% preparedness

Drill Down

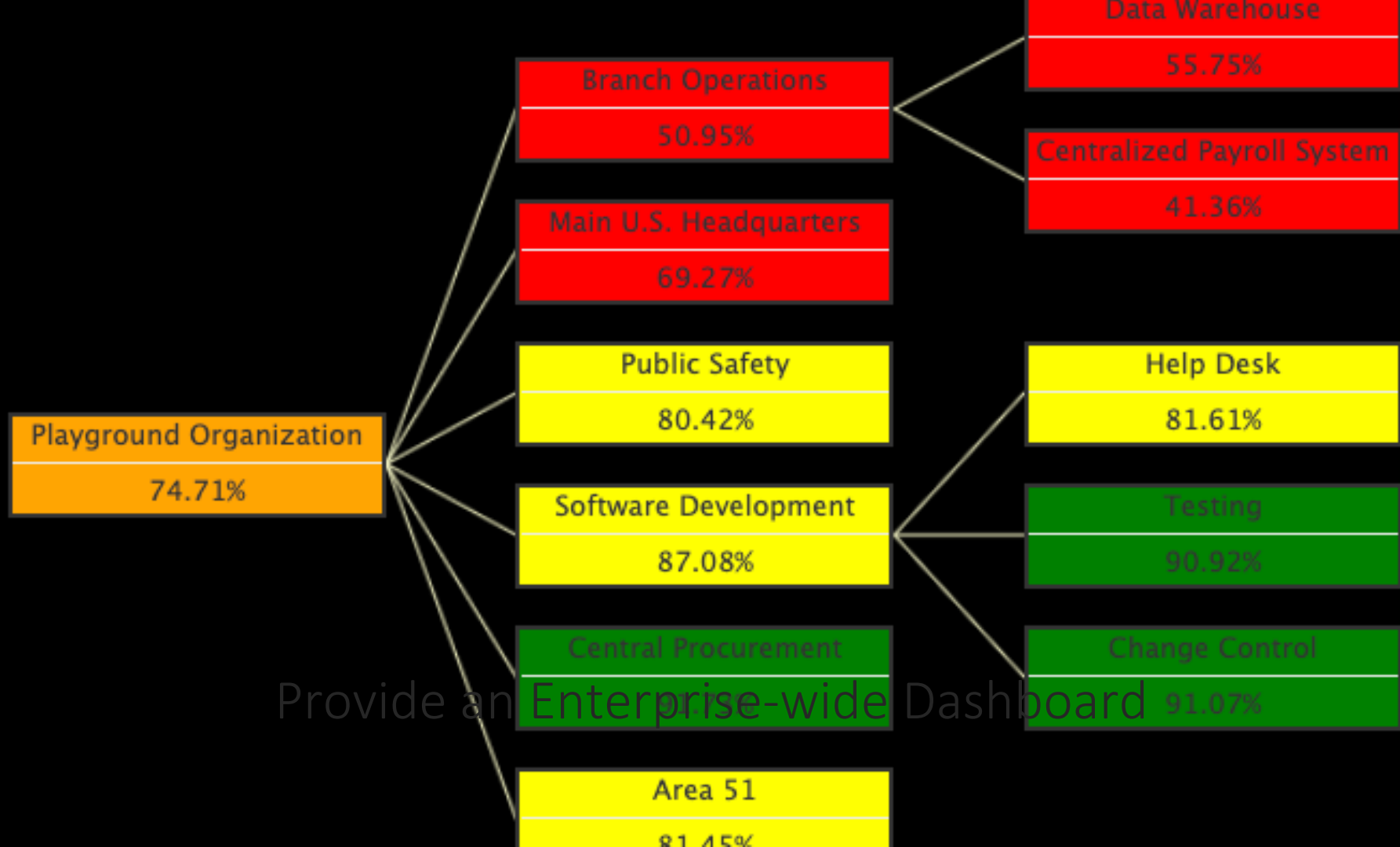


Individual Scores (Mouse-over for more detail)



Compare across Silos

Department	Resources	Procedures	Competencies	Combined
Guest Relations	70%	20%	30%	40%
Guest Registration	25%	60%	95%	60%
Kitchen Services	85%	45%	25%	52%
Administration	70%	100%	45%	72%
Housekeeping	20%	60%	20%	33%
IT	80%	75%	25%	60%
Catering and Banquet	55%	55%	55%	55%
Reservations	15%	77%	60%	52%
Valet	55%	70%	50%	58%
Transportation Services	60%	35%	75%	57%
Gift Shop	50%	90%	75%	72%



Provide an Enterprise-wide Dashboard



Recoverability is NEVER a matter of yes or no

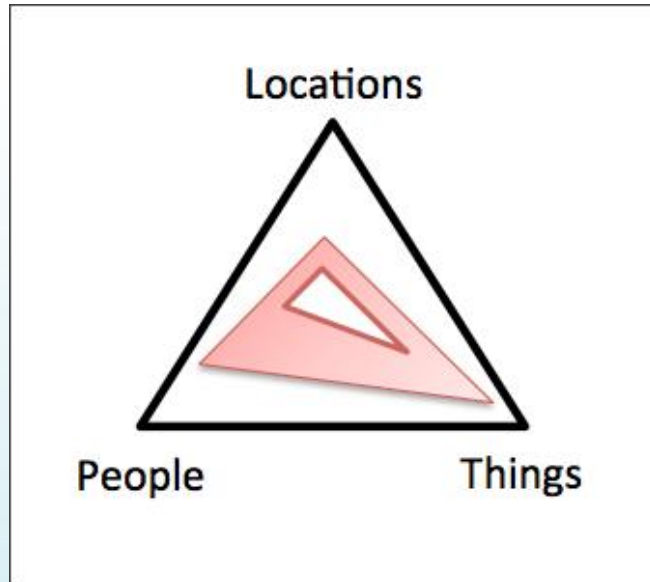
Recoverability is always a matter of **DEGREE!**

A hand in a white glove pulls a red curtain on the left side of the frame. The background is a dark space filled with green and white particles, with a bright green starburst and nebula on the right side.

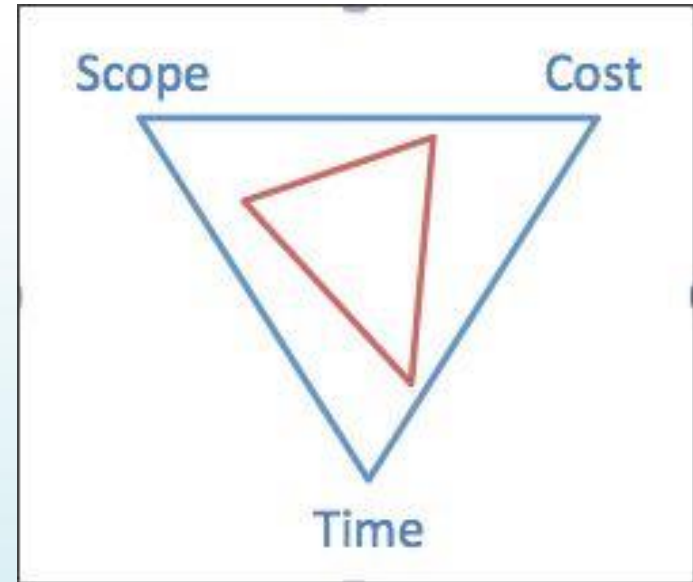
Moving forward gets more complicated...

Constraints to Recoverability

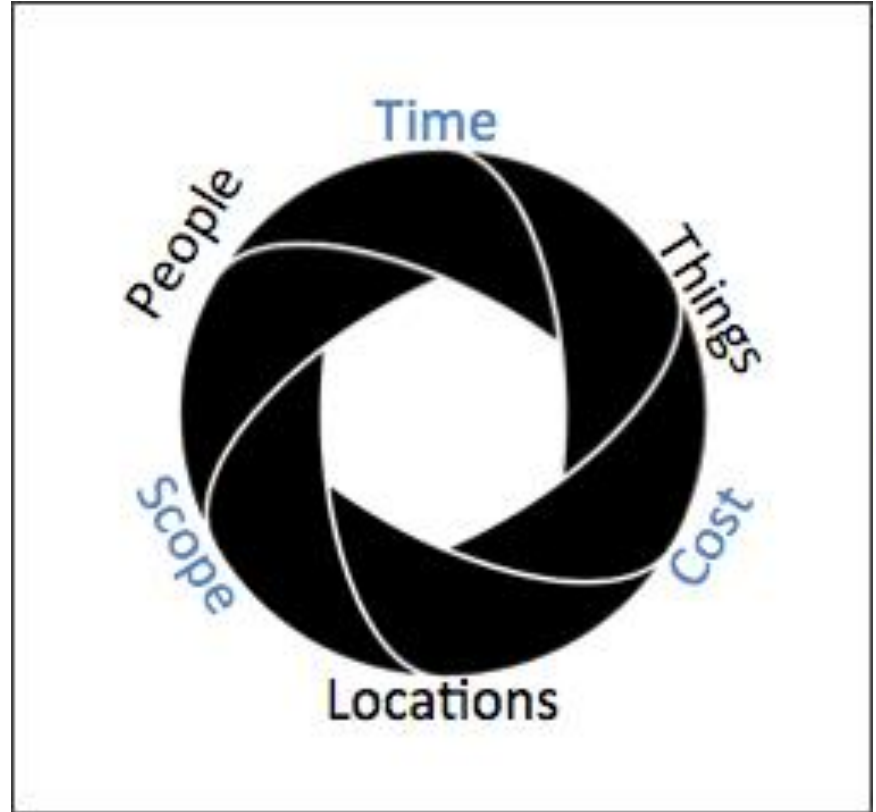
Losses



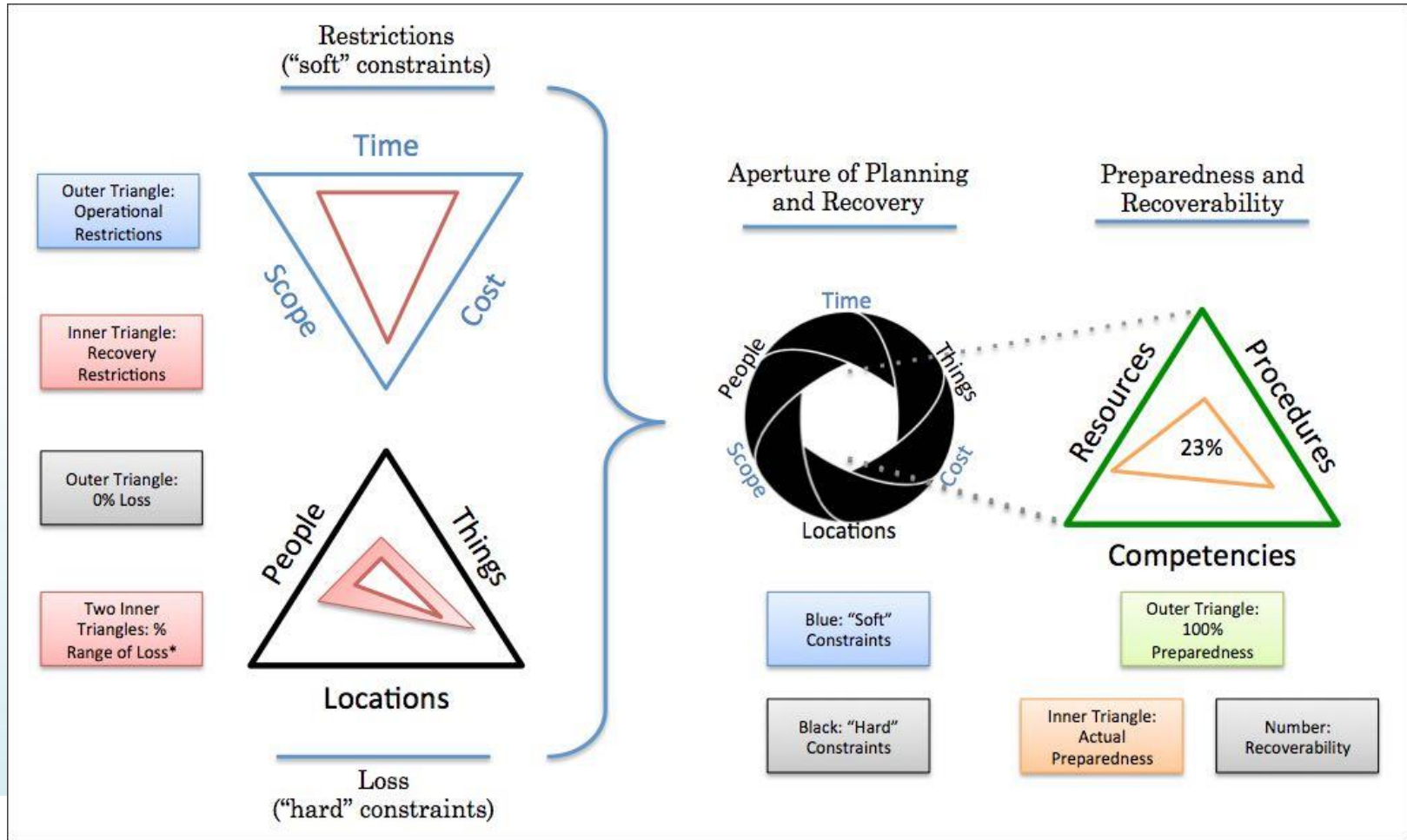
Restrictions



Measurements must be made within an Aperture



Capability and Constraint Model of Organizational Recoverability©



**PART THREE:
Implications
(brief)**



The improved future



Public policy



Targeted investments



Insurance and assurance



COVID19v2 and household preparedness



Decision-making data

Business Continuity as a Science



ARTIFICIAL
INTELLIGENCE



BIG DATA



DATA
ANALYTICS



DEEP
LEARNING

More (empirical) research is needed!

- Increasing accuracy of preparedness measures
 - $(R + P + C) / 3$?
 - $(1.2R + 0.6P + 1.2C) / 3$?
 - Procedures = $(0.9A + 1.2Cm + 1.3Co + 0.7E + 0.9Or + 0.7P + 1.3R) / 7$?
- -> Increasing accuracy of predictions
- -> Better public policy, investments, insurance,
- -> Better protection for our communities!

The possibilities of (empirical) research

Methods

- Prior to disaster
 - Baseline of preparedness before
 - Assessment of impacts after
 - -> Correlation
- Following a disaster
 - Guestimate of preparedness before
 - Assessment of impacts after
 - -> Correlation

Assessment of Impacts

- Existing metrics (pre and post)
 - Brand identification
 - Customer satisfaction
 - Employee timesheets
 - Help desk phone calls
 - Project delays
 - Revenue
 - ServiceNow tickets
 - ...any metrics of value

My ask of you all: Compliance and Regulations

Move from this...

- Counting
- Deliverables
- Detailed instructions
- Linear methods
- Output
- Waterfall
- Yes/no binary

...to this

- Measuring
- Capabilities
- Guiding principles
- Non-linear approaches
- Outcomes
- Agile
- Measures of degree

Resources

- Tool: **ReadinessTest.com**
- Webinars, videos, podcasts, articles:
AdaptiveBCP.org
- White papers and training:
AdaptiveBCS.com

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