



Construction Audit | Building the Future

Universal Opportunities and Challenges of Internal Auditing in the Construction Industry

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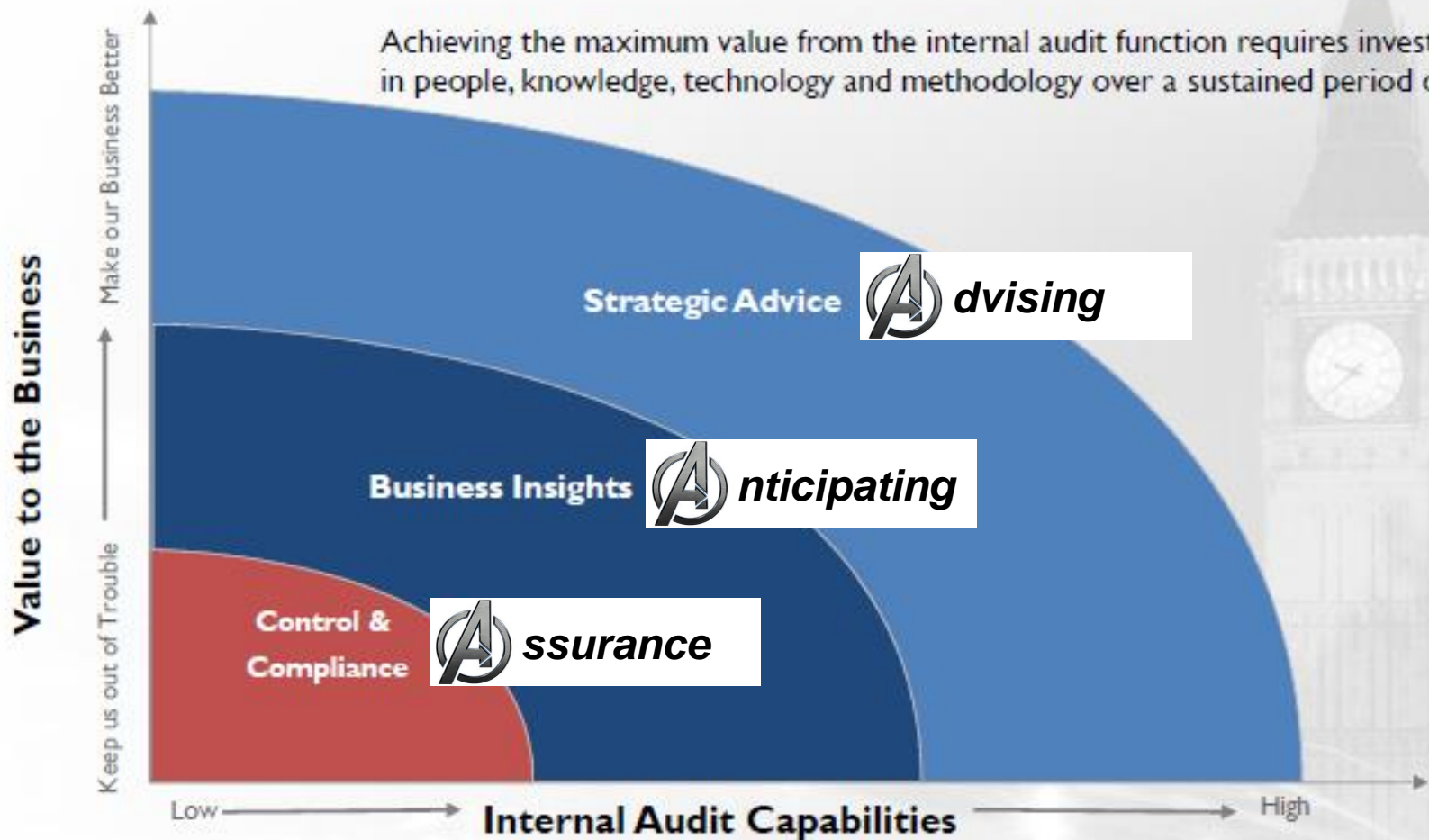
- Internal Audit's Future is Now
- Know your Industry and Customer
- Don't ignore Talent

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The future of internal audit is anchored by the



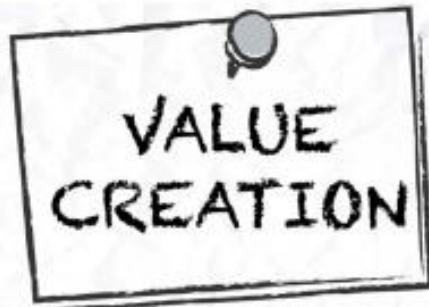
Envision Internal Audit's Future



Communication, Influence and Partnerships

“55% of senior management and 32% of Boards believe that internal audit does not provide significant value”

2014 State of The Internal Audit Profession Study – PwC, March 2014



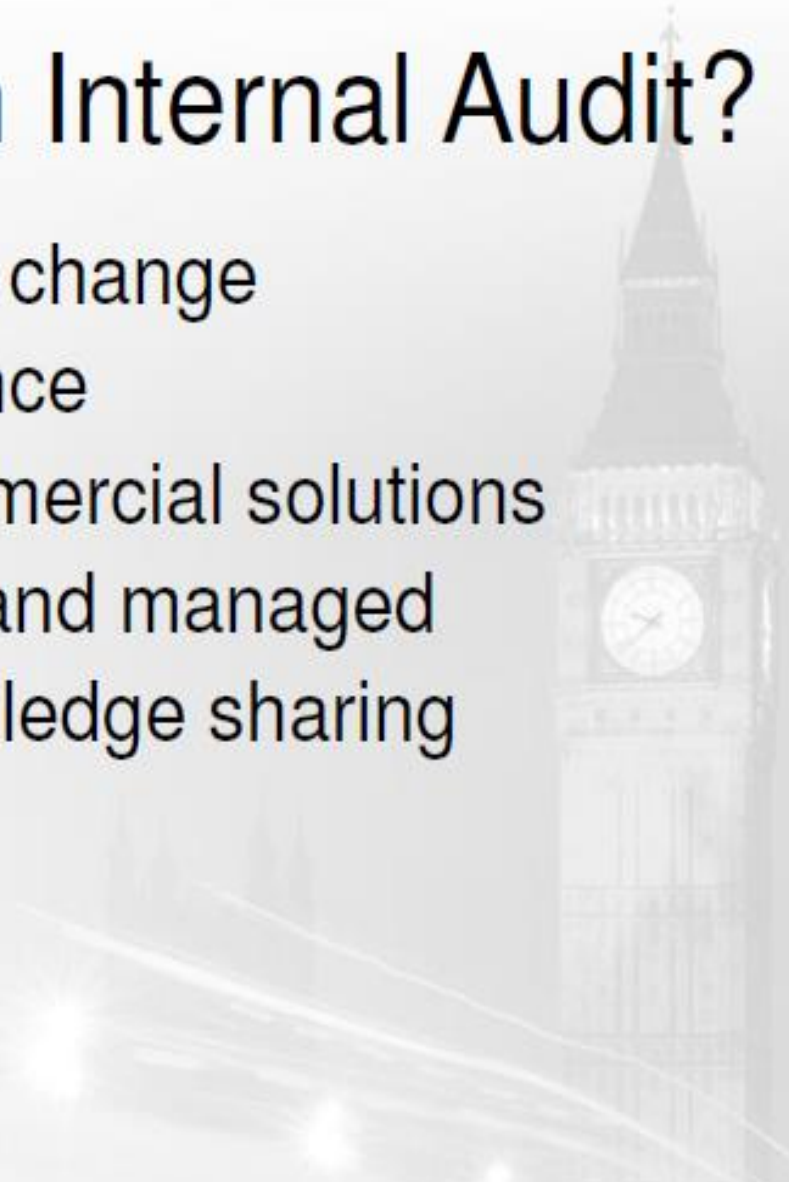
Why Aim for Value?

Building Something That Others Want
(To Invest In)

When perceived as adding value,
our voices are heard, our views
are embraced and we become
catalysts and enablers
for positive change.



What is **Value** in Internal Audit?

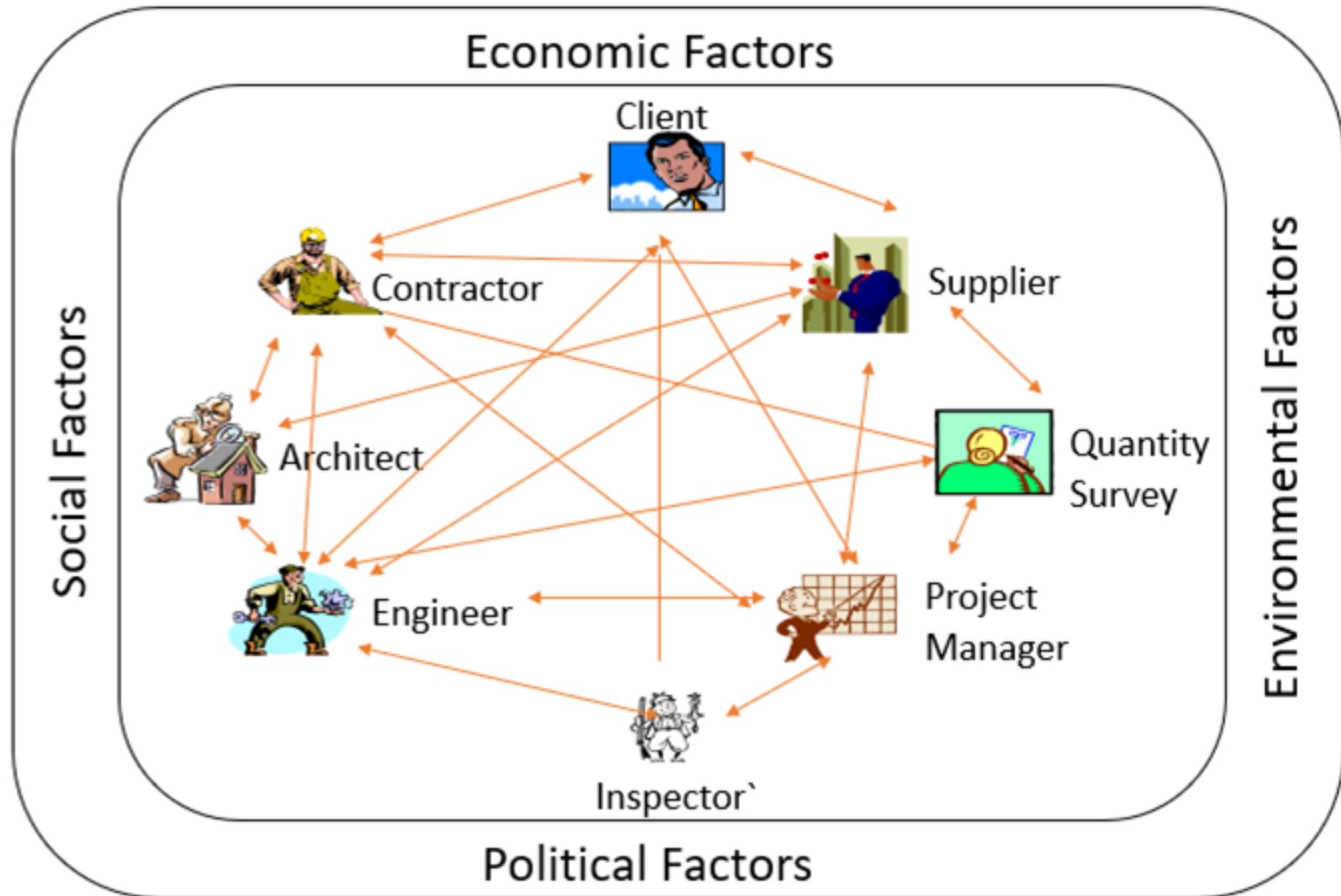
- ✓ Ammunition to drive change
 - ✓ High-quality assurance
 - ✓ Fit-for-purpose commercial solutions
 - ✓ Key risks identified and managed
 - ✓ Education and knowledge sharing
 - ✓ Trusted advice
 - ✓ Meaningful insights
 - ✓ Fulfilling needs
 - ✓ “Service” wrap
- 

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Construction Project Model



TERMINE

COSTS

RISK

QUALITY

SAFETY

SUSTAINABLE



7.39
5.39

MANILA AMONG CITIES FACING BIGGEST ECONOMIC RISKS FROM NATURAL AND MAN-MADE DISASTERS



THE Lloyd's City Risk Index measures the so-called "GDP@Risk" of 279 cities worldwide. The GDP@Risk figure is a projection of how much a city's economic output would be lost annually as a result of threats ranging from natural disasters (such as floods, earthquakes) to man-made disasters (market crash, interstate conflict, cyber attacks, etc.). This is equivalent to the amount that a city should save to deal with such risks. Manila ranked third among cities in the world and second in Asia-Pacific in GDP@Risk. The metropolitan capital risks losing around \$13 billion each year (equivalent to 9.68% of its output annually) with tropical windstorm being the top threat.



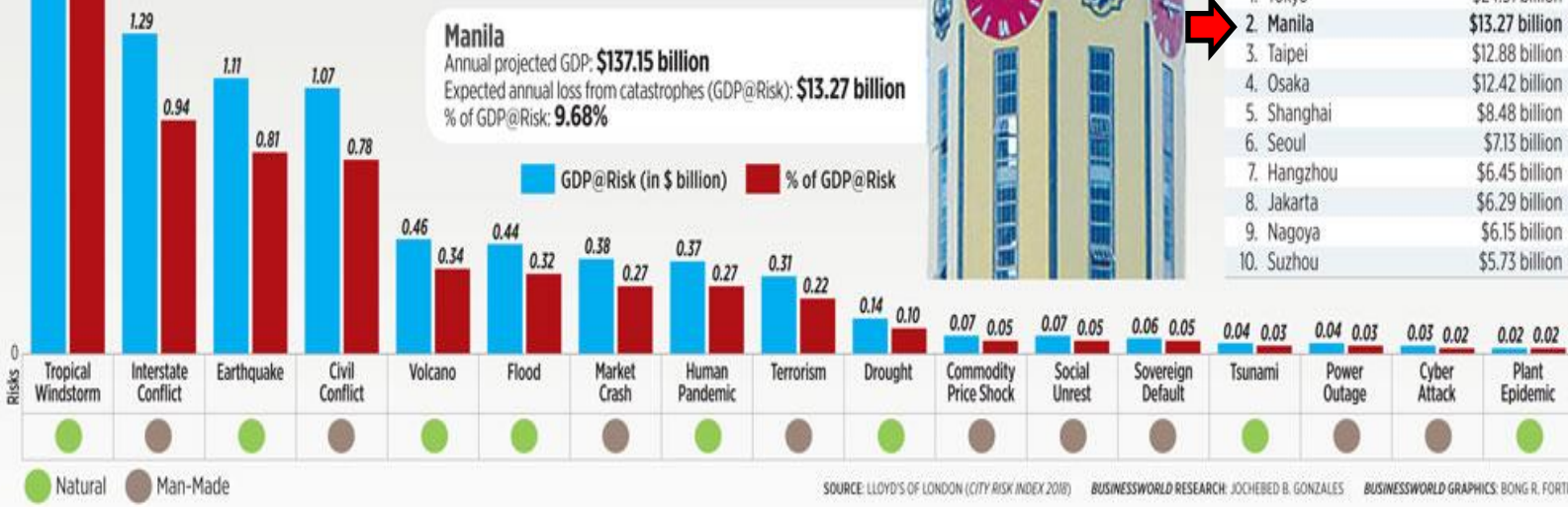
Top 10 cities at risk (global) GDP@Risk

1. Tokyo	\$24.31 billion
2. New York	\$14.83 billion
3. Manila	\$13.27 billion
4. Taipei	\$12.88 billion
5. Istanbul	\$12.74 billion
6. Osaka	\$12.42 billion
7. Los Angeles	\$11.56 billion
8. Shanghai	\$8.48 billion
9. London	\$8.43 billion
10. Baghdad	\$7.91 billion

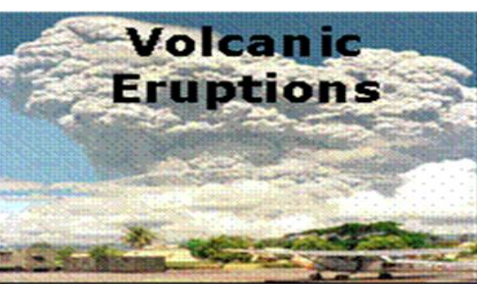
Top 10 cities at risk (Asia-Pacific) GDP@Risk

1. Tokyo	\$24.31 billion
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4. Osaka	\$12.42 billion
5. Shanghai	\$8.48 billion
6. Seoul	\$7.13 billion
7. Hangzhou	\$6.45 billion
8. Jakarta	\$6.29 billion
9. Nagoya	\$6.15 billion
10. Suzhou	\$5.73 billion

Manila
Annual projected GDP: **\$137.15 billion**
Expected annual loss from catastrophes (GDP@Risk): **\$13.27 billion**
% of GDP@Risk: **9.68%**



SOURCE: LLOYD'S OF LONDON (CITY RISK INDEX 2018) BUSINESSWORLD RESEARCH: JOCHEB B. GONZALES BUSINESSWORLD GRAPHICS: BONG R. FORTIN



Volcanic Eruptions



Flood



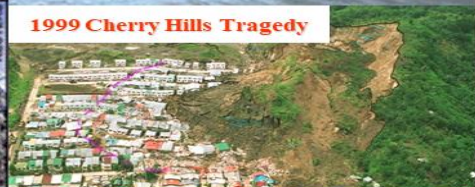
Typhoon



Military Uprising



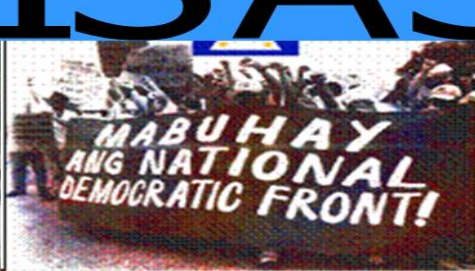
Earthquake



1999 Cherry Hills Tragedy



DISASTERS



FIRE



PHILIPPINES: MAJOR EARTHQUAKE



POLITICAL UPHEAVAL



1990 Earthquake Baguio (1,621 killed)



Source: Google images

1814 Mayon Volcano Albay (1,200 killed)
1911 Taal Volcano Luzon (1,300 killed)

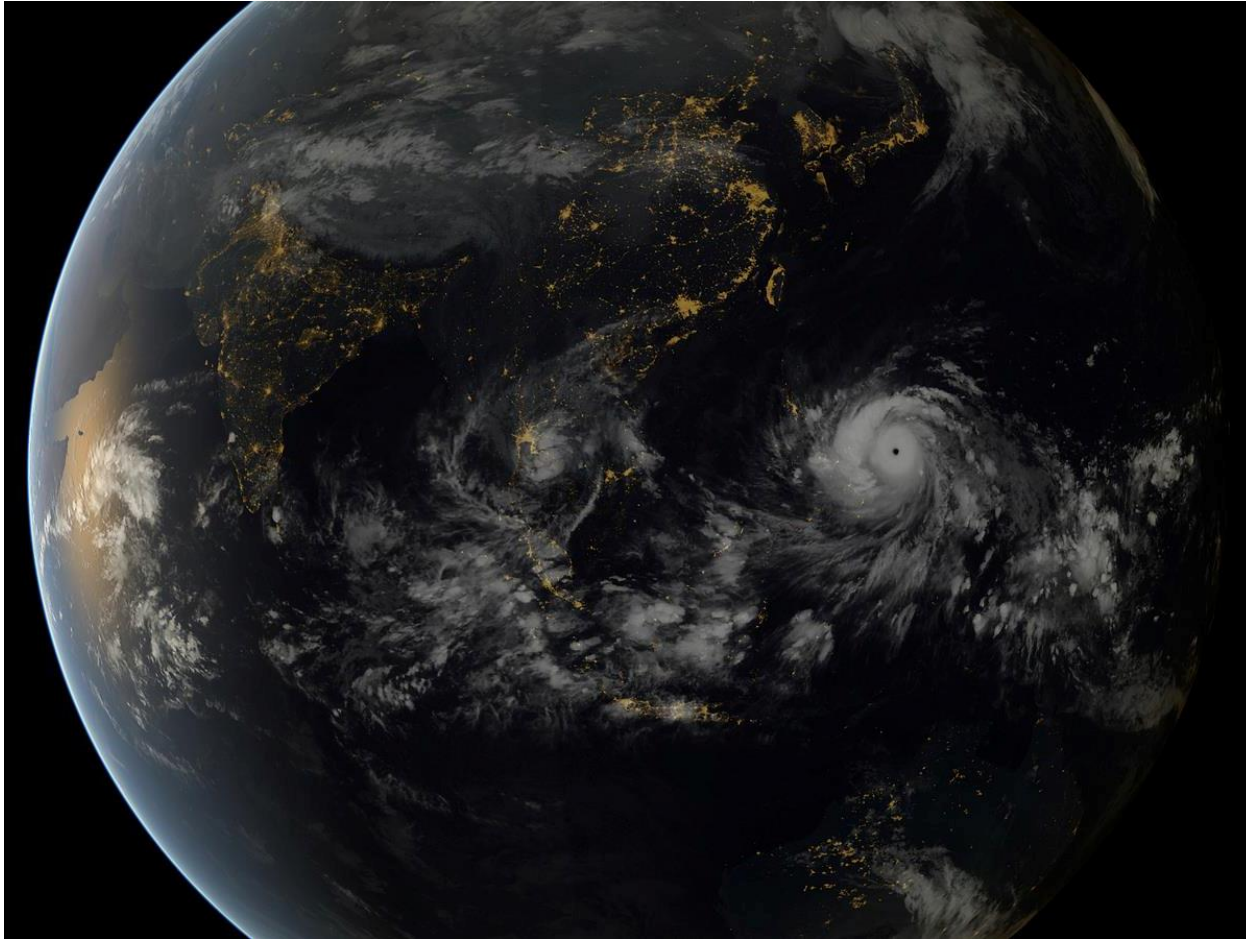


Source: Google images

2013 Typhoon “Yolanda” (6,241 killed and missing)



Source: Google images

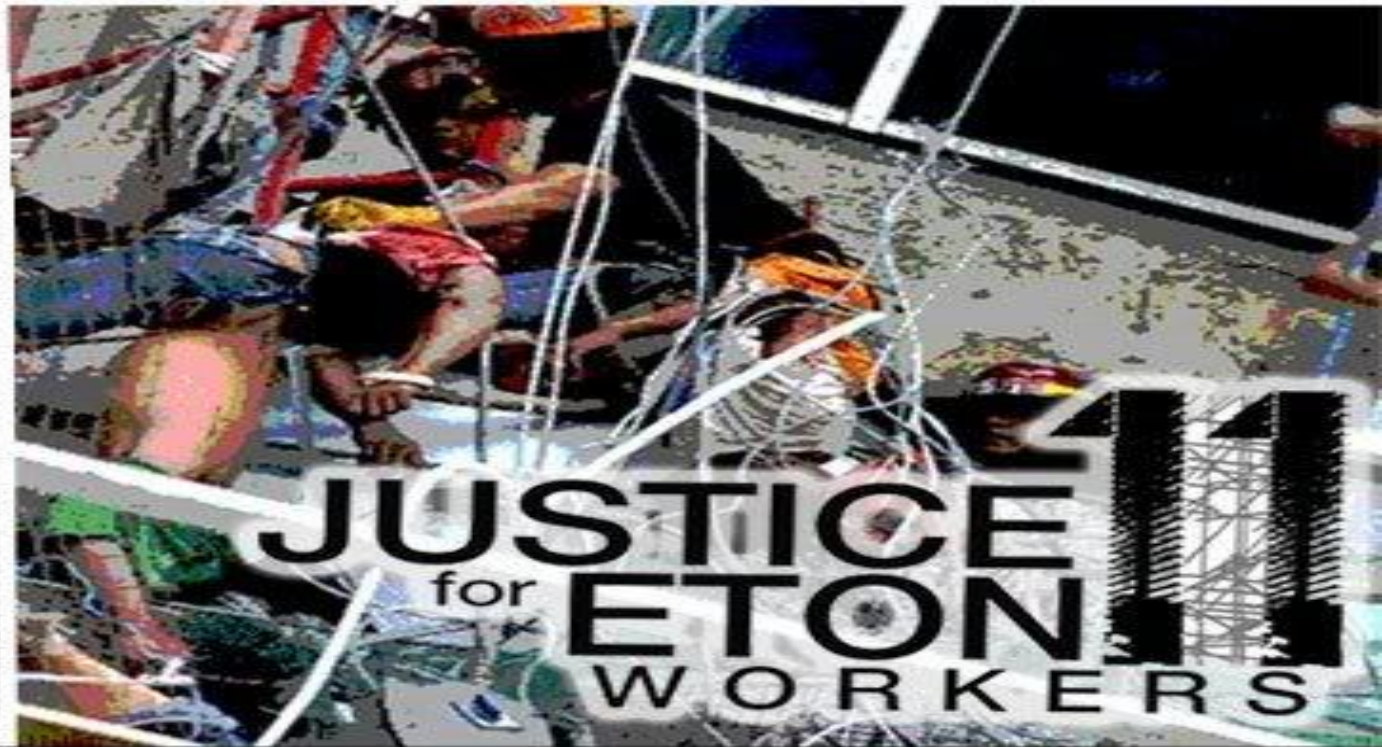


TYPHOON YOLANDA SPACE PHOTO

Source: Google images

1.27.2011: Eton tragedy

**We will not forget.
We will continue to fight!**



FB: Justice for Eton 11 | www.eton11.tumblr.com

What disaster do you think this developments can bring?



IT Auditing is the way forward

Pre-fabrication & modular construction **1**

Advanced building materials **2**

3D printing & additive manufacturing **3**

Autonomous construction **4**

Augmented reality & virtualization **5**

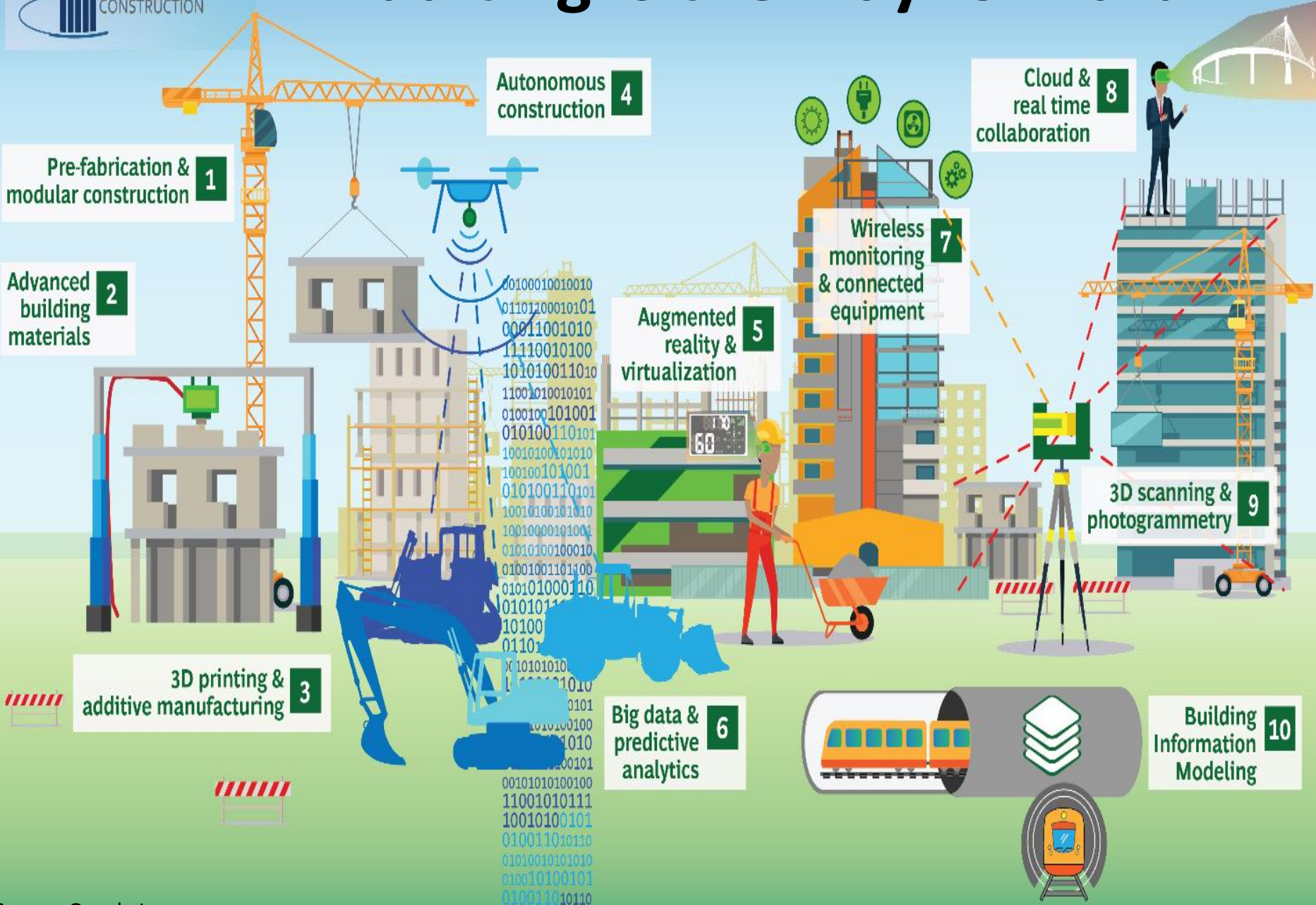
Big data & predictive analytics **6**

Wireless monitoring & connected equipment **7**

Cloud & real time collaboration **8**

3D scanning & photogrammetry **9**

Building Information Modeling **10**



Customer Intimacy and Centricity

Customer Intimacy and Centricity

First and Foremost:

**Who is the
Customer?**

Customer Intimacy and Centricity

We are in the Business of “Serving” ...



Make your “service” great!

Customer Intimacy and Centricity

How?... Know them, focus on them



CUSTOMER



Fulfil their needs...
It is about them, not us

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Can you afford to ignore talent?



The ideal Internal Auditor?



... has a loud voice
To voice our concerns, we must ensure that our suggestions get heard

... has imagination
Envision a business environment that does not yet exist, and provide advice on risks and controls that cannot actually be seen or touched

... is career motivated
Companies reach out for people with broader skill-sets and backgrounds, in addition to audit expertise – we are not “just” Internal Auditors

... does not only think outside the box, but gets out of the box, questions why we are in that box and kicks the sides!



The ideal Internal Auditor

... is comfortable with principles versus rules
Define your own way of the “how” to achieve the “what”

... is an adviser/consultant as much as an auditor
Requires excellent soft skills as well as deep business/technical knowledge.

... is mobile
The world is yours, with all its business areas, functions, countries and cultures – make it fit into your plans

... has Fraud/Investigation expertise
Fraud prevention and detection are key focus areas for internal auditors

... is a re-engineer
Efficiency considerations are basic component of our professional work; we get involved in operational transformation

... knows when and how to rely on others
We can rely on other assurance providers rather than doing all detailed work ourselves

... diverse and a global citizen
Comfortable at working with other cultures and engaging with a wide range of stakeholders

... handles ambiguity well
Surf on the wave of change

... is relaxed
Managers will need to relax control over subordinates and auditors should be comfortable being empowered



The ideal Internal Auditor

... is IT proficient
IT and basic IT Audit skills are basic key competence

... blows up old audit models
Replace with "plug and play audits", i.e. a common high level approach and flexible task level methodologies

... is a risk taker
There is no reward without risk – embrace change! If you don't make mistakes, you are probably not advancing

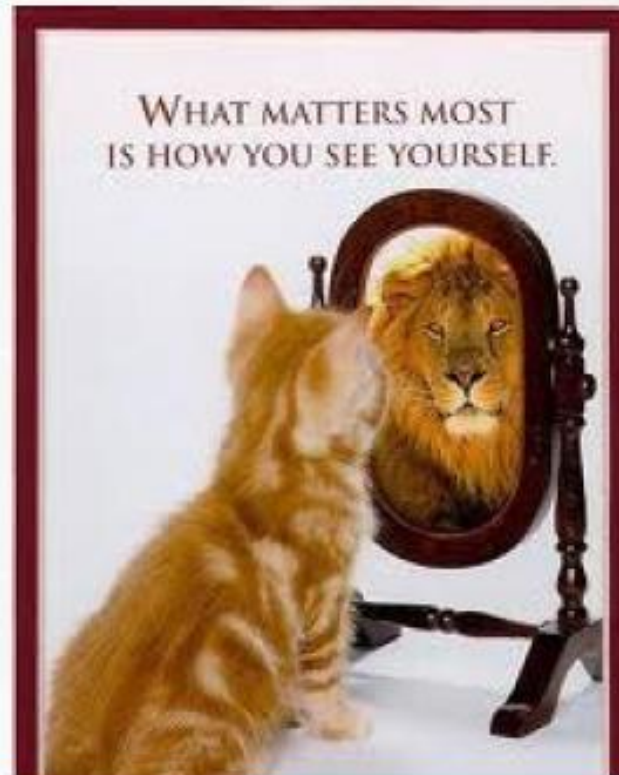
... provides real-time assurance & advice.
Both require short turn-around time and highly qualified staff

How do we get and develop the talent we need?



Finally...

Believe in yourself, others will follow!



Know your worth, claim your value

Thank you for your participation!

Contact Information:

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