

Practical approach to IS Audit

CA Narasimhan Elangovan

FCA, CS, DISA (ICAI), DipIFR (UK), CISA
(USA), LLB

Partner KEN & Co., Chartered Accountants,
Bengaluru.



Narasimhan Elangovan

B.Com, FCA, CS, DISA(ICAI),
DipIFR(UK), CISA(USA), LLB

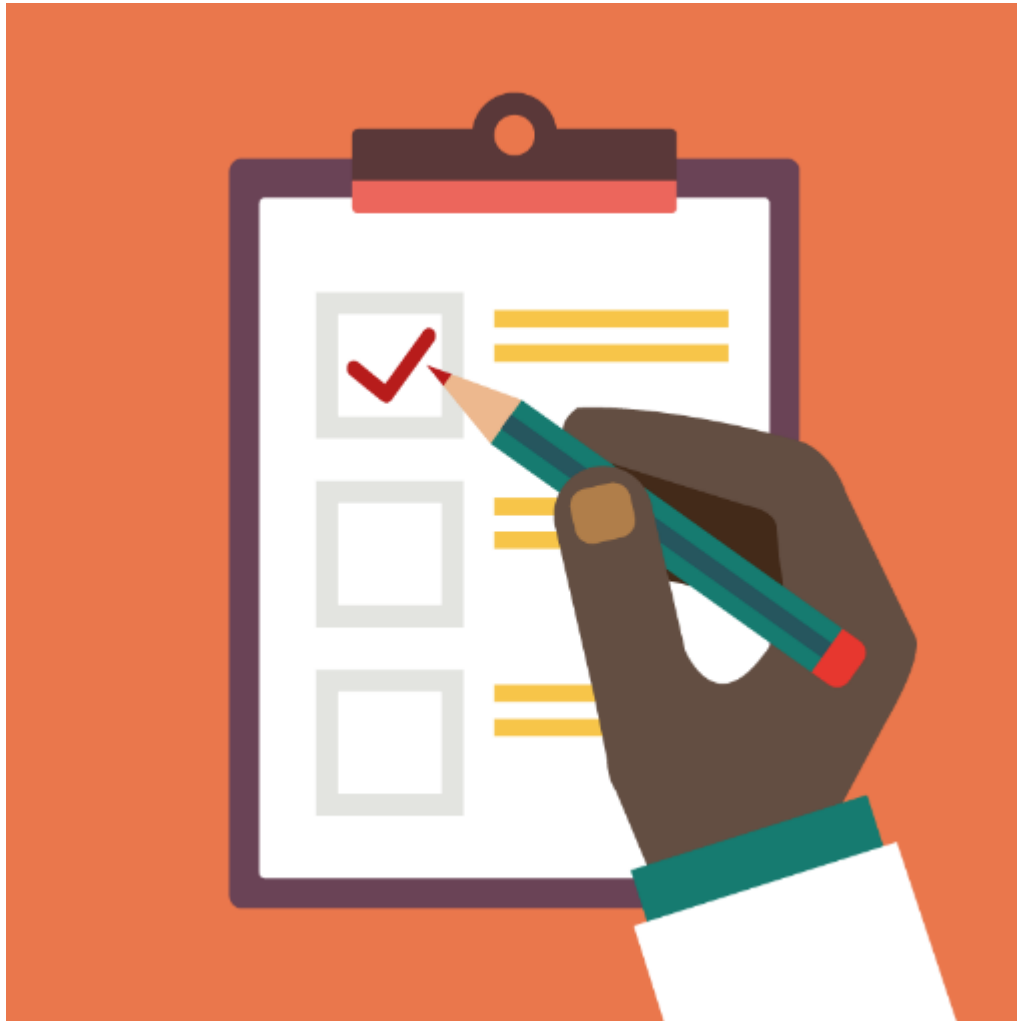


Partner
KEN & Co. Chartered Accountants,
Bengaluru.

- Practising Chartered Accountant with specialisation in Information System Assurance
- A futurist who specializes in
 - IT Consulting, Information Systems Assurance
 - GDPR & Privacy Law
 - Data Analytics, Implementation and Testing of Internal Financial Controls
 - SOX and SOC (SSAE-16 and 18)
- IS Auditor and Advisor for various BFSI, Sporting Organisations, start-up entities, Tech companies and many more
- Youngest DISA & CISA Faculty
- Speaker at National & International Forums of IT
- Faculty for CA Course (IT, EIS, ISCA) at ICAI and at Apnacourse.com (Online)

DISCLAIMER

- The views and apps discussed in this session is only for information purpose and are the personal views of the presenter. The presenter is a practising CA and does not have any interest in any of the applications discussed and neither endorses any application.
- The views expressed herein may not be taken to necessarily represent the views of his firm, M/s. KEN & Co. Chartered Accountants.
- Readers are advised to take caution before choosing any of the applications.
- This publication contains information in summary form and is therefore intended for general guidance only. It is not intended to be a substitute for detailed research or the exercise of professional judgment.
- No part of this material shall be construed as a solicitation of services or an invitation of any sort whatsoever from KEN & Co or to create a professional relationship.



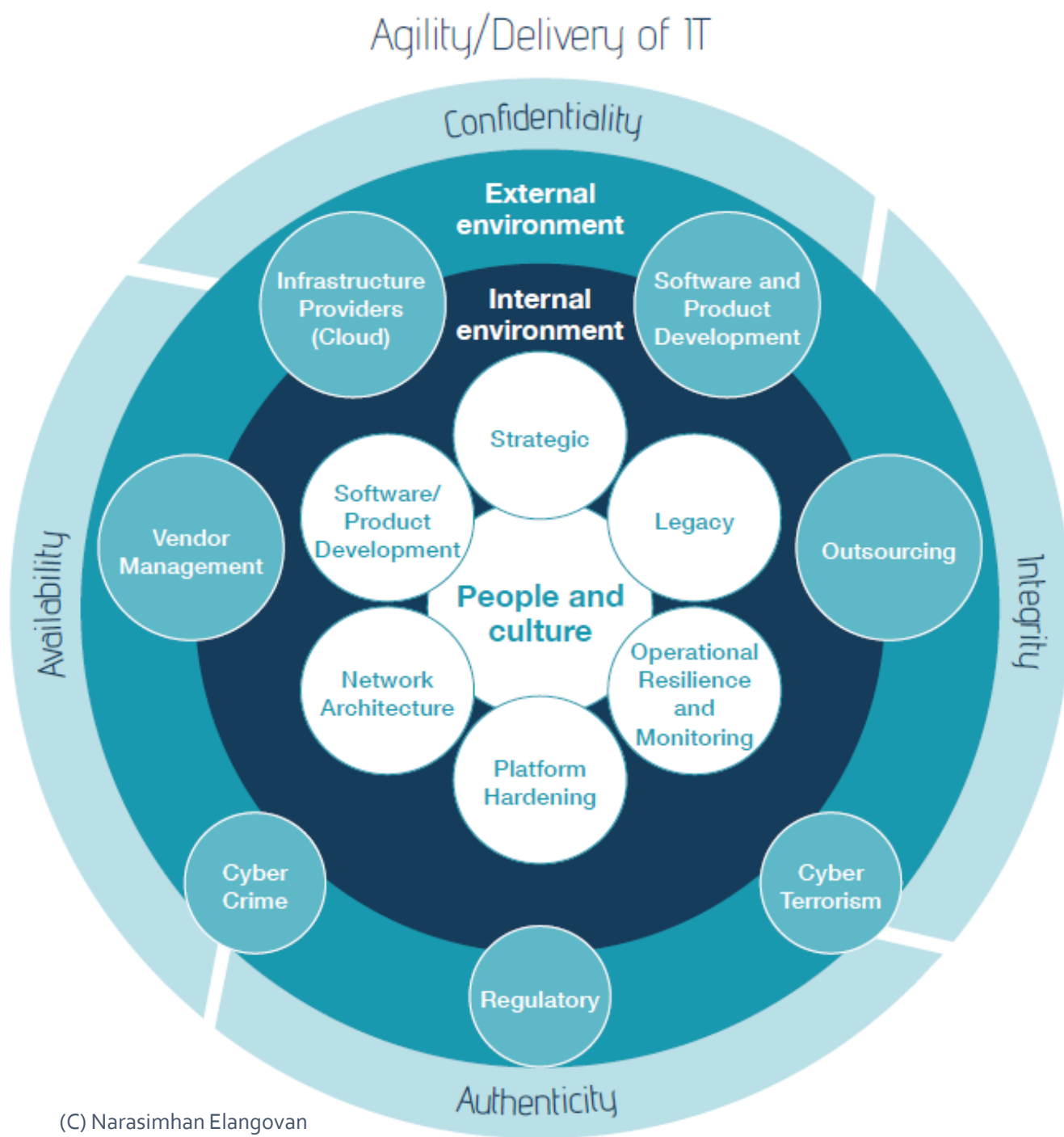
AGENDA

- Changing Landscape of Audit
- Audit Scope
- Audit Process
- Case Studies

CHANGING TIMES

NEWER BUSINESS RISKS

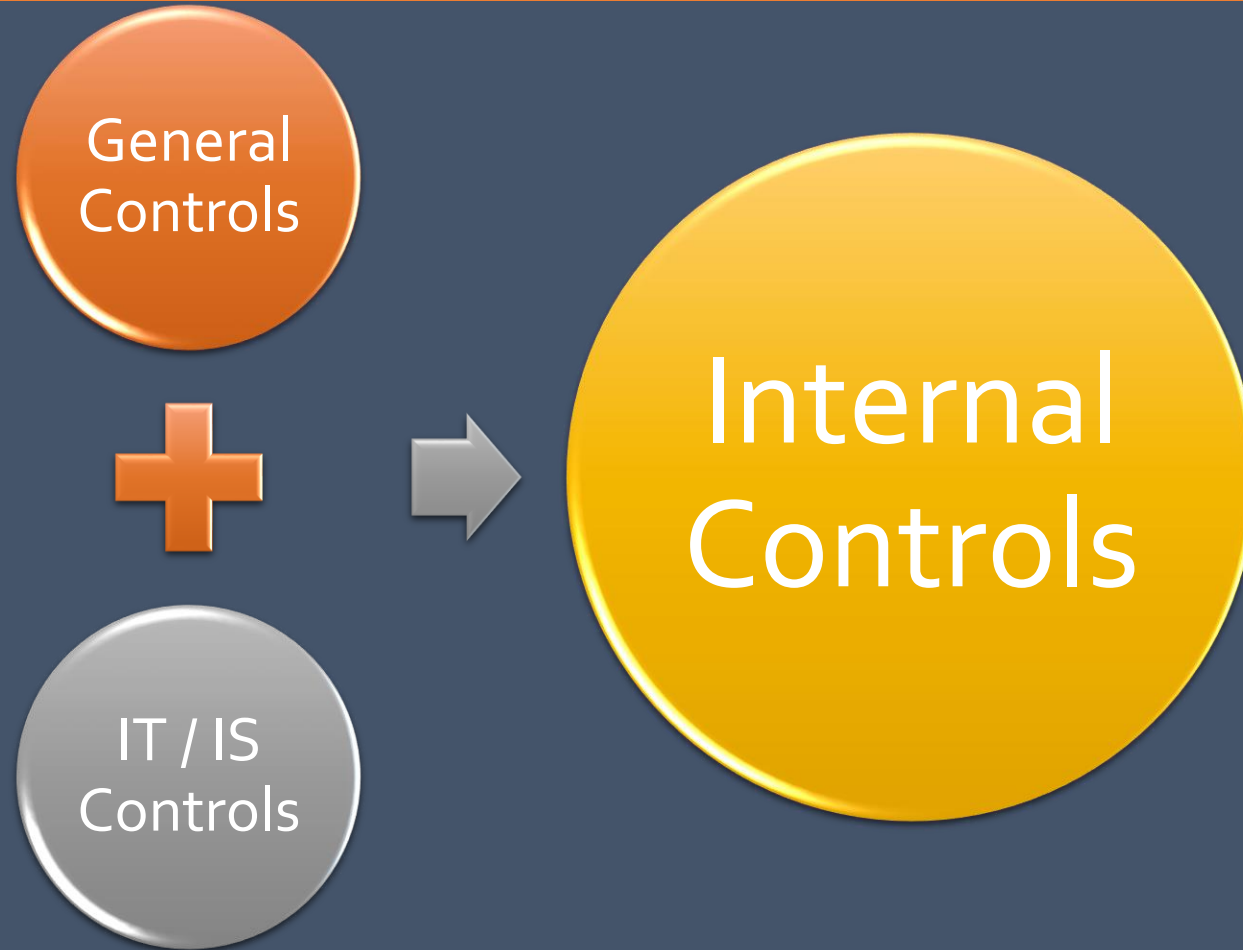
1. Digitalization, Industry 4.0 & the Internet of Things
2. Cloud computing
3. Privacy Law
4. Cyber security
5. Business continuity and crisis response
6. Data analytics and mass data usage
7. Organization-wide initiatives/projects
8. Alignment of operations to organization's strategy and objectives
9. Compliance Management Systems (CMS), auditing organization
10. Culture and ethics
11. Effectiveness and efficiency of operational processes
12. Integrated enterprise risk management and monitoring
13. IT governance
14. Outsourcing and managing third-party relationships



COMPONENTS OF THE IT LANDSCAPE

IT AUDIT SCOPE

INTERNAL CONTROL: COMPONENTS



IS CONTROLS: COMPONENTS



AUDIT OF ITGC

How do I audit the IT environment?

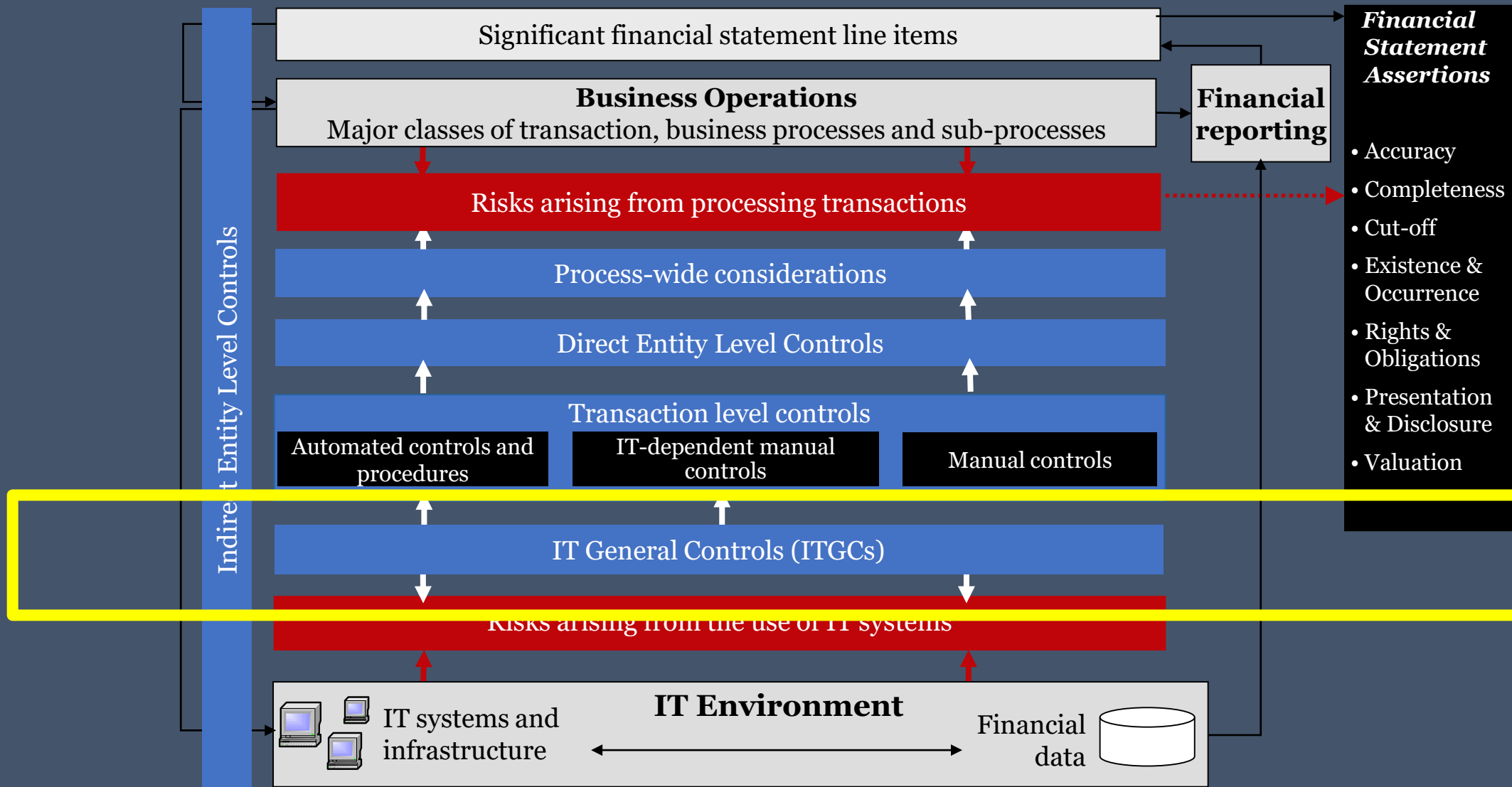
This is where IT general controls (ITGC) come in. They can be defined as:

“

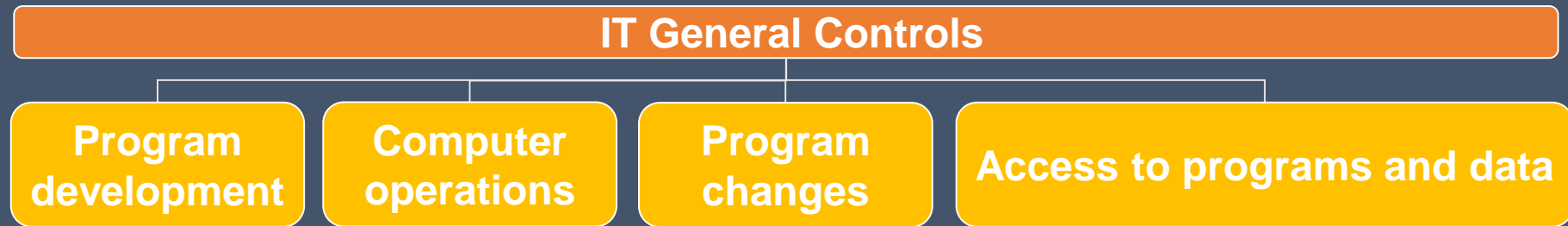
ITGCs are policies and procedures that are used to manage the IT activities and computer environment, relate to many applications and support the effective functioning of application controls by helping to verify the continued proper operation of information systems.

”

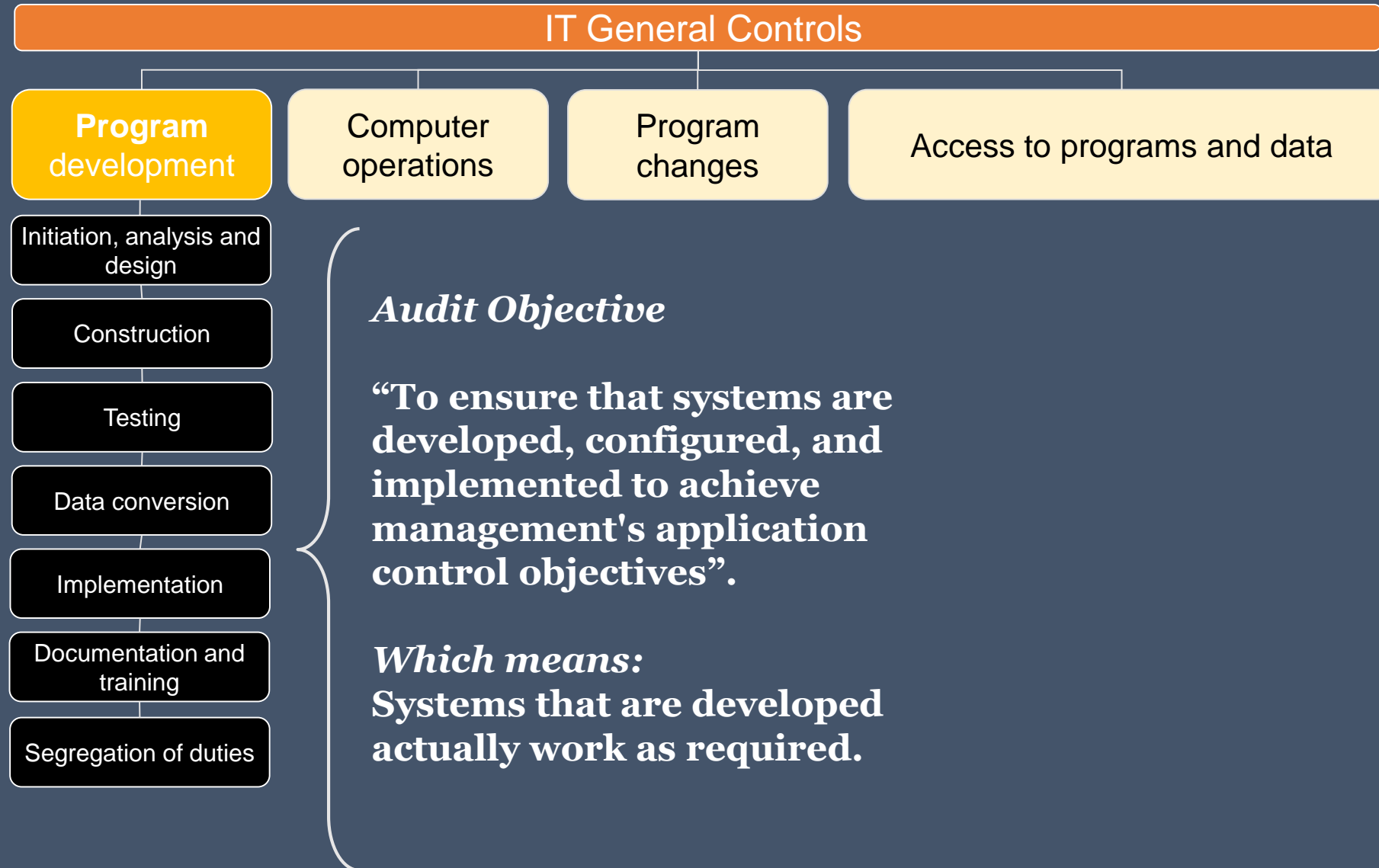
Where Do ITGCs Fit In?



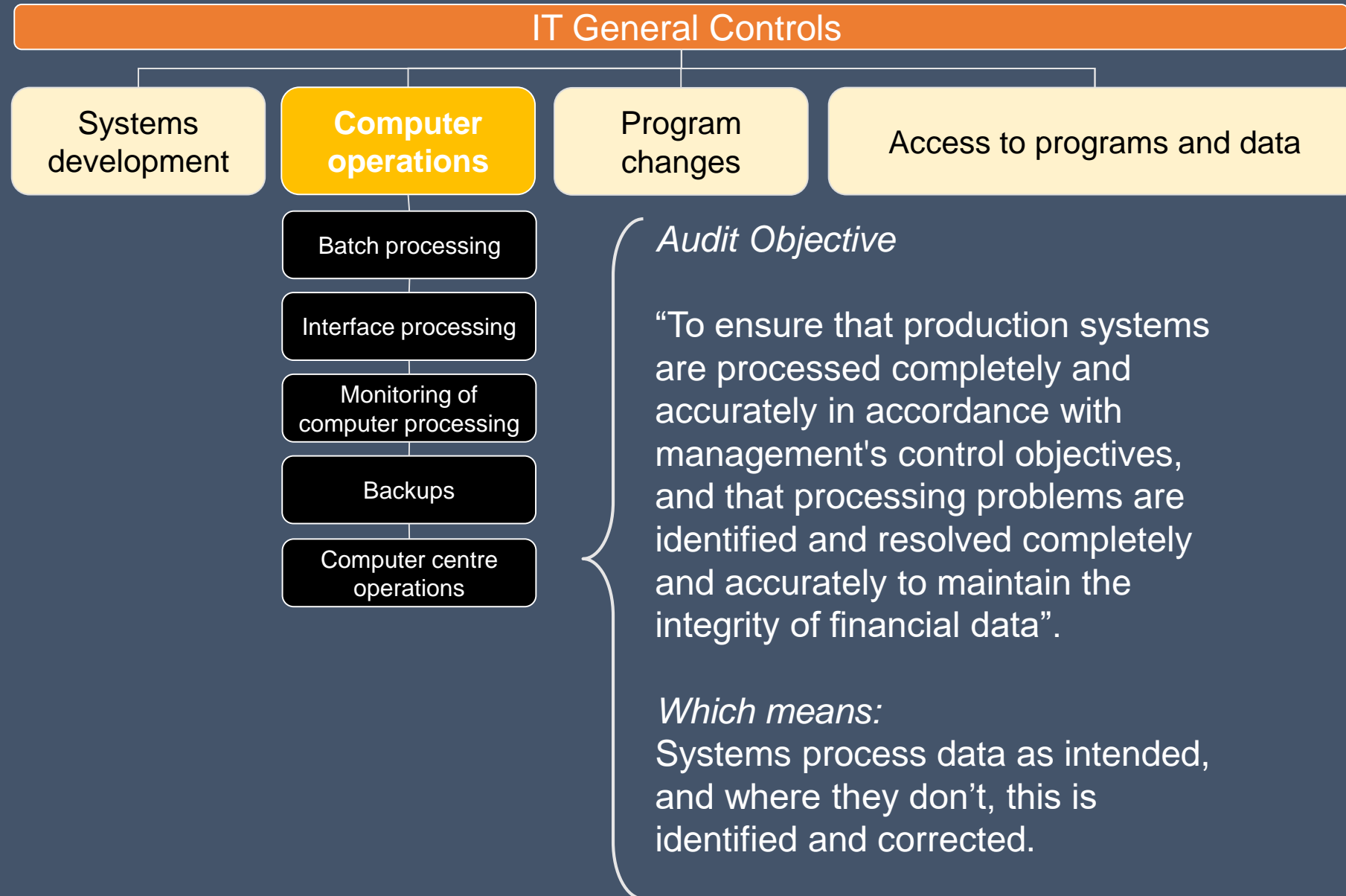
What does ITGC include?



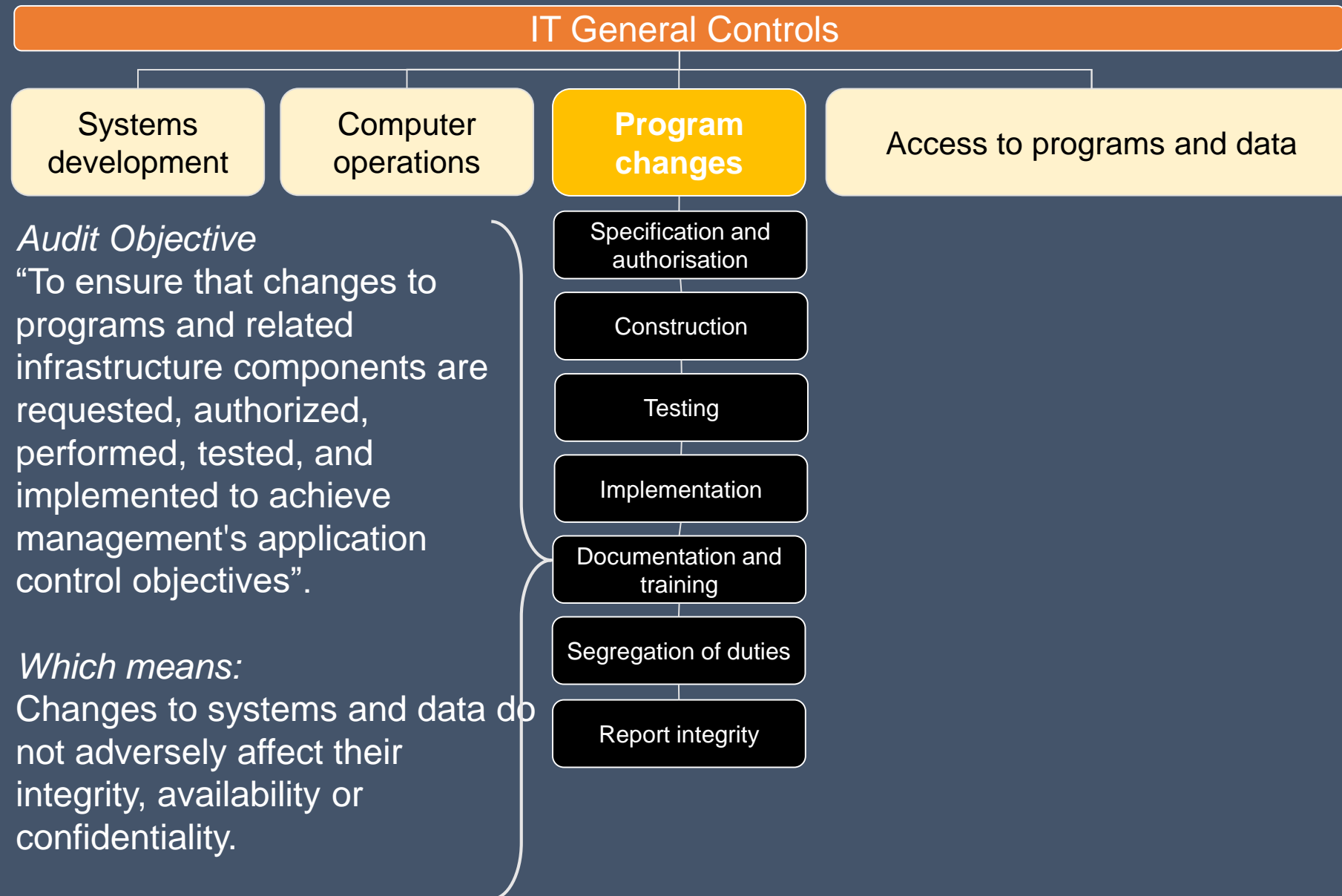
Program development



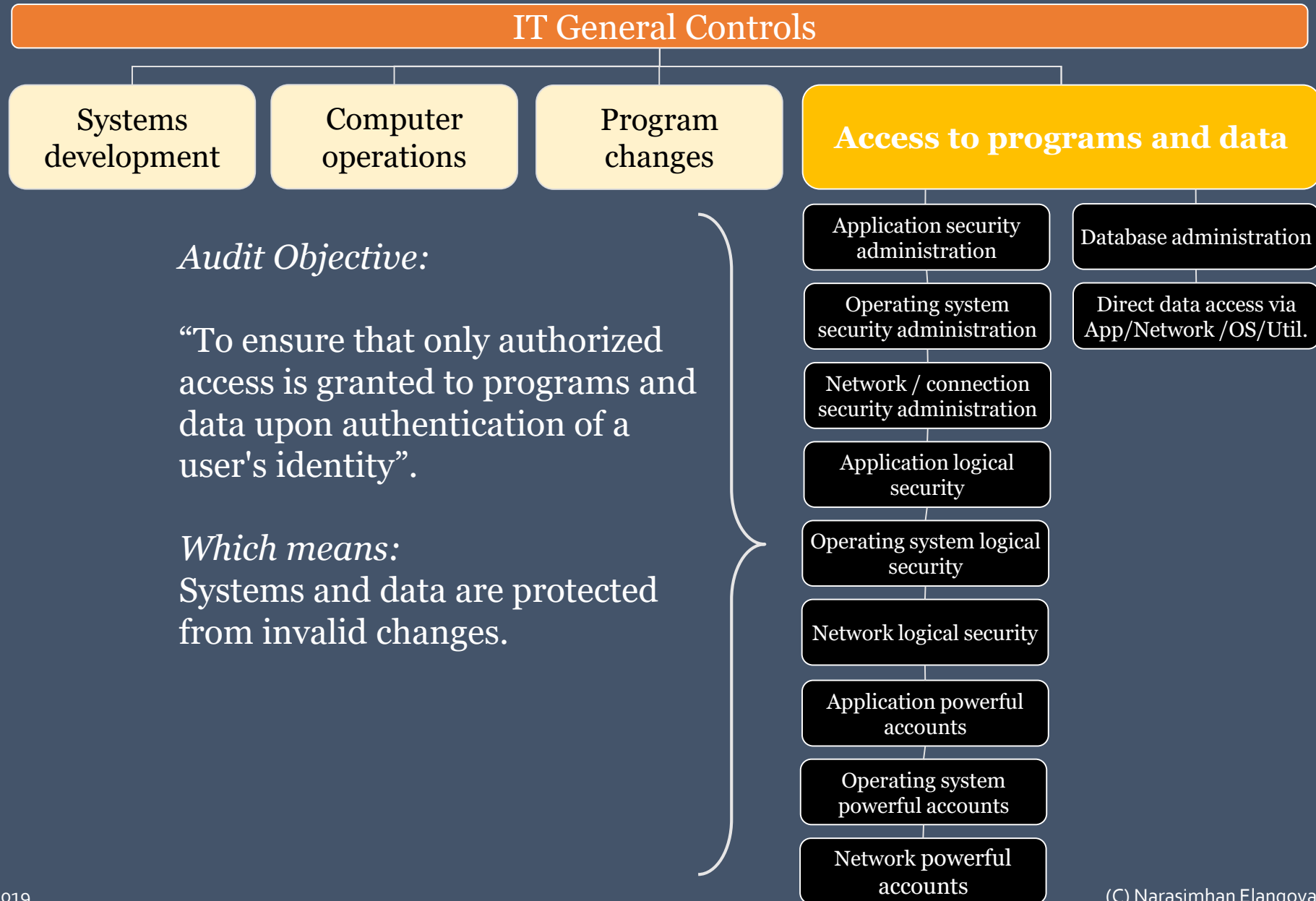
Computer Operations



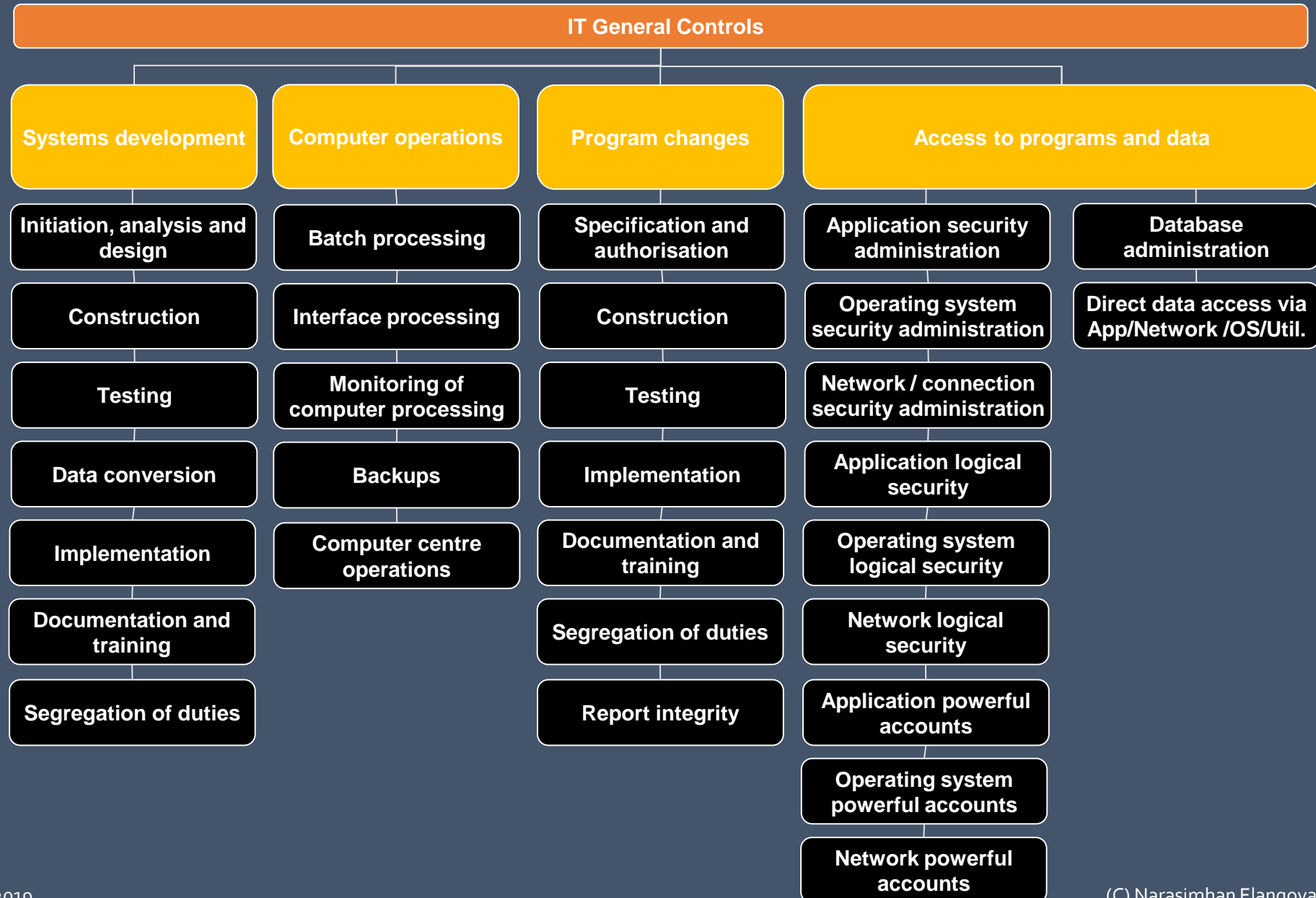
Program changes



Access to programs and data



The Complete picture



AUDIT OF ITAC

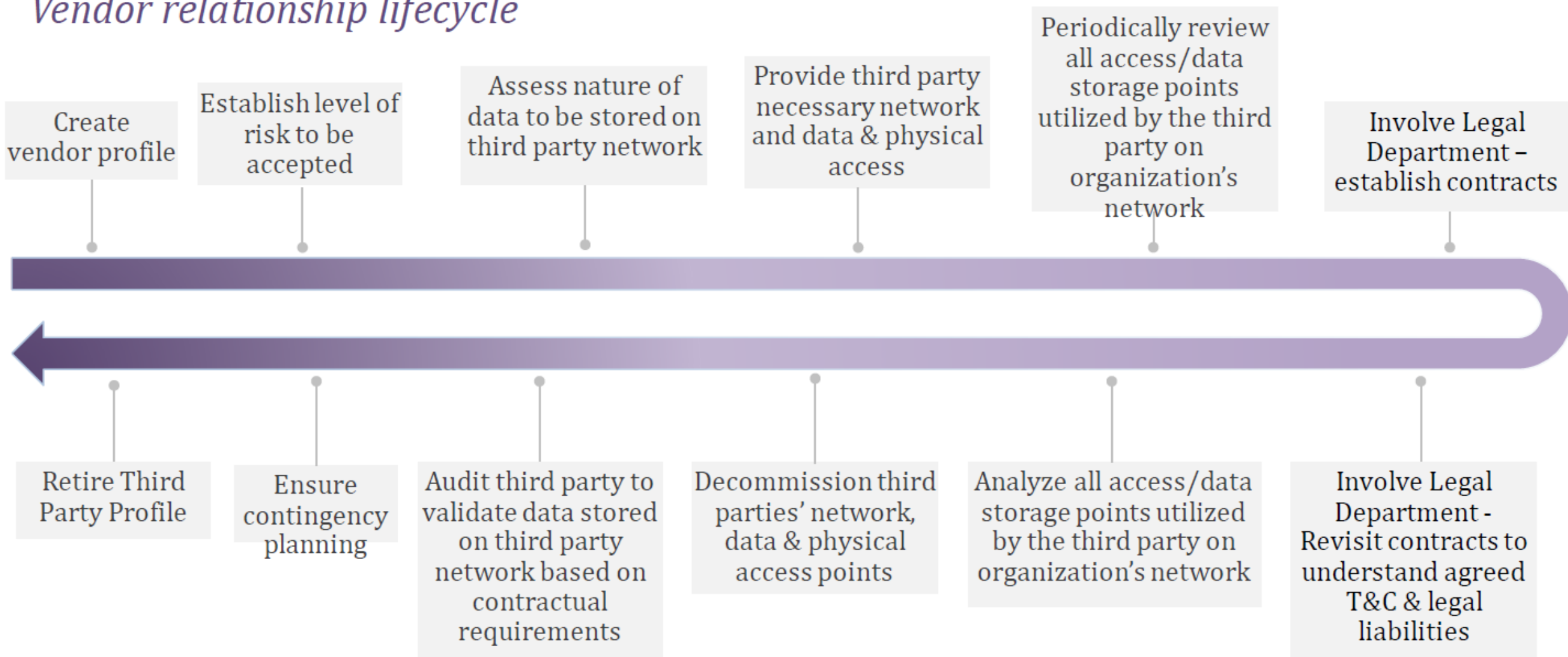
AUDIT OF APPLICATION CONTROLS

<i>Application Subsystem</i>	<i>Description of Subsystem</i>
<i>Boundary</i>	<i>Comprises the components that establish the interface between the user and the system.</i>
<i>Input</i>	<i>Comprises the components that capture, prepare, and enter commands and data into the system.</i>
<i>Communication</i>	<i>Comprises the components that transmit data among subsystems and systems.</i>
<i>Processing</i>	<i>Comprises the components that perform decision making, computation, classification, ordering, and summarization of data in the system.</i>
<i>Database</i>	<i>Comprises the components that define, add, access, modify, and delete data in the system.</i>
<i>Output</i>	<i>Comprises the components that retrieve and present data to users of the system.</i>

AUDITING VENDOR MANAGMENET

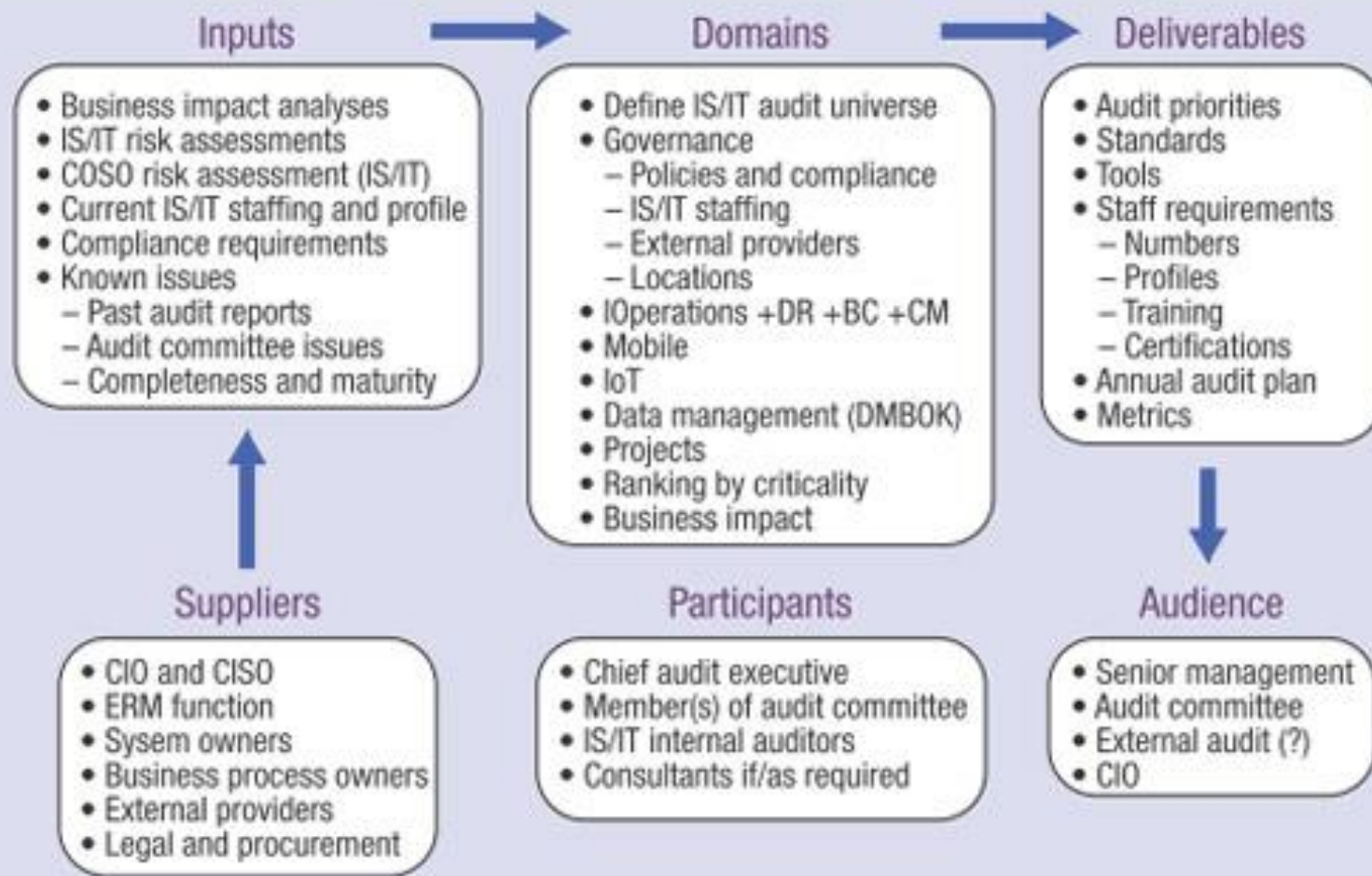
Vendor Relationship Management

Vendor relationship lifecycle



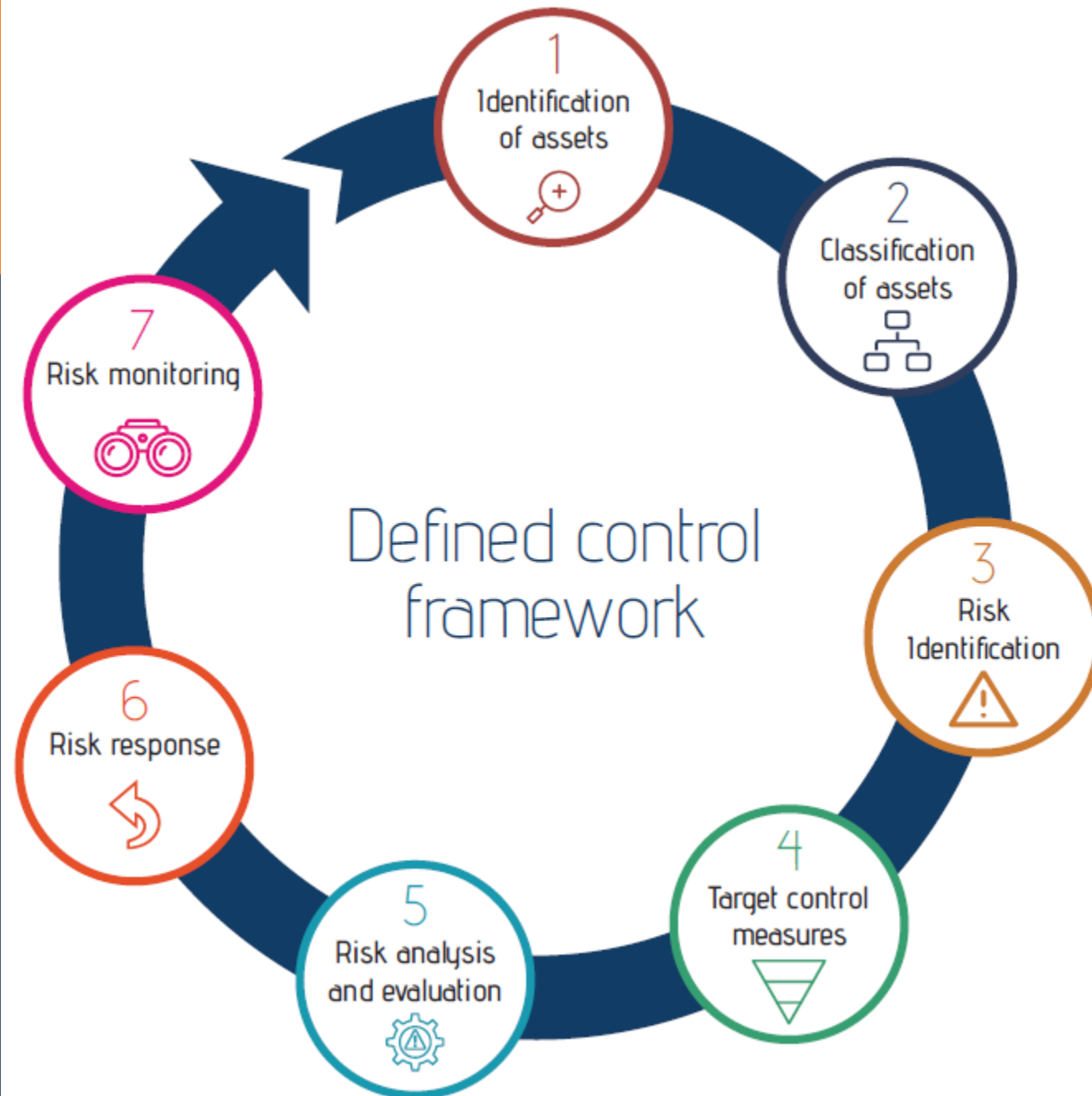
AUDIT PROCESS

Figure 1—Elements of an IS/IT Audit Strategy



DR = Disaster recovery
BC = Business continuity
CM = Crisis management
IoT = Internet of Things
DMBOK = Data management body of knowledge

Source: Ed Gelbstein. Reprinted with permission.



PRACTICAL CASES


AUDIT OF ITGC - SAP

- **User Administration** → Create/modify/delete/lock/reset passwords/assign roles
- **Role Administration** → Create/modify/delete/assign roles, profiles, & authorizations
- **ABAP Development & Program Execution** → Execute/debug reports or programs or modify the data dictionary
- **Transport Administration** → Import transports to production or modify the transport organizer
- **Table Maintenance** → Modify table entries
- **Batch Job Administration** → Administer/schedule/release/delete batch jobs
- **Operating System & Basis Sensitive Access** → Execute/modify external OS commands
- **Configuration Access** → Modify configuration/customizing










AUDIT COMMANDS

- SUIM (User Information System) – User Creation / Modification
- SE16N (General Table Display)
- Changes Authorised - SE16N-> table E070
- SQVI (Quickviewer)


PASSWORD POLICY

Data Browser: Table USR02 Select Entries 500							
 Check Table...							
Table: USR02							
Displayed Fields: 7 of 7 Fixed Columns: [2] List Width 0250							
	User	Valid from	Valid through	User Type	User Lock	Created On	Last Logon Date
<input type="checkbox"/>	BITRAGNA	00.00.0000	00.00.0000	A	0	10.12.2013	00.00.0000
<input type="checkbox"/>	CAMPSTME	00.00.0000	00.00.0000	A	0	30.07.2013	00.00.0000
<input type="checkbox"/>	GARRISLA	00.00.0000	00.00.0000	A	32	23.09.2009	23.09.2009
<input type="checkbox"/>	02573A7B3F1	18.05.2006	31.12.9999	A	0	18.05.2006	18.05.2006
<input type="checkbox"/>	0434C129E41	31.03.2006	31.12.9999	A	0	31.03.2006	22.08.2006
<input type="checkbox"/>	04BFFB8C6607	01.01.1900	31.12.9999	S	0	11.03.2011	03.04.2014
<input type="checkbox"/>	04F9591D911	10.03.2008	31.12.9999	A	0	10.03.2008	10.03.2008
<input type="checkbox"/>	08741F8A221	30.06.2006	31.12.9999	A	0	30.06.2006	30.06.2006

PASSWORD PARAMETERS

Display Profile Parameter				
				
 Parameter Name	User-Defined Value	System Default Value	Parameter Name	Comment
 login/min_password_digits		0	0	min. number of digits in passwords
 login/min_password_lett...		0	0	min. number of letters in passwords
 login/min_password_lng		6	6	Minimum Password Length
 login/min_password_low...		0	0	minimum number of lower-case characters in passwords
 login/min_password_spe...		0	0	min. number of special characters in passwords
 login/min_password_upp...		0	0	minimum number of upper-case characters in passwords
 login/multi_login_users				list of exceptional users: multiple logon allowed

CHANGE MANAGEMENT

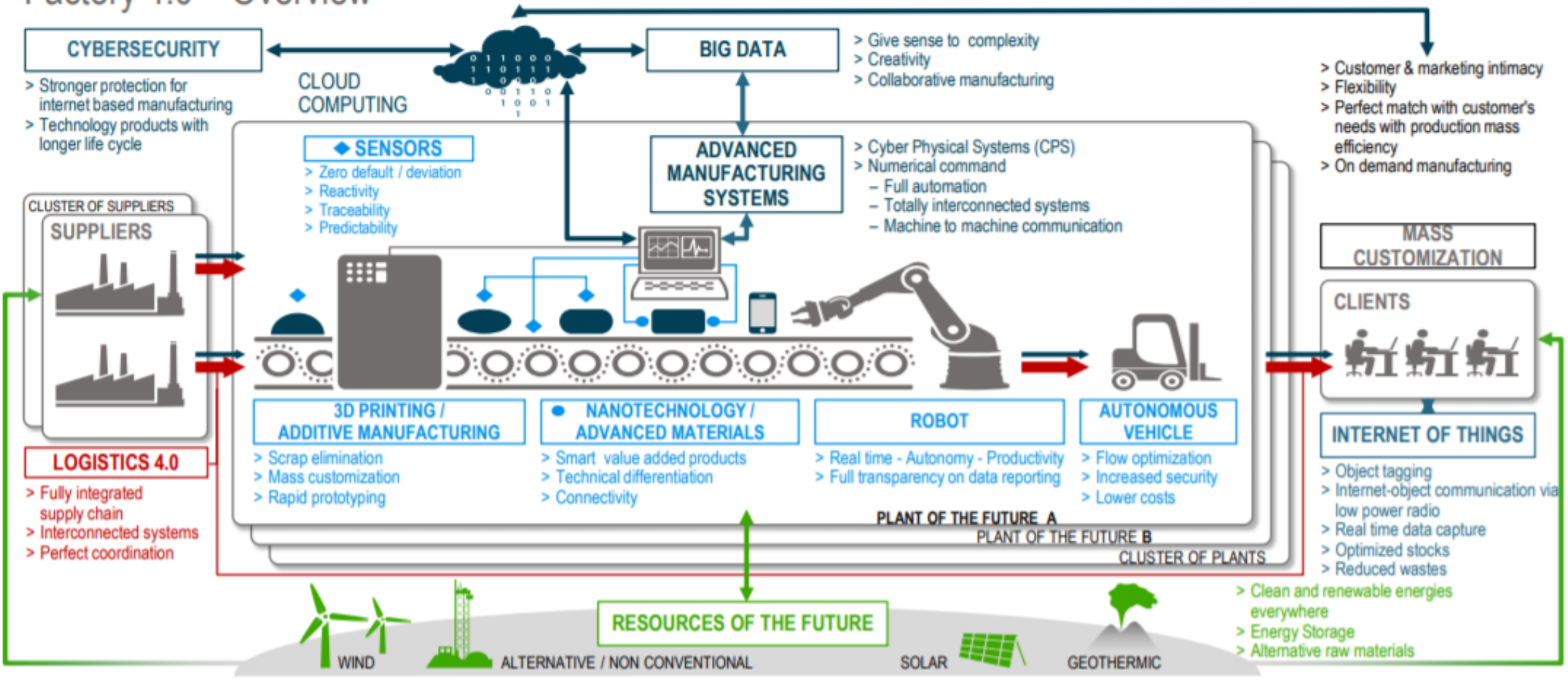
Data Browser: Table E070 Select Entries 500								
 Check Table...								
Table: E070								
Displayed Fields: 8 of 8 Fixed Columns: [1] List Width 0250								
	Request/Task	Status	Transport Target	Category	Owner	Date	Time	Short Description
<input type="checkbox"/>	DE3K904146	R	CL5	SYST	CHANDRAS	05.05.2006	16:08:08	HR Topline
<input type="checkbox"/>	DE3K904139	R	CL5	SYST	SHAHA	05.05.2006	15:43:25	Changes to ZPYXXFO_ZSAP_PAYSLIP_US2 form
<input type="checkbox"/>	DE3K904116	R	CL5	SYST	PITTEN	05.05.2006	23:22:34	Fix MSS budget
<input type="checkbox"/>	DE3K904068	R	CL5	SYST	SOHN	11.05.2006	20:19:53	ERecruiting Succession for Beth Solomon
<input type="checkbox"/>	DE3K904049	R	CL5	CUST	C5073548	29.05.2006	21:26:51	Ticket 85133
<input type="checkbox"/>	DE3K904029	R	CL5	SYST	CHANDRAS	28.04.2006	19:14:51	HR Topline
<input type="checkbox"/>	DE3K903983	R	CL5	SYST	SOLOMON	27.04.2006	19:35:50	Workbench changes for e-recruiting-BES

WHAT ARE THE INPUT CONTROLS WHICH
CAN BE PLACED HERE?

Atm Bank Code	<input type="text"/>
Num Txns In Mini Statement	<input type="text" value="20"/>
Remote Txn GI Module	<input type="text" value="99"/> <input type="button" value="..."/>
Remote Txn GI Scheme	<input type="text" value="101"/> <input type="button" value="..."/>
Remote Txn GI AcctNo	<input type="text" value="999999"/> <input type="button" value="..."/>
Pan Required Above Amount	<input type="text" value="99999999999999.00"/>
Num Password Attempts	<input type="text" value="99"/>
Min Length User Code	<input type="text" value="3"/>
Min Length Password	<input type="text" value="3"/>
Min Chars In Password	<input type="text" value="0"/>
Min Nums InPassword	<input type="text" value="0"/>
Password Validity	<input type="text" value="365"/>
Max Exchange Rate Var Percent	<input type="text" value="10"/>
Series Required	<input type="checkbox"/>
Recon Required	<input checked="" type="checkbox"/>
Multi Lien Allowed	<input checked="" type="checkbox"/>
Acct No Padding	Zero Padding <input type="button" value="v"/>
Acct No Combined	<input type="checkbox"/>
Encrypted Login Name	<input checked="" type="checkbox"/>
Date Format	DD-MMM-YYYY <input type="button" value="v"/>
Cust Wise Interest	<input type="checkbox"/>
need Select Td Renewal Interest	<input checked="" type="checkbox"/>
Bank Wise Tds	<input type="text" value="N"/>

AUDIT 4.0

Factory 4.0 – Overview





What new types of audit evidence can be generated and collected in the context of Audit 4.0?



As more data will be collected in Audit 4.0, how can auditors avoid information overload to find relevant auditing information?



How should external and internal auditors cooperate to enable Audit 4.0?



Will the current audit model be changed in Audit 4.0?



What are the new roles of the different lines of defense?

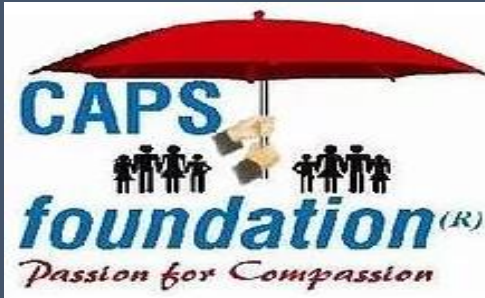


How can predictive and prescriptive audits be used in Audit 4.0?



What are new controls that should take place to examine whether the technologies/systems operate as they are supposed to do?

QUESTIONS TO ANSWER



<https://www.capsfoundation.in/>

Thank You! Questions?



Narasimhan Elangovan
narasimhan@ken-co.in
www.ken-co.in

Online Classes

 APNA COURSE™



Narasimhan Elangovan

Partner at KEN & Co. Chartered Accountants

