



**BarnOwl**

**SA Cyber  
Opportunity &  
Threat  
Landscape**

**Craig Rosewarne  
(Wolfpack Information Risk)**







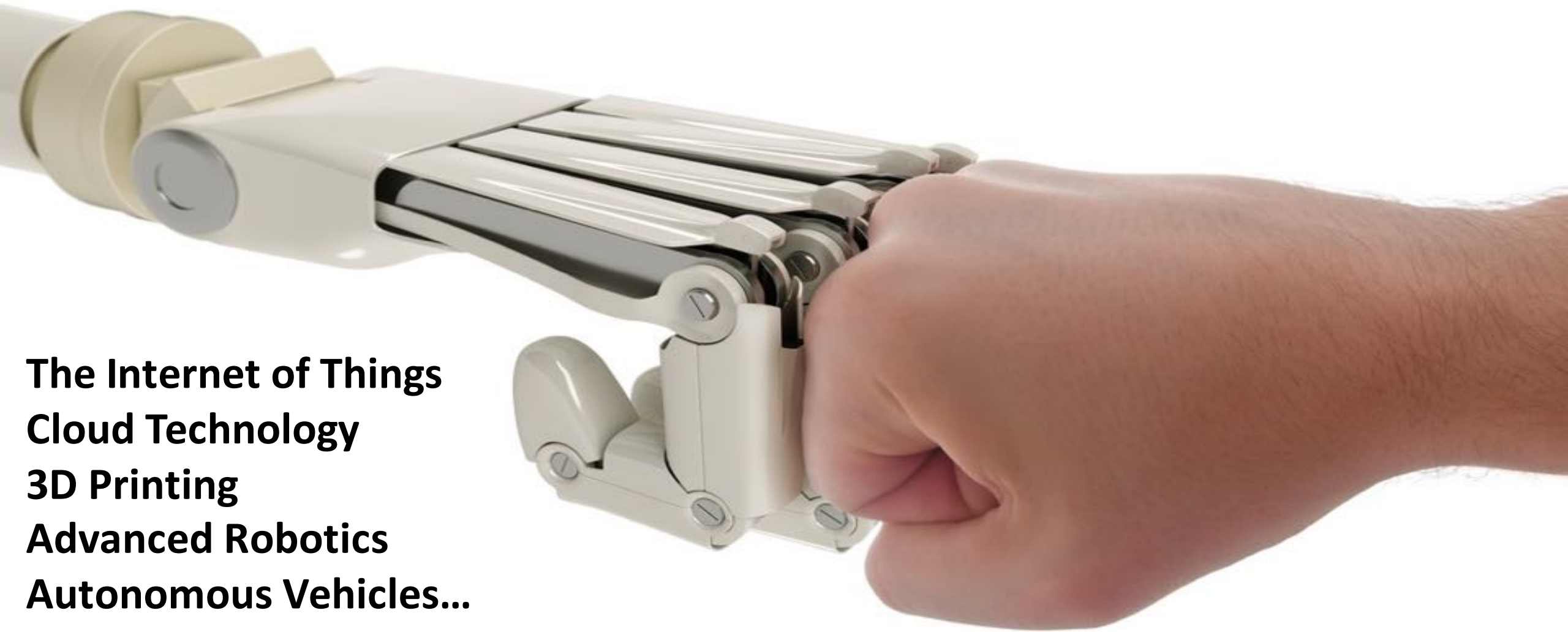


**393** (Q1 2015)

**1215** (2014)

**1004** (2013)





**The Internet of Things**  
**Cloud Technology**  
**3D Printing**  
**Advanced Robotics**  
**Autonomous Vehicles...**







*“Humans will become hybrids in the 2030s. That means our brains will be able to connect directly to the cloud via nanobots, and those computers will augment our existing intelligence.”*

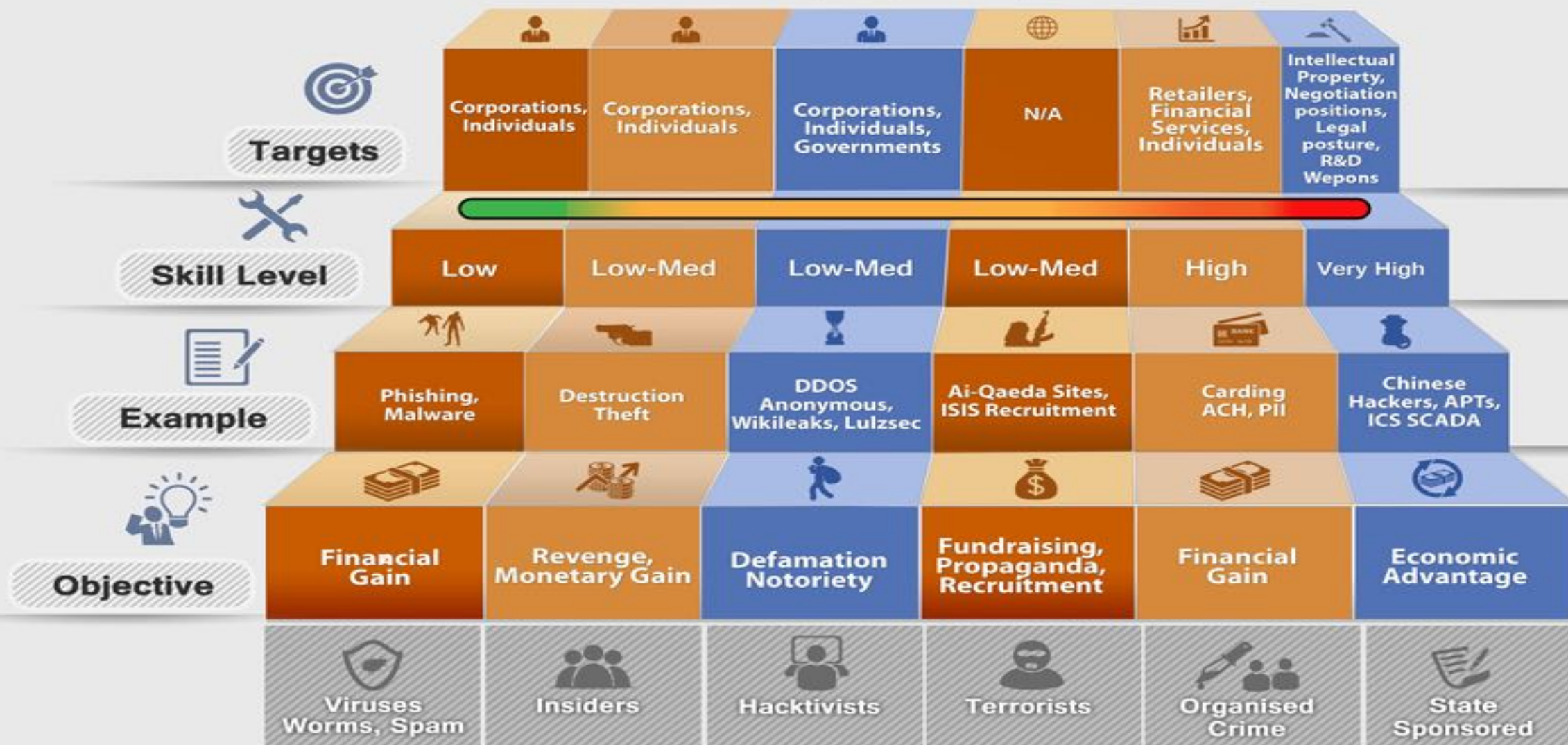
(Ray Kurzweil - Director of engineering at Google)

**TERMINATOR**  
G E N I S Y S

# CATEGORIES OF THREATS



**CYBERRISK**  
INTERNATIONAL  
ASSESS | DESIGN | TRANSFORM | SUSTAIN







**CYBER ATTACK**

DEFINED  
SECURITY HACKERS  
DOCUMENT VICTIM  
WAY TRAFFICKING  
MALICIOUS  
TOPOLOGY  
VARIETY  
RESOURCES SURROUNDING  
THEFT  
HATE  
INFORMATION  
ELECTRONIC  
TRAFFICKERS  
CITATION TRADES  
DIRECTLY  
HARM  
ORGANIZED DOCUMENTED  
BOTNET TECHNOLOGY  
MILLION  
SCAMS RACE  
SYSTEMS INCREASINGLY  
ALTERING CHILD  
DRUG  
COMMUNICATIONS  
TERRORISM  
ILLLEGAL  
UNIVERSITY INCLUDED CONCERN  
ALLEGEDLY NETWORK MAJOR  
ROOMS DISTRIBUTED DETECT  
OFFENSIVE  
RING  
HIGH  
CAUSE PEOPLE  
GROUP  
USED  
ANTH  
ANALYZE  
REFERS  
ACCORDING SPECIFIC ACTIONS  
FACE WELL  
UNSOLEICITED  
SYSTEM SPAM  
COUNTS DEVICES  
INTERNET  
ACTIVITIES TARGET  
DATA  
SERVER FEDERAL  
CASES  
INCLUDING  
CYBERTERRORISM  
WEBSITES  
ACCESS COMMITTED  
FINANCIAL  
STALKING COMPANIES OFFICIALS  
LIMITS INFECTED  
INDIVIDUAL  
ALLOW TIME  
PHYSICAL  
DEFENSE  
UNLAWFUL  
INDIVIDUAL  
IDENTITY  
PROBLEMS  
NEEDED STORED  
ENCRYPTED  
MAJOR CONCERN  
RING  
MAJOR CONCERN  
DISTRIBUTED  
DETECT  
OFFENSIVE  
RING  
HIGH  
CAUSE PEOPLE  
GROUP  
USED  
ANTH  
ANALYZE  
REFERS  
ACCORDING SPECIFIC ACTIONS  
FACE WELL  
UNSOLEICITED  
SYSTEM SPAM  
COUNTS DEVICES  
INTERNET  
ACTIVITIES TARGET  
DATA  
SERVER FEDERAL  
CASES  
INCLUDING  
CYBERTERRORISM  
WEBSITES  
ACCESS COMMITTED  
FINANCIAL  
STALKING COMPANIES OFFICIALS  
LIMITS INFECTED  
INDIVIDUAL  
ALLOW TIME  
PHYSICAL  
DEFENSE  
UNLAWFUL  
INDIVIDUAL  
IDENTITY  
PROBLEMS  
NEEDED STORED  
ENCRYPTED  
MAJOR CONCERN  
RING  
MAJOR CONCERN  
DISTRIBUTED  
DETECT  
OFFENSIVE

GROUPS  
KINETIC  
INTERNATIONAL  
CONTENT  
SERVICES  
ADVANTAGE  
INDIVIDUAL  
NATION USING  
COPYRIGHT  
FUTURE  
TECHNICAL  
COMBATTING  
SENDING MAIL  
NEEDED STORED  
ENCRYPTED  
UNLAWFUL  
PHYSICAL  
DEFENSE  
UNLAWFUL  
INDIVIDUAL  
IDENTITY  
PROBLEMS  
NEEDED STORED  
ENCRYPTED  
MAJOR CONCERN  
RING  
MAJOR CONCERN  
DISTRIBUTED  
DETECT  
OFFENSIVE



**ASHLEY  
MADISON®**  
Life is short. Have an affair.®

Get started by telling us your relationship status:

Please Select

[See Your Matches »](#)

Over **37,890,000** anonymous members!



] Hacking Team [



OPM.GOV

[ABOUT](#) [POLICY](#) [INSURANCE](#) [RETIREMENT](#) [INVESTIGATIONS](#) [AGENCY SERVICES](#) [NEWS](#)

Office of Personnel Management

GETTING AMERICA'S WORK DONE

## Our People & Organization

Making the Federal government America's model employer for the 21st century. [Learn More](#)



**WOLF**  **PACK**

[OPM.gov Menu](#) / [Home](#)

[IN THIS SECTION](#)

[OUR AGENCY](#)

[TOP 10 TASKS](#)



**Where to start?**

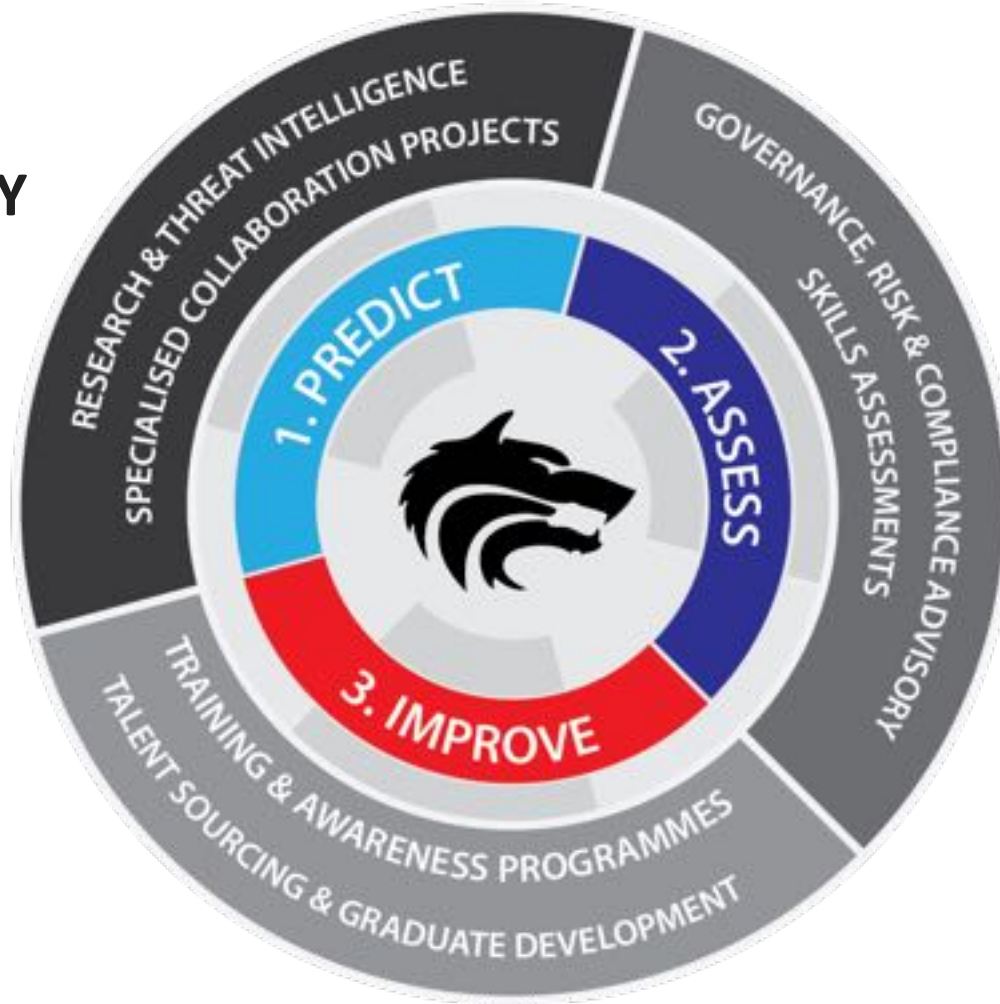


# 1. UNDERSTAND - BUILDING A RISK AWARE ORGANISATION

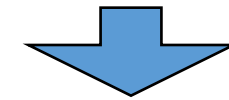
## 1. ANALYSE

### THE THREAT / OPPORTUNITY

- GLOBAL
- COUNTRY
- INDUSTRIES
- ORGANISATION



## 2. ASSESS YOUR WEAKNESS / STRENGTH

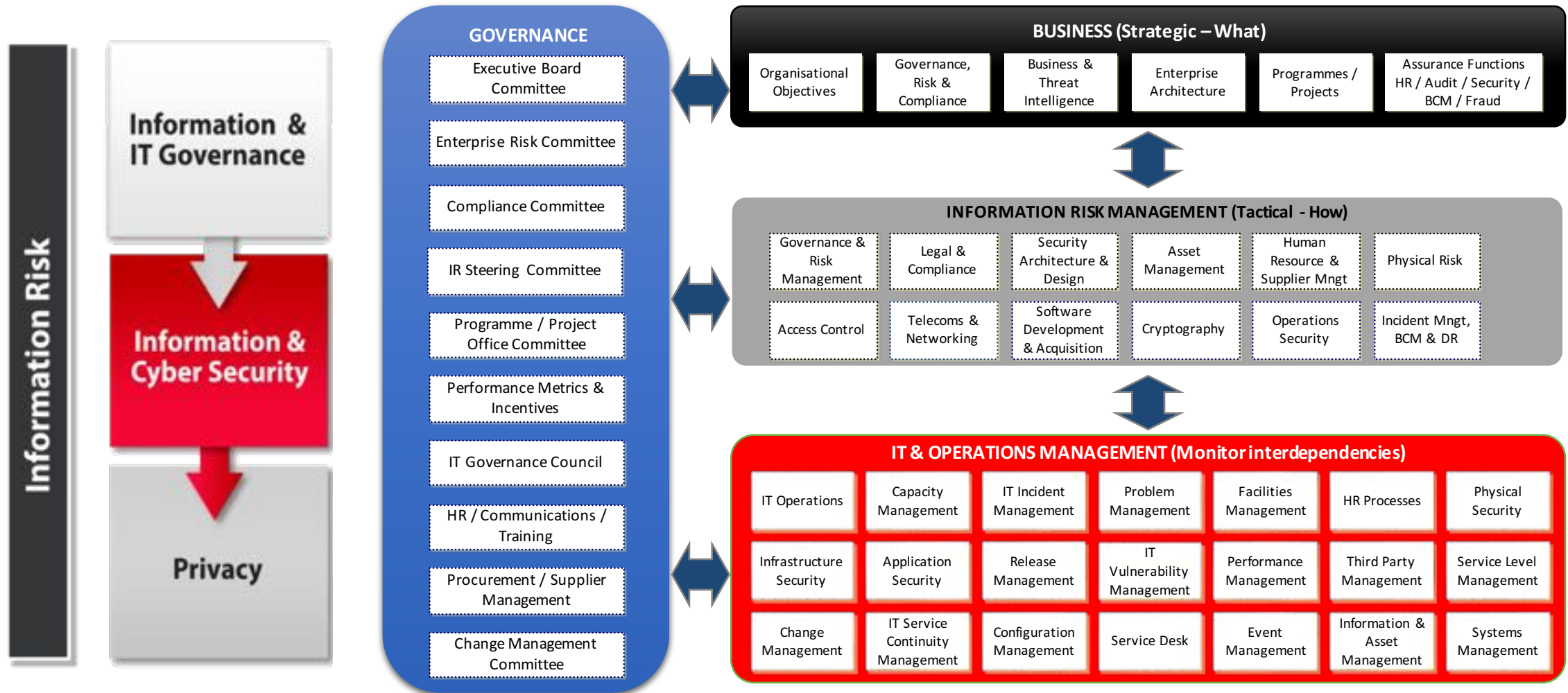


- PEOPLE
- PROCESS
- TECHNOLOGY



## 3. IMPROVE YOUR CAPABILITY

# 2. ESTABLISH ORDER - INFORMATION RISK FRAMEWORK





# 3. REMEDIATE - ENSURE RISK APPROACH IS INTEGRATED

**RISK MANAGEMENT**  
(ISO 31000)

**GOVERNANCE**  
(KING3 / ISO 38500  
/ COBIT)

**INFORMATION  
& CYBER SECURITY**  
(ISO 27001/2/5  
/ ISO 27032 / SANS 20CC)



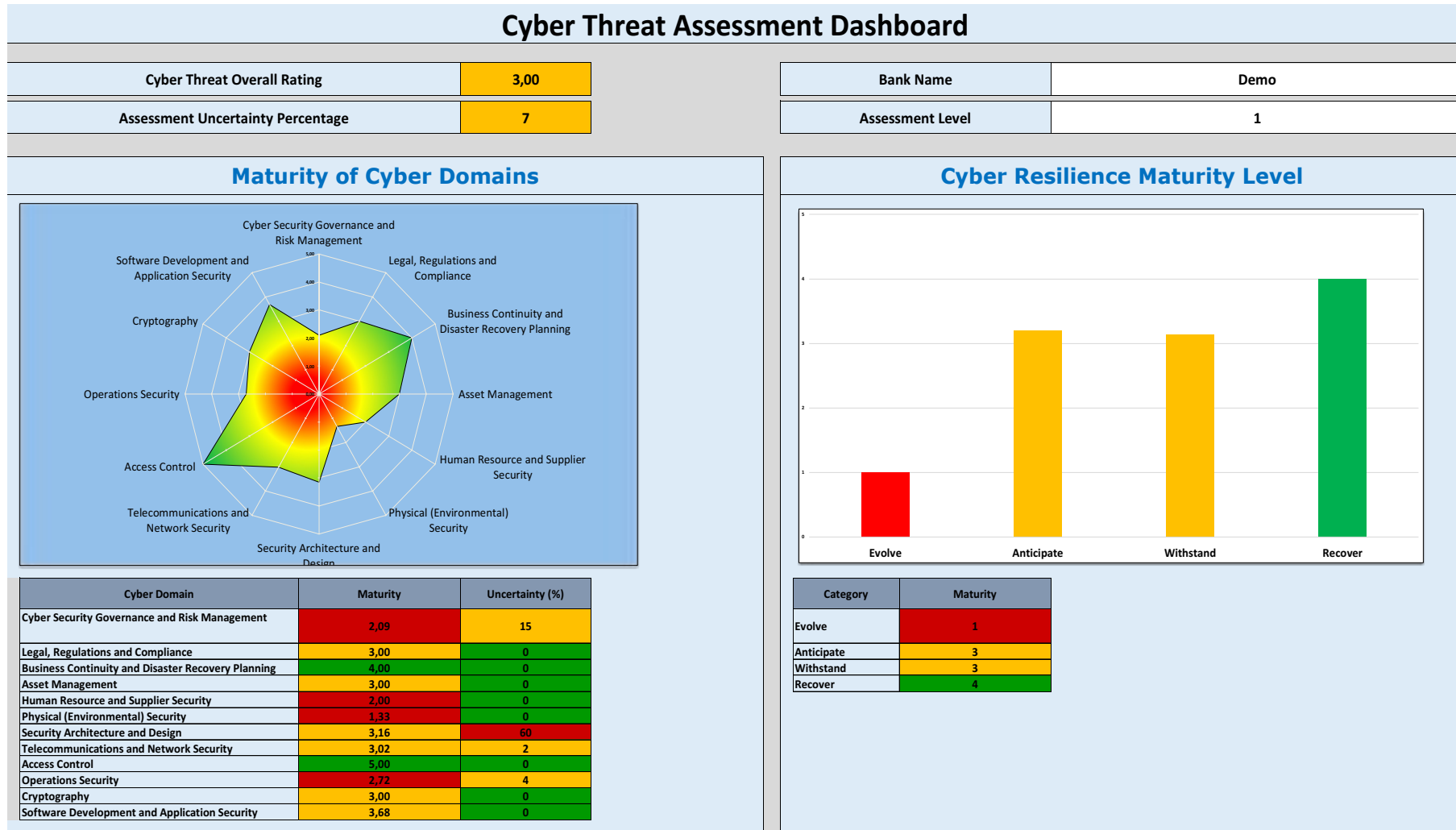
**CRISIS  
MANAGEMENT**

**BCM /DR**  
(ISO 22301)

**INCIDENT  
MANAGEMENT**  
(ISO 27035)

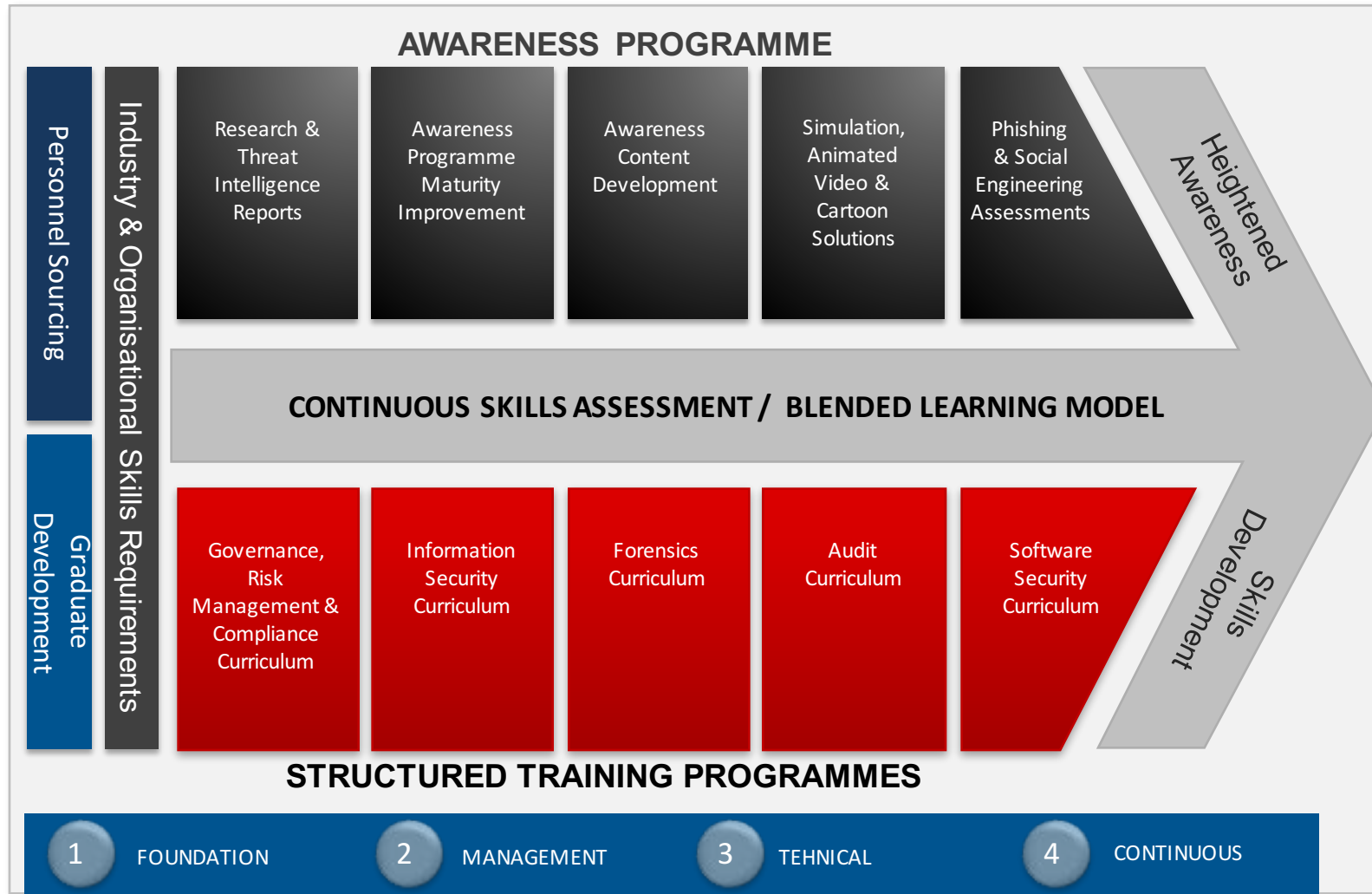
**IT OPERATIONS**  
ITIL / ISO 20000

# 4. CONTINUOUS IMPROVEMENT – TEST, AUTOMATE & CERTIFY

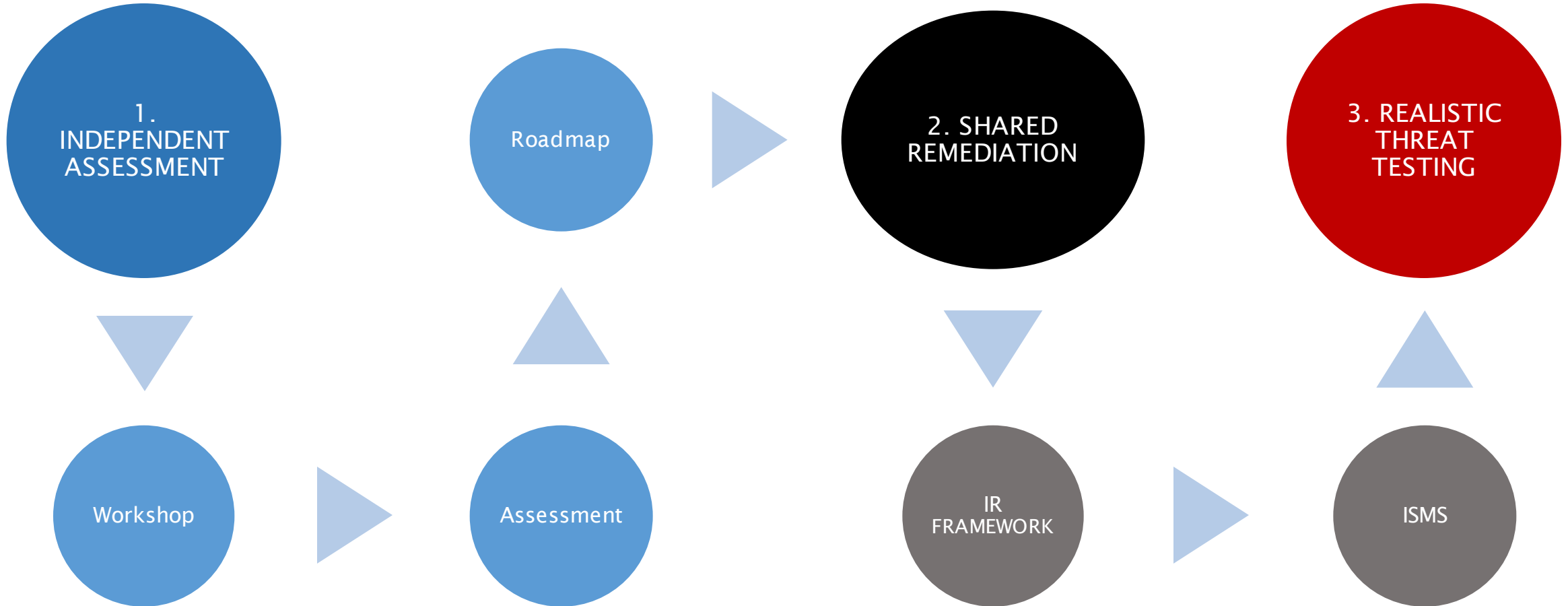




# 5. SKILL UP – BUILD CAPABILITY



# SUGGESTED APPROACH





# COMMUNITY INITIATIVES



**9500+** CYBER  
SECURITY COMMUNITY

# GLOBAL THREAT & OPPORTUNITY ECOSYSTEM

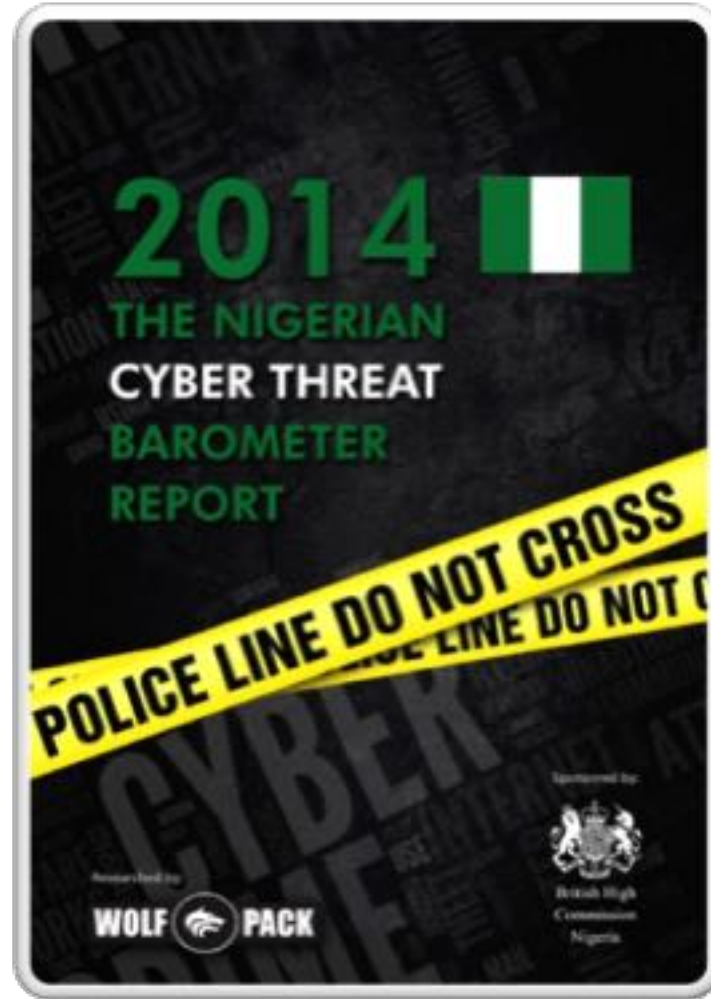
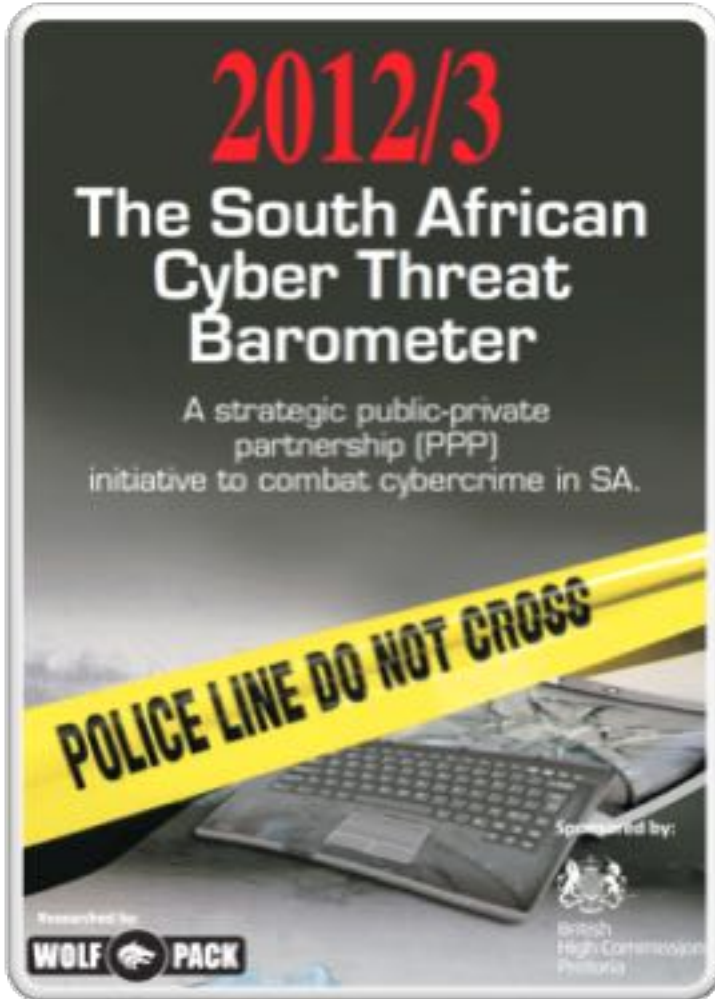




# SA NATIONAL CYBERSECURITY STAKEHOLDERS & STRUCTURES



# NATIONAL FOCUS AREAS



1. AWARENESS
2. SKILLS
3. CIIP
4. CYBER CRIME
5. LEGAL

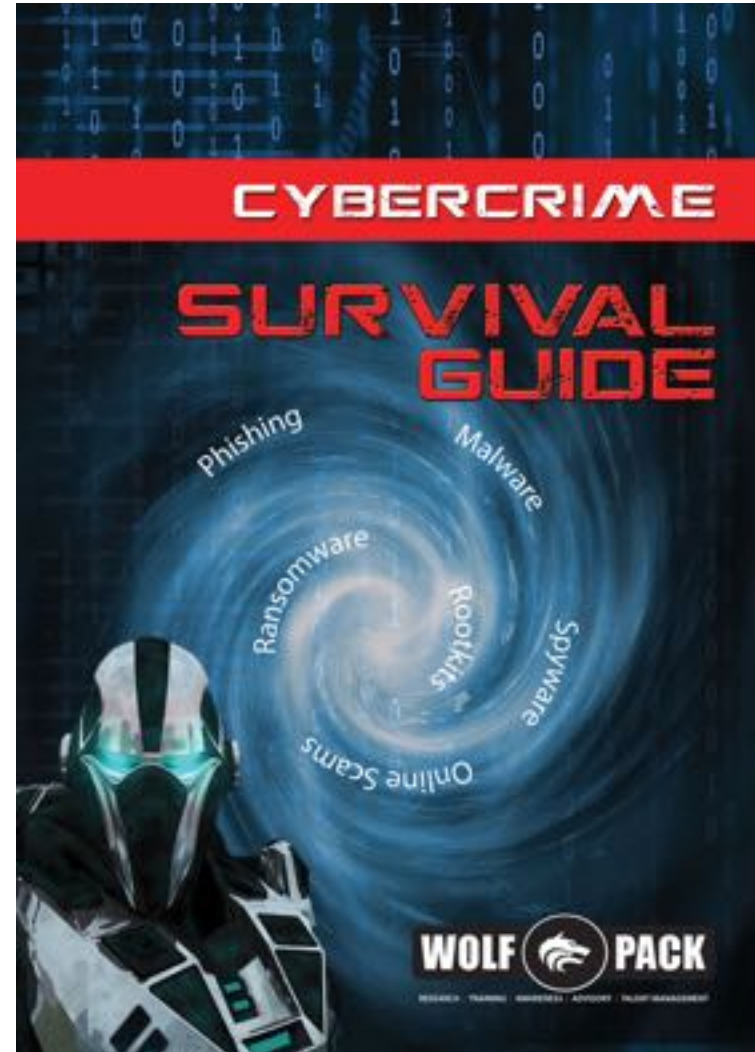




# NATIONAL AWARENESS PORTAL



<http://www.alertafrica.com>

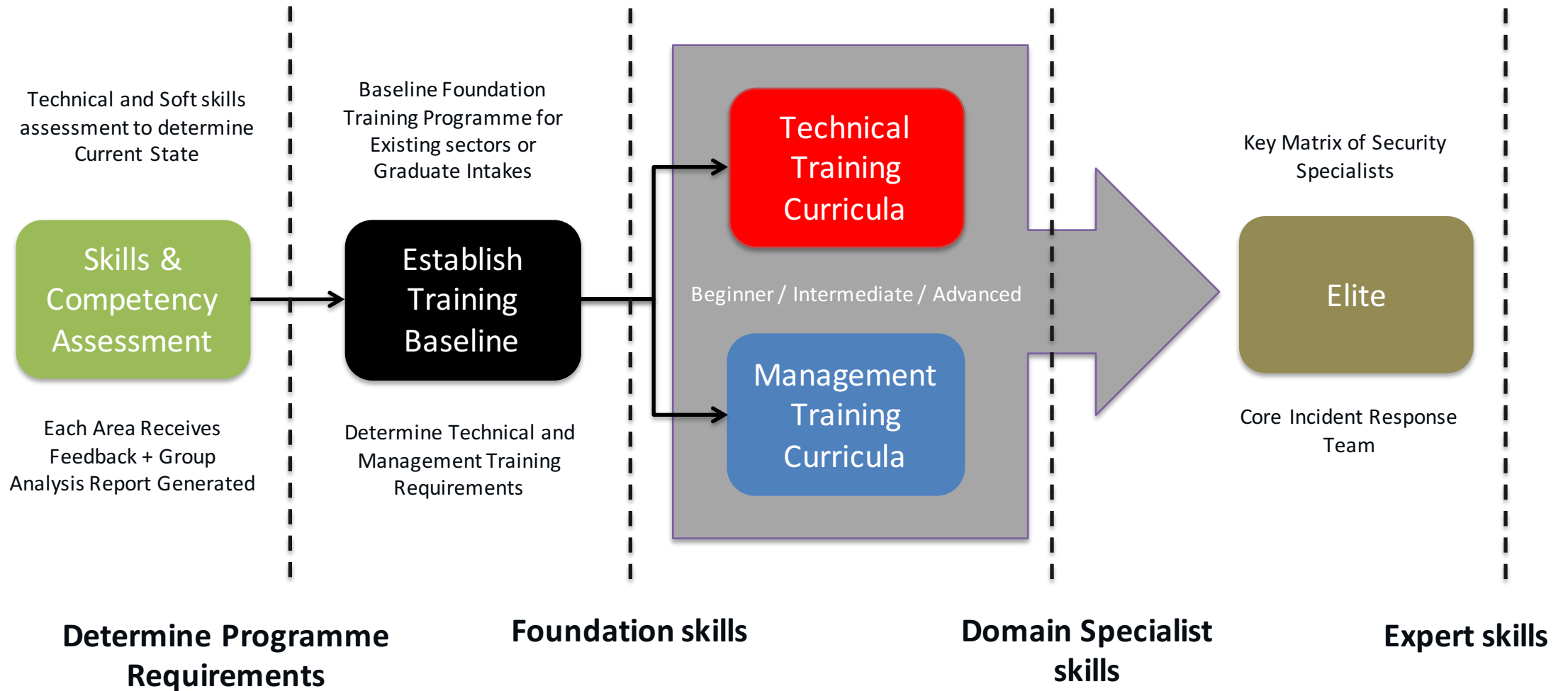


# CYBER SECURITY AWARENESS MONTH

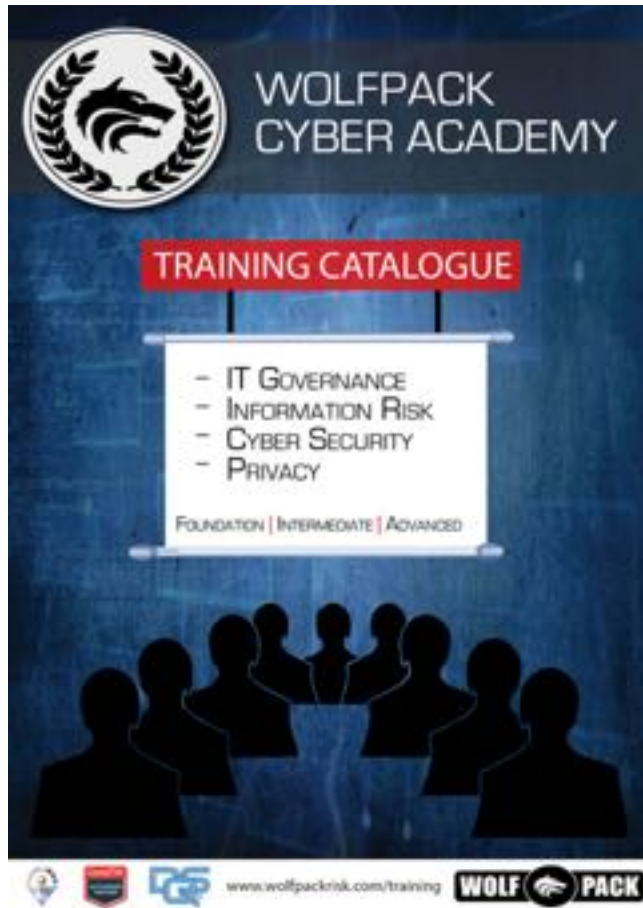




# GOVERNMENT CYBER ACADEMY PROGRAMME



# SKILLS TRANSFER



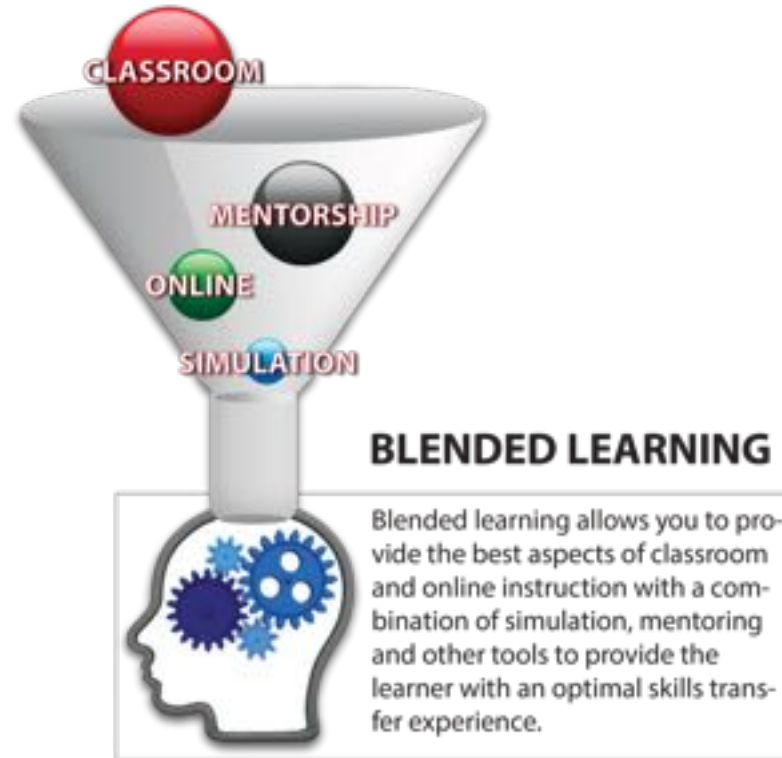
**WOLFPACK CYBER ACADEMY**

**TRAINING CATALOGUE**

- IT GOVERNANCE
- INFORMATION RISK
- CYBER SECURITY
- PRIVACY

FOUNDATION | INTERMEDIATE | ADVANCED

[www.wolfpackrisk.com/training](http://www.wolfpackrisk.com/training) **WOLF PACK**



Over 35 Information Security & Cyber Security Courses

100's of Distance Learning Courses

Foundation | Intermediate | Advanced

Graduate Development Programme

Tailored Curricula



# CRITICAL INFORMATION INFRASTRUCTURE PROTECTION - PARTICIPATING INDUSTRIES

<b>Water Systems</b>	<b>Transport</b>
<b>Information Technology</b>	<b>Government Facilities</b>
<b>Energy</b>	<b>Financial Services</b>
<b>Health</b>	<b>Ports</b>
<b>Electricity</b>	<b>Critical Manufacturing</b>
<b>Telecommunication</b>	<b>Other Industry Stakeholders</b>



# 2015 CIIP SA PROJECT KEY DELIVERABLES

- **Establish a task force** to help drive national efforts to enhance cybersecurity and improve Critical Information Infrastructure Protection in South Africa
- Help empower and raise the importance of proper information and **cyber security practices** within government and private sector
- Develop a **public national cybersecurity research report** to coordinate the actions of the task force.
- Develop a **CIIP framework** covering differing CIIP maturity levels
- Establish a **secure collaboration platform** to allow for interaction by CIIP stakeholders
- Provide advanced **security & incident response training** and a **targeted awareness programme** for key CIIP stakeholders
- Present findings of report at **Cybercon Africa 2015**



# CYBERCRIME

New Improved Cybercrime Unit in SAPS

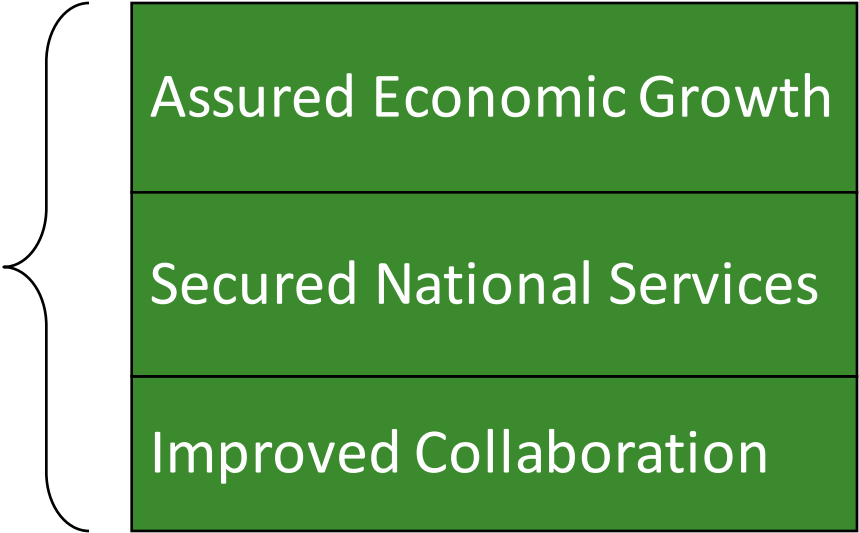
Cybercrime Task Force



# The Goal – A Safer Country for all

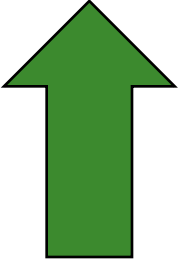
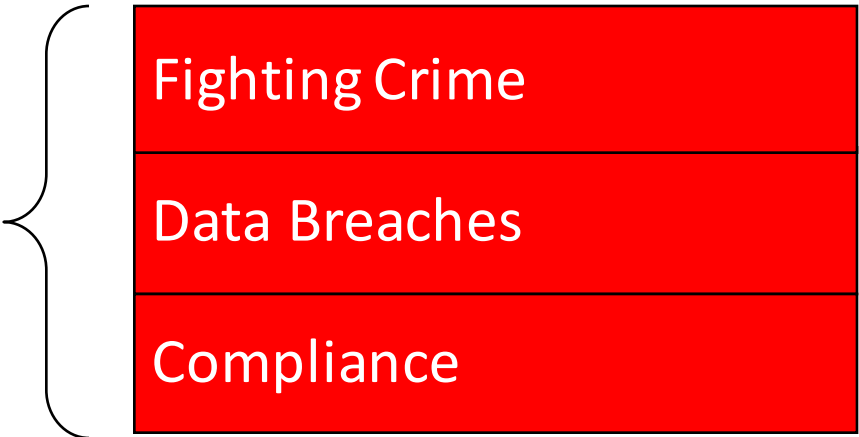
**PROACTIVE**

Creating stakeholder value

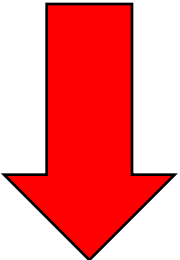


**REACTIVE**

Preserving stakeholder value



V  
A  
L  
U  
E





**Wolfpack Information Risk (Pty) Ltd**

**Craig Rosewarne**

[info@wolfpackrisk.com](mailto:info@wolfpackrisk.com)

[www.wolfpackrisk.com](http://www.wolfpackrisk.com)



Threat Intelligence | Advisory | Training | Awareness