



The evolution of Internal Auditing

Natural selection applied to the challenge of value creation and protection

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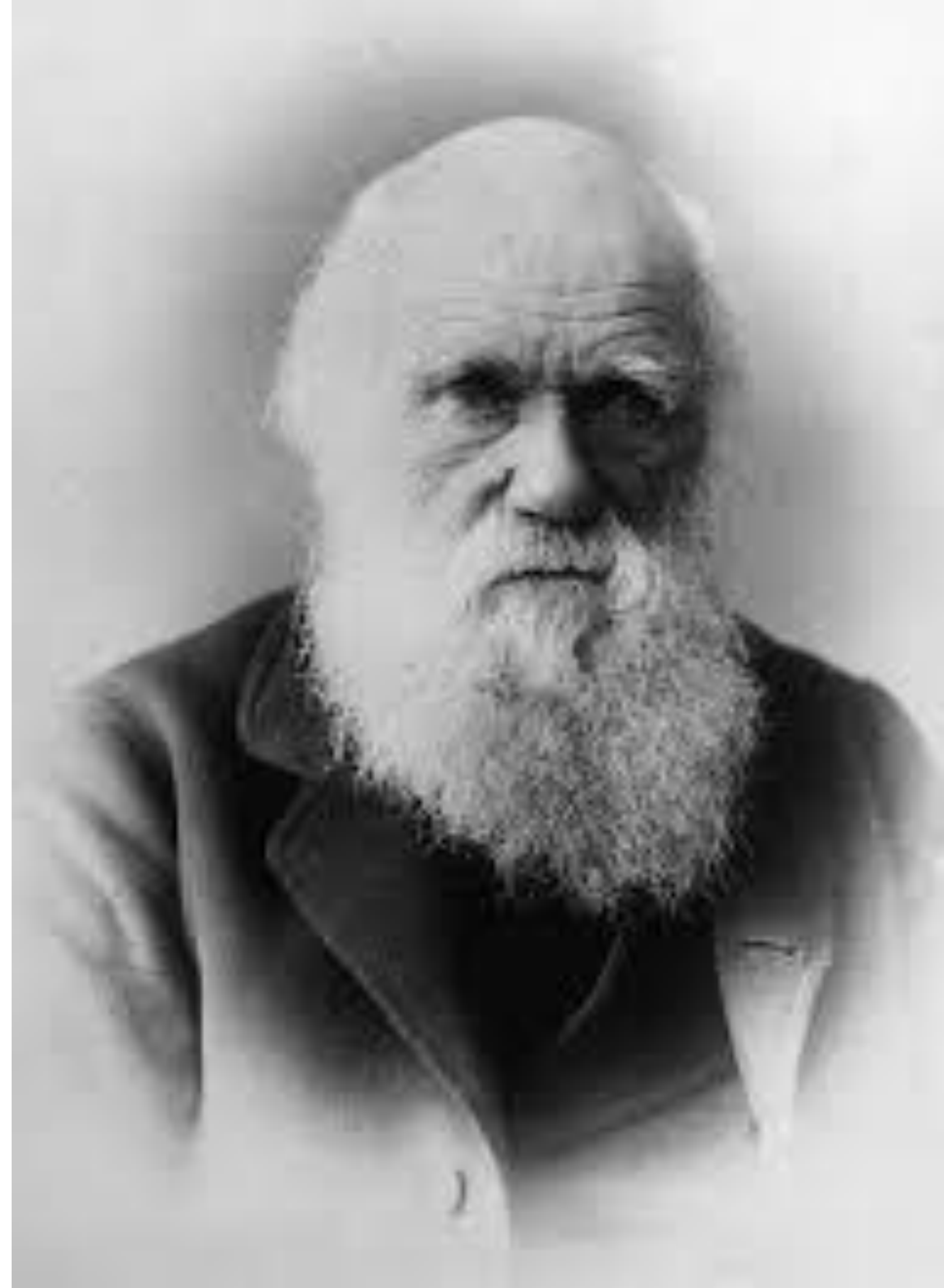


It is not the most intellectual of the species that survives.







It is not the strongest that survives

The species that survives is the one that is **able best to adapt and adjust to the changing environment** in which it finds itself.

CHARLES DARWIN



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From the dawn of IA to the more recent past

Mission, definition and principles of Internal Auditing

To **enhance** and **protect** organizational value by providing risk-based and **objective assurance, advice, and insight**.

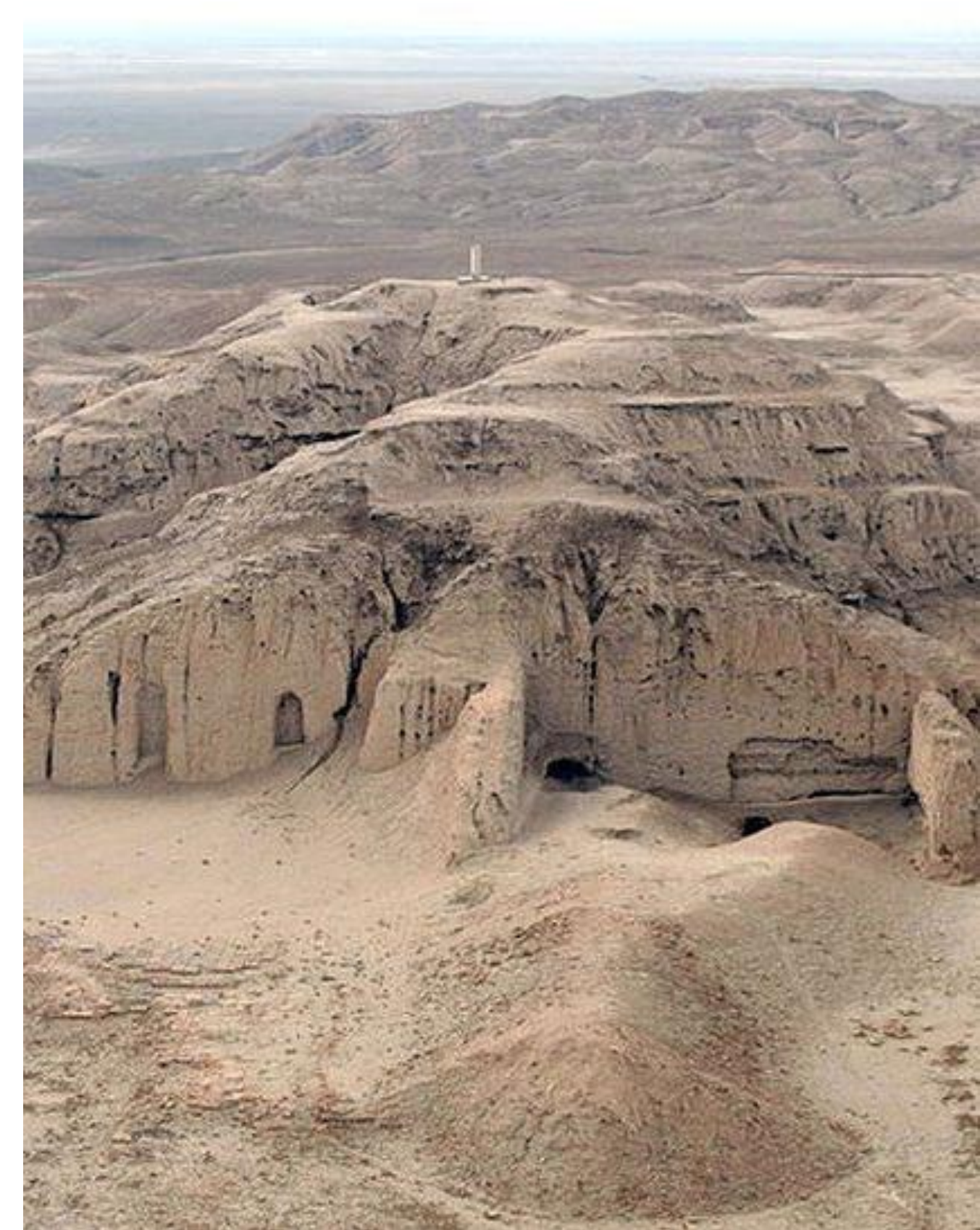
Internal auditing is an **independent, objective** assurance and consulting activity **designed to add value and improve** an organization's operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach **to evaluate and improve** the effectiveness of risk management, control, and governance processes.

The auditor demonstrates **integrity, competence** and **due professional care**, is **objective** and **free from undue influence** (independent) and **aligns with strategies, objectives**, and risks of the organization. The auditor is **appropriately positioned and adequately resourced**, demonstrates quality and continuous improvement, communicates effectively and provides risk-based assurance. The auditor is **insightful**, proactive, future-focused and promotes organizational improvement.

Centuries of evolving assurance

- In 1929, a German archaeologist named Julius Jordan unearthed a vast library of tablets that were 5,000 years old, written in an abstract script that became known as "cuneiform". Tablets were found in Uruk, a Mesopotamian settlement on the banks of Euphrates in what is now Iraq
- The french archaeologist Ms. Denise Schmandt-Besserat during the 1970's finally decyphered one of those tablets.
- Uruk was a great city and food was gathered from the surrounding countryside. An urban economy requires trading, and planning, and taxation too. Little loaf tokens were used to count as the sacks of grain arrive and leave.
- The tablet is maybe the oldest proof of inventory auditing

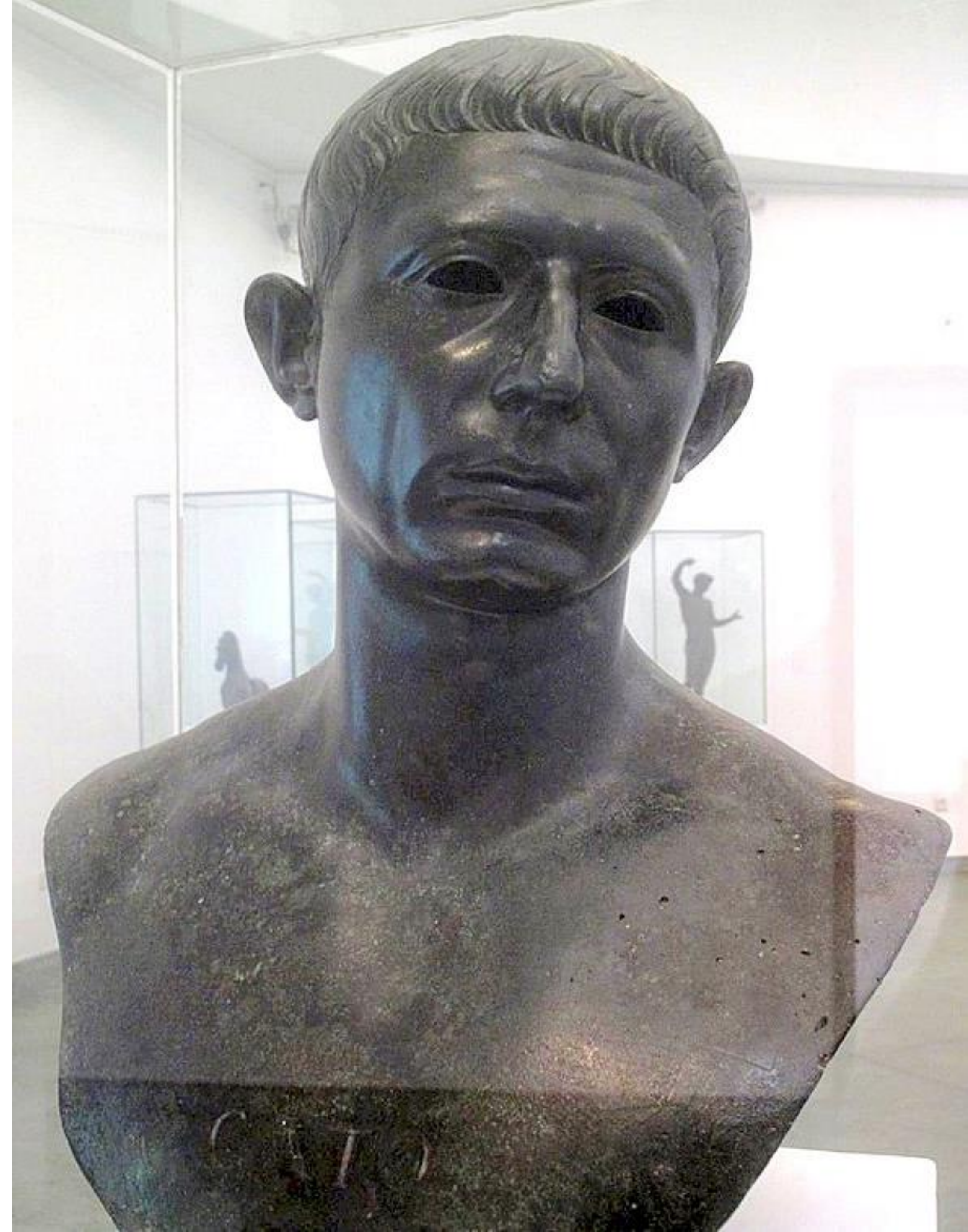
(source: BBC.com)



Centuries of evolving assurance

- In ancient Rome, the emperor appointed trustworthy young men as 'Quaestores' (2000 to 400 BC)
- The Quaestor was sent to provinces to verify if the Governor (the person ruling the Province) was properly managing expenditures, if the assets bought were existing, were properly protected and looked after, and if taxes were properly calculated, collected and sent to Rome.
- Latin 'Quaestio' translates into english 'Question'
- Latin 'Audire' translates into english 'Hear' or 'Listen to'.

(source: Mazars Hong Kong)



Centuries of evolving assurance

- In ancient China, auditors were personally appointed by the emperor and had great respect in the society. Auditors were obliged to keep secret audit techniques and their loyalty was constantly challenged.
- Zhou Dynasty (1122 a.c.-770 a.c.) introduced first a formalized system of audit procedures: **Zai-Fu** (a review of monthly accounting records); **Sui-Hui** (full review of the annual report); **Ta-Chi** (Triannual Examination of Officers to support decisions of promotion of government officials)
- During the Tang Dynasty (618 d.c.-907 d.c.) procedures were better formalized in the **Bi-Bu** audit framework. Previously under the Ministry of Finance, Bi-Bu then became a procedure of the «Bi» office of justice.
- During the Song dynasty (907 -1279 AD) the word audit appears for the first time, through the expression **She-Ji**: Shen « exam» and Ji «finance, accounting»



Centuries of evolving assurance

It was Henry I who first used the word 'auditors': officials of the **Exchequer**, the treasury office of the English crown, sent across the reign to verify the barons compliance with the Exchequer rules and looking for any fraud.

The Court of Exchequer was created to administer revenue collection and the control of expenditure following the Norman Conquest in 1066.

Procedures and controls over revenues and expenditures were established in the early twelfth century and are described in the "Dialogus de Scaccario" written around 1180.



Centuries of evolving assurance

The key development that created audit as we see it today was due to the industrial revolution in the late 1700's

With capital becoming a key element of industrial development, investors became a crucial part of the business process.

However, investors would only invest their money in something they believe is safe and they understand.

So they appointed **people** they considered trustworthy, like business associates and friends, to audit that the information being provided to them was true and fair.



Centuries of evolving assurance

At the end of the 1800's auditors start getting together in auditing firms.

The crash of the US stock market in 1929 resulted in a lot new regulation.

“Free, fair and full reports of industrial organizations, should be founded upon thorough, independent audits of accounts by disinterested certified public accountants, whose signed certificates, to be published with the report, are a more nearly perfect guarantee of reliability than any other yet to be discovered.” (Charles Haskins)

From then, auditors needed to be qualified professionals.

The great depression increased audit focus on profit and loss and financial reporting of business performance.



Image ID: HRKRY3
www.alamy.com



Centuries of evolving assurance

Computerization starts in the late 60's and evolves in the tech revolution of the 80-90's → IT auditing initiates.

Enron and Worldcom in early 2000's → risk-based auditing emerges

Sub-prime crisis → IA positioning, profile and business partnership revolutionize

WHAT'S NEXT????

The value challenge in the evolution of internal auditing

New positioning generating new expectations

- The most recent macroeconomic developments have had a dramatic impact on global markets, forcing directors and management to demonstrate the capability to make very complex decisions in a **timely** and **incisive** fashion. Increasingly, the complexity of the economic environment reaffirms how important it is that the decision-making process is based on qualitative, well-timed, and complete information.
- This creates a space for action where the auditor can provide added value to his or her internal clients. In fact, according to the Institute of Internal Auditors, internal audit is designed “to enhance and protect organizational value.” Such a mission statement crystallizes how the internal audit mandate must be oriented: toward protection and creation of value at the same time.



The value challenge in the evolution of internal auditing

- As in the natural selection process, internal audit has had and will have to evolve and not succumb. Internal audit must interpret its role in a way that is consistent with stakeholders' expectations and with the emerging external threats. This adaptation is inevitable and in some ways already designed. If the strategic evolution of internal audit depends on the dynamics of every organization, we can already observe some common ground elements that will be the basis of future IA functional developments.
- The risk panorama is evolving much more quickly than before and thus internal audit processes must evolve faster as well, allowing internal audit activity to develop at a pace consistent with risk exposures.
- Our stakeholders need **continuous feedback, streamlined audit processes** that **inform quickly** on existing and **emerging risks**, with internal auditing focused on **risk prevention** rather than only on **risk detection**. To articulate this properly, the audit will have to be constantly **aware of business dynamics and challenges**, developing essential skills of **business acumen**.

Playing closer to the narrow red line

- According to lean, control is a 'mu-da': internal auditors will have to be able to interact with other control functions so that risk exposures could be described consistently across the organization and to avoid inopportune and wasteful duplications in assurance services.
- Auditors evaluate the internal control framework. But auditors are part of the internal control framework. Auditors perform controls to verify if controls executed by management are effective. To avoid being a mu-da IA control activity needs to add value.
- Within this scenario, we can predict that the **successful internal auditor** will be driven to **operate closer to the limit of independence** and to **provide added value** to management.
- Auditors will need to consistently work with audit committees so that required **independence** safeguards are maintained.

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From risk-based to value-based auditing

ERM gives IA inputs to spread its mandate and seek new ways



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ERM gives IA inputs to spread its mandate and seek new ways

Audit charters to become less copy-paste, more **tailor-made** to the enterprise



Audit visions should be **formalized, aspirational, consistent** with the vision of the enterprise
Tactical imperatives should be defined to get closer to the aspirational vision

ERM gives IA inputs to spread its mandate and seek new ways

Heat maps, risk assessments, audit plans should reflect relevance to business objectives, not only one-dimensional risk perspectives



Does yearly audit planning still make sense? Risks evolve in the continuum and so should IA schedule. To provide value, IA should continuously re-assess its schedule based on risk and performance monitoring.

ERM gives IA inputs to spread its mandate and seek new ways

Do not refrain from expressing opinions on culture, governance, control environment, change management



Value based audits foremost assess how well do process objectives link to company objectives and how these are achieved. Value-add audits predict objective failures, providing **insight and foresight**.

ERM gives IA inputs to spread its mandate and seek new ways

Internal control is the set of rules, procedures and org structured designed to identify, measure, manage and monitor risks. Ok, we interview people, but how can we assess internal control without **interviewing Data**?



In the traditional IA, the most important section of the report is the 'issue section'. In Value-Based auditing action plans are the most important section of the audit report. An audit report without subsequent change is a clueless waste of time and money.

ERM gives IA inputs to spread its mandate and seek new ways

Streamlined reporting to ensure alignment in communication to various stakeholders. Truth does not require many words, jargon or goobledydoos. IA reporting to be concise, to the point, action oriented, discriminating.



Give feedback faster. Promote change quicker. Agile auditing for agile reporting and agile change adoption.

A methodology where internal auditors perform forward-looking internal audit services to offer insights and actively seek innovation to improve an organisation, seeking to do this from the audit client perspective

Value based auditing

Value-based is where IA is heading to, but we're not fully there yet



4

Transition to data-driven, continuous auditing

What is continuous auditing?

‘Continuous Auditing is the collection of audit evidence and anomalies on processes, transactions, controls and information systems by the Internal Audit Function on an ongoing basis or with a predetermined frequency’.

A change in perspective

THE TRADITIONAL APPROACH

- **periodic** testing through cyclical interventions on processes, functions or companies carried out following a cyclical planning;
- the effectiveness of controls can only be increased **after the audit**, when the action plans have been implemented;
- the **effectiveness of the intervention**, from the moment of its conclusion to the implementation of the action plans, **may decrease** due to organizational changes, personnel or other external conditions;
- **Follow-up activities** are **required** to verify the implementation of the action plans.

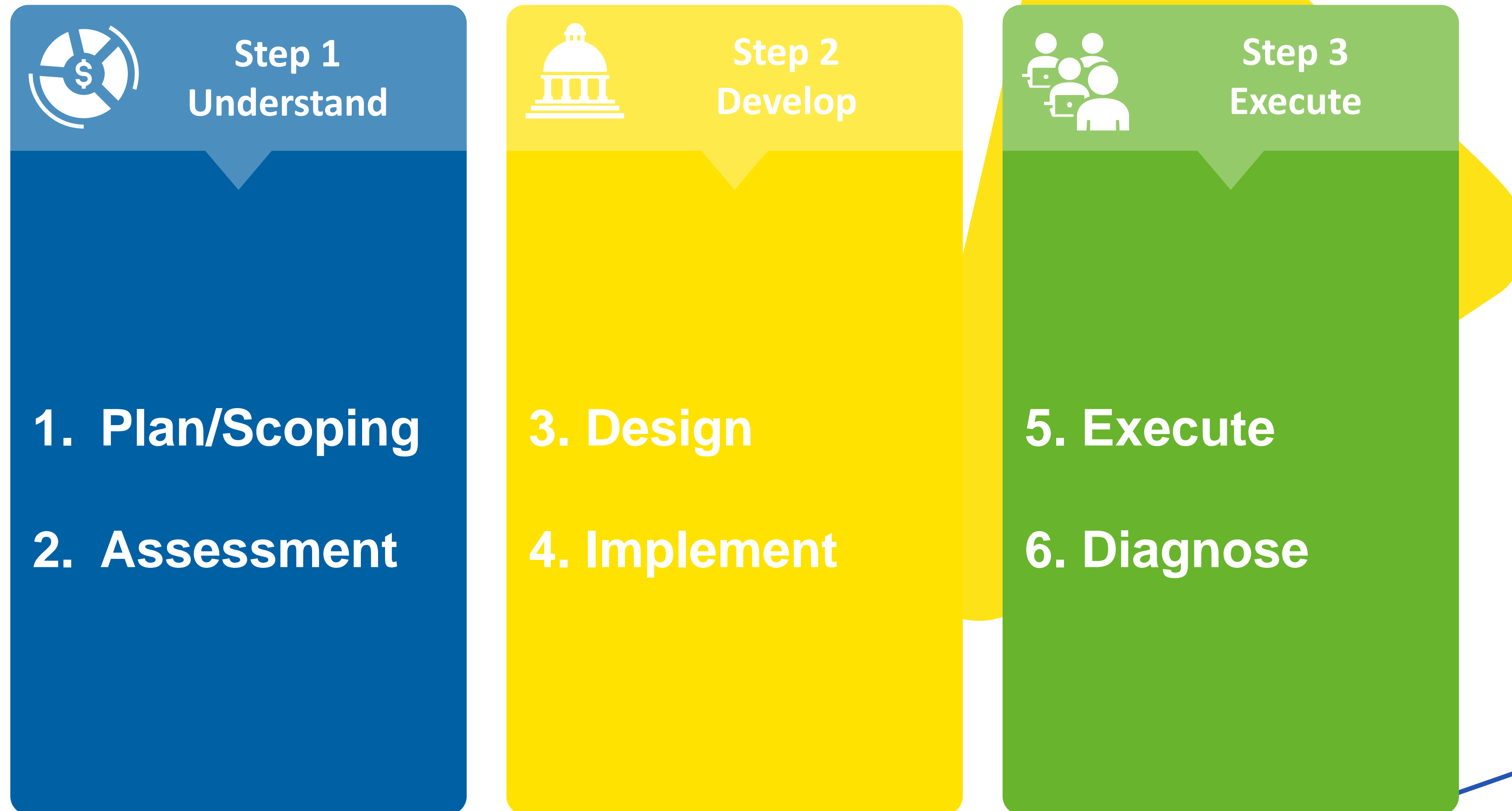
DATA DRIVEN CONTINUOUS AUDITING

- recurrent and focused testing that could also be carried out **in real time**;
- gaps in controls are identified by Internal Audit **more promptly** and with the opportunity for management to minimize the persistence of the inefficiency or risk detected;
- new controls can be identified and monitored allowing Internal Audit to **adapt** its activities to new needs, while remaining focused on the most relevant controls;
- IA can base its opinion on the control framework on a dynamic analysis of **patterns** described by **data over time**.

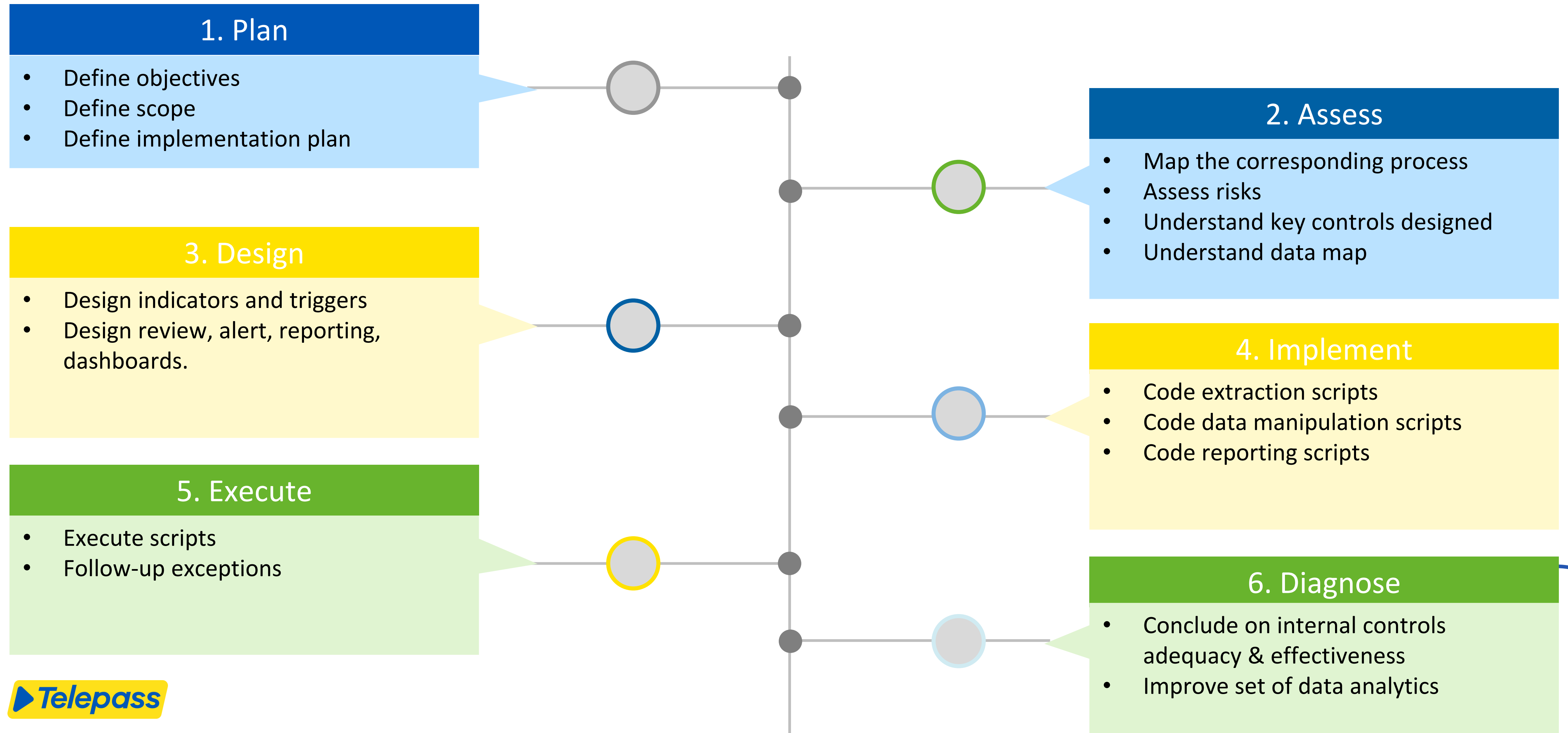
Top 5 benefits fo Data Analytics & Continuous Auditing

- i) Integrate the traditional retrospective audit approach, cyclical and based on limited samples, with continuous and automated verification activities, **covering the entire reference population**;
- ii) Strengthen the areas of audit activities by **focusing test activities on the high risk transactions**;
- iii) Improve controls more quickly, while **reducing the audit risk**;
- iv) Facilitate **predictive auditing** through trend analyses;
- v) Allow coverage of key risks **accommodating remote work and cost reduction** situations;

How do we develop data analytics?



Data analytics process steps



The evolution of IA's role: from analyst to diagnostician

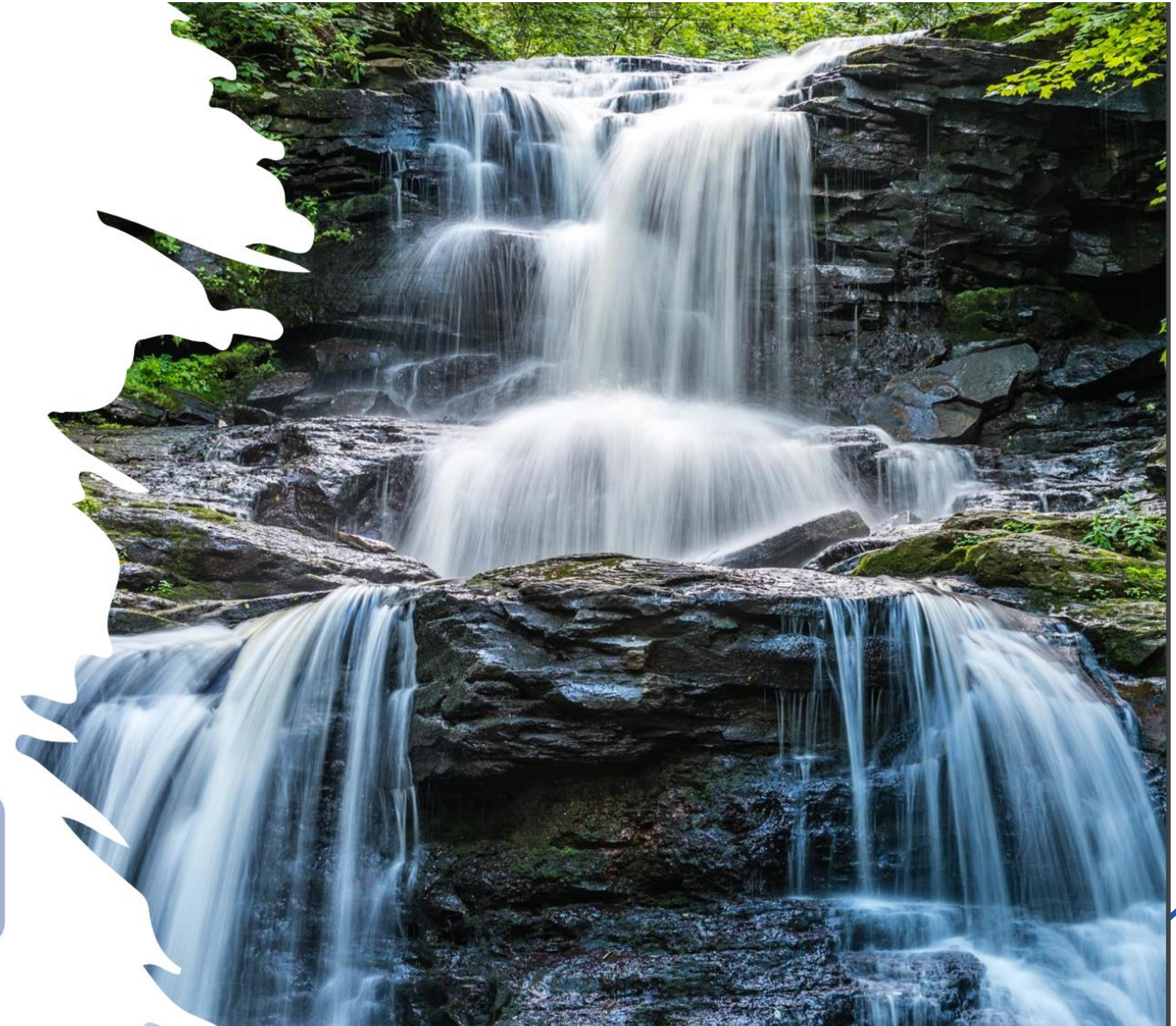
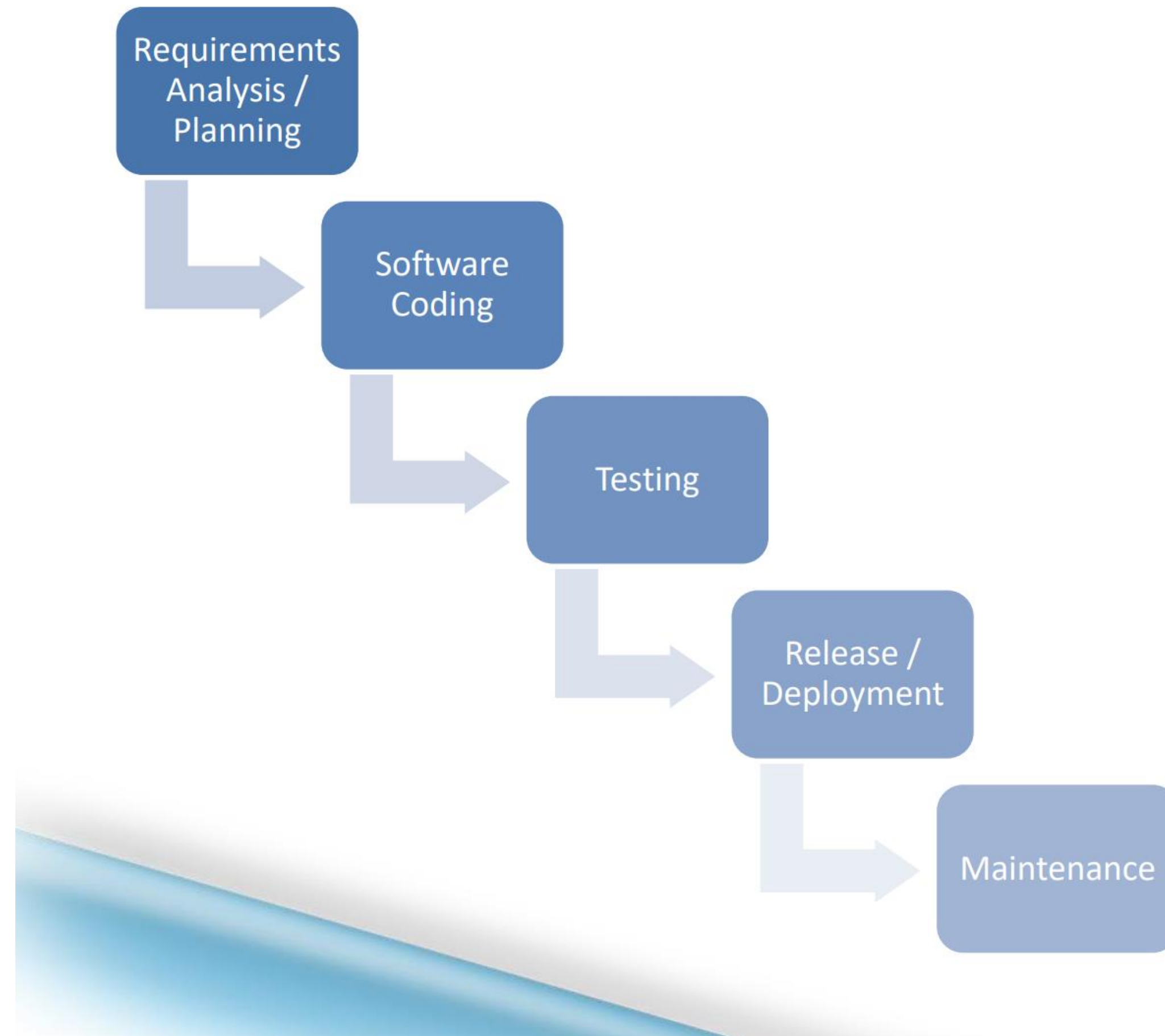
Nowadays, many control activities can be digitized on highly automated processes with a high number of transactions, delegating the execution of basic testing activities to duly designed periodic exception reporting and testing bots and process mining analyses.

Having said that, despite the sophistication of such technology solutions, **they do not provide interpretation of exceptions detected and an understanding of root causes** underlying in business phenomena such as gaps in the control environment or business culture. **Modern internal auditors must be ready to use technology as a continuous analysis tool but will have to use their expertise and business acumen to identify the true causes of issues and standard process deviations.**

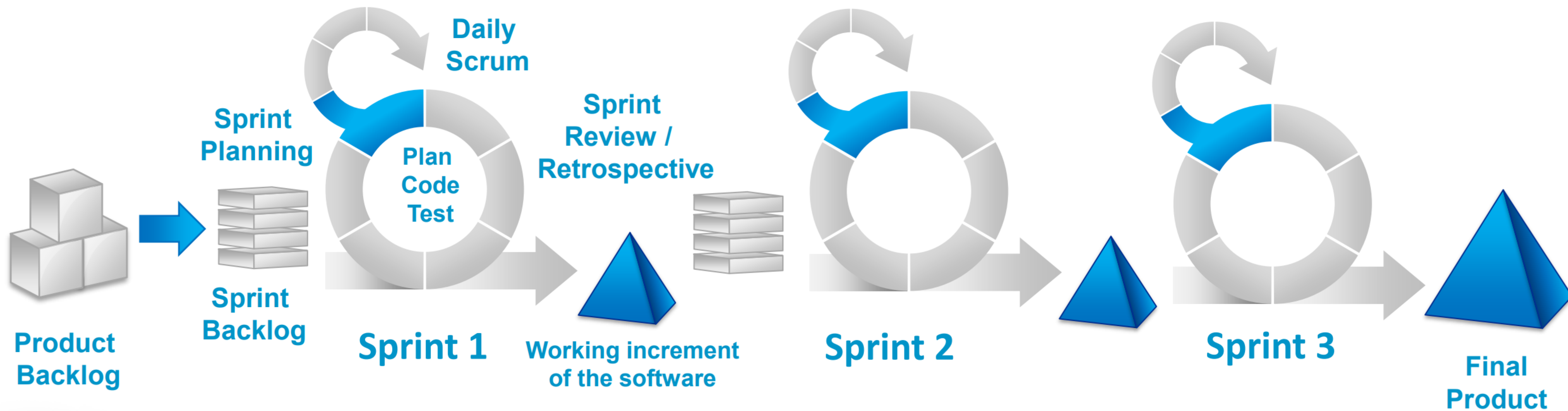
The advanced use of technology will allow internal audit to reduce the costs of low added-value activity, positioning the auditor not only as an “analyst” of symptoms but as “diagnostician” of the causes of ineffective risk management, internal control, and performances.

**Lean IA operations to communicate
'better and faster': audit agility**

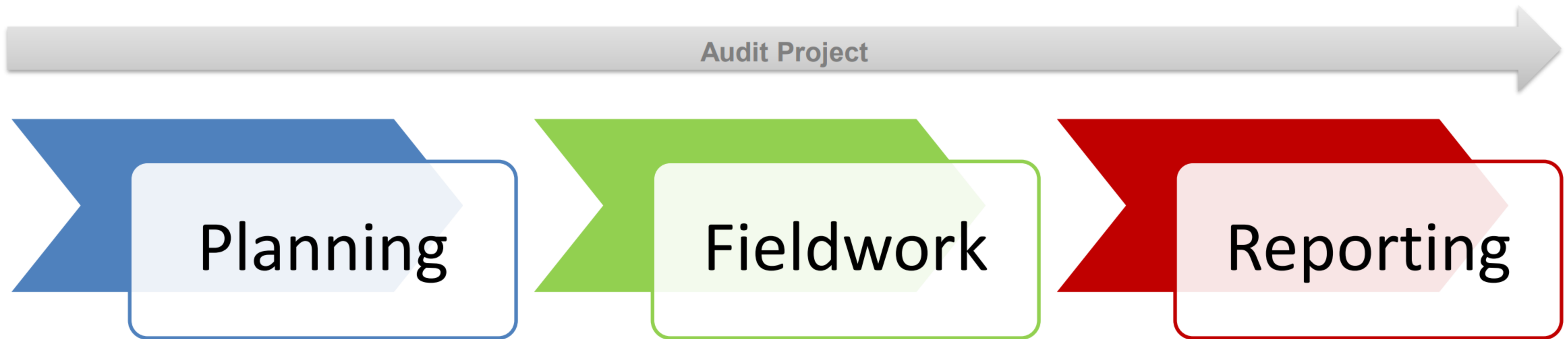
Traditional waterfall approach in software implementation



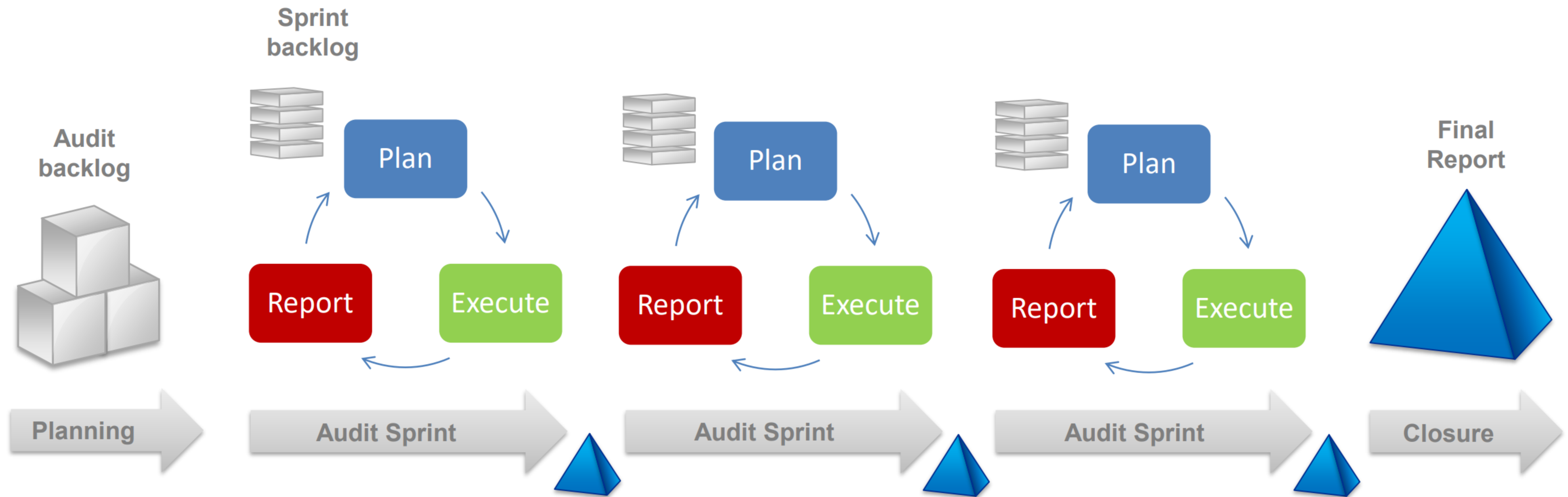
Agile approach in software implementation



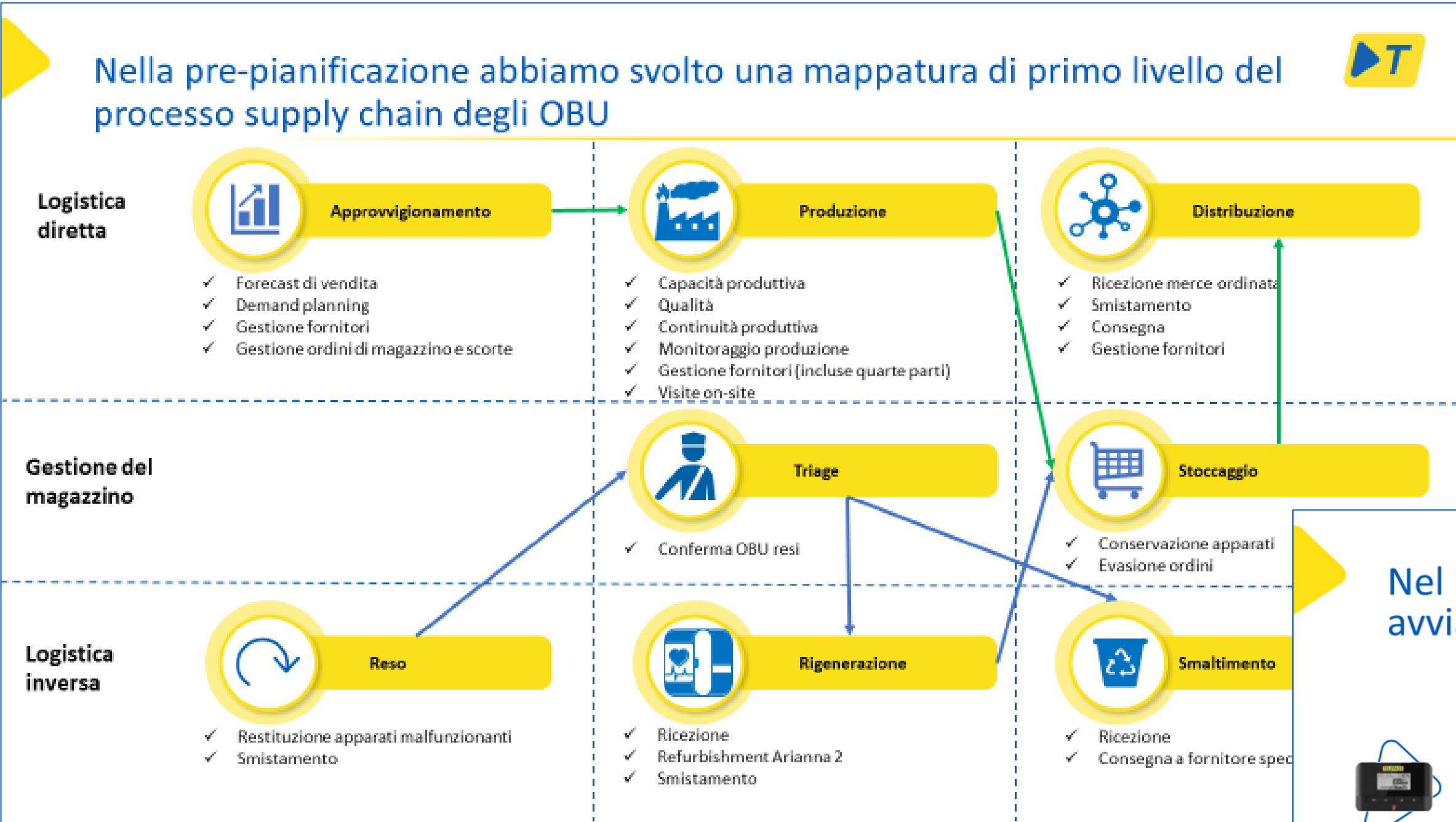
Traditional planning/fieldwork/repo audit approach






Agile approach in software implementation



An example: supply chain auditing at Telepass



Nel 2021 abbiamo ordinato Arianna 2 e V5 per un totale di circa EUR 16MM e avviato gli ordinativi del dispositivo K1, importante per lo sviluppo futuro

Ordini 2021		Prime considerazioni sui rischi	
	Circa 26K dispositivi Arianna 2 già ordinati (WIP in corso di definizione), per un valore di circa € 3,5MM . Commercializzati solo per i mezzi pesanti (truck) e dotati del più avanzato strumento di comunicazione <u>satellitare</u> (cronotachigrafo incluso).	➡	Finanziari e operativi: ottimale allocazione di liquidità, tempistiche di consegna, gestione resi e rigenerazione.
	Circa 1,5MM dispositivi V5 ordinati, per un valore di circa € 12,5MM . Commercializzati sia per i mezzi pesanti che per quelli leggeri, non sono dotati di tecnologia satellitare ma presentano un livello di <u>personalizzazione</u> maggiore (scelta di varie colorazioni).	➡	
	Nel 2019 Telepass ha intrapreso il percorso di ricerca e sviluppo della nuova generazione di OBU: il K1 . Dispositivo <u>satellitare</u> ordinato alla consociata K-Master che si fornisce da B810, utilizzabile sia dai mezzi leggeri che pesanti e grazie al quale l'utente finale potrà usufruire dei servizi <u>T-Next</u> . Circa 11K dispositivi ordinati nel 2021, per un valore di circa € 0,6MM .	➡	Strategici e operativi: i servizi T-Next costituiscono un obiettivo del piano di sviluppo strategico; controlli sul processo manufacturing B810.
	Nel 2021 non sono previsti ordini delle precedenti generazioni di apparati DM03 ed Arianna 1, dispositivi non dotati di tecnologia satellitare. Alla fine del 2020 il <u>valore di magazzino dei DM03</u> ammontava a circa € 3,37MM (circa 250K unità), mentre il valore degli Arianna 1 ricondizionati a circa € 280K (circa 12K unità).	➡	Operativi e compliance: stato di conservazione, obsolescenza tecnologica, utilizzo scorte, gestione resi e smaltimento rifiuti.

Per dare valore, possiamo focalizzare l'audit sui rischi applicabili per i diversi apparati

An example: supply chain auditing at Telepass

Una matrice dei processi e degli apparati ci aiuterà a formulare considerazioni preliminari sullo scope



	Logistica diretta			Gestione del magazzino		Logistica inversa		
	Approvvigionamento	Produzione	Distribuzione	Stoccaggio	Triage	Reso	Rigenerazione	Smaltimento
S A T	Arianna 2	Forecasting, demand planning, gestione ordini, scorte		Distribuzione di primo e secondo livello	Evasione ordini	Conferma resi	Restituzione apparati	Refurbishment presso hub logistico
	K1		Capacità e continuità produttiva, controlli manufacturing, gestione fornitori					
N O S A T	V5	Forecasting, demand planning, gestione ordini, scorte			Evasione ordini			
	Arianna 1				Conservazione apparati	Conferma resi	Restituz apparati	
	DM03							

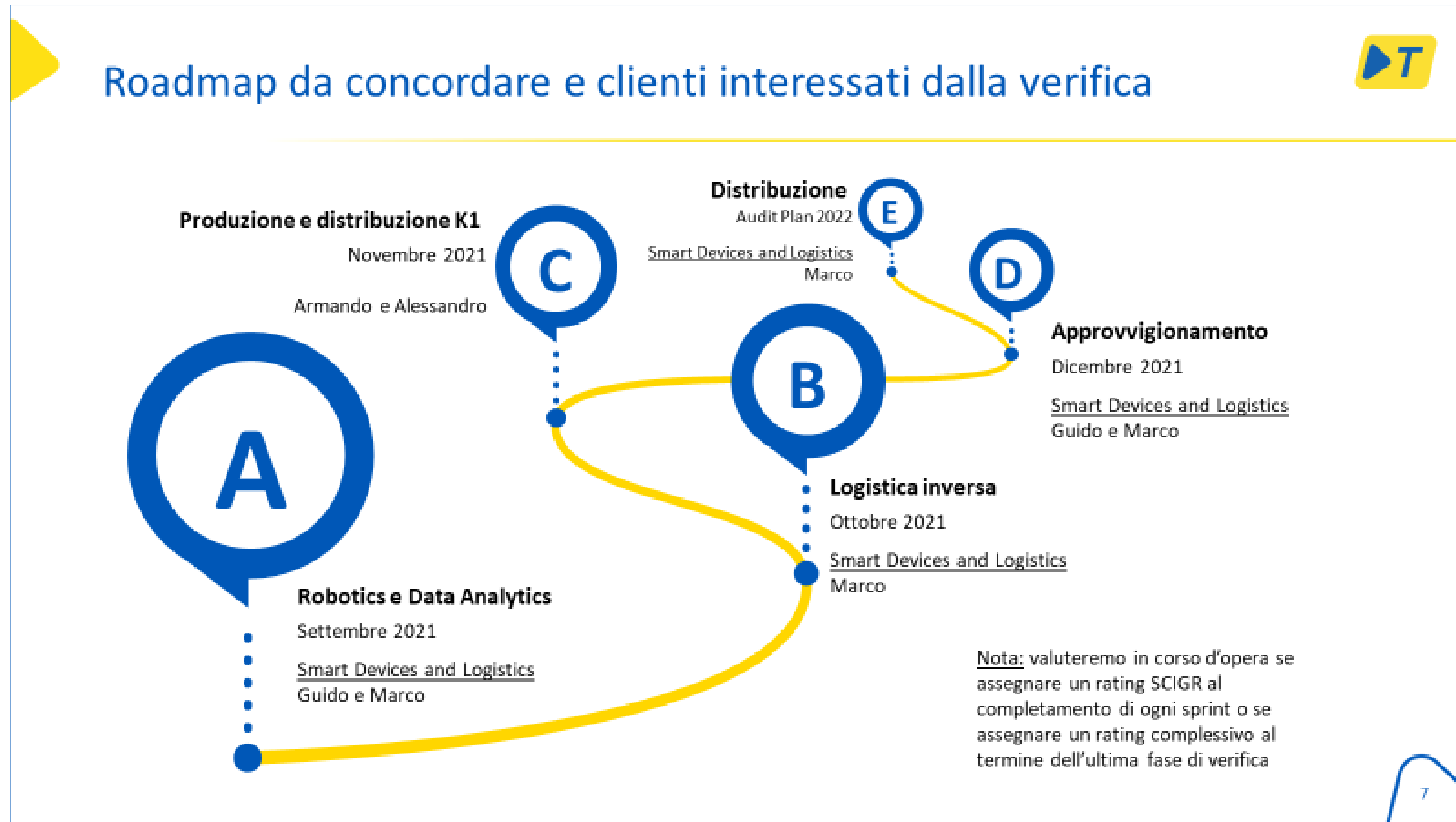
Intendiamo riutilizzare un approccio agile, suddividendo la verifica in sprint ed aggiornando tempestivamente gli stakeholders durante l'avanzamento



Sprint	Fasi di processo in scope	Apparati in scope	Potenziali rischi in scope, da confermarsi
A – Robotics e Data Analytics (richiesta del CEO)	Durata degli OBU ripetto al ciclo di vita previsto	TBD	Durata del ciclo di vita degli OBU inferiore rispetto a quella prevista con conseguente aumento dei costi operativi relativi ai resi ed impatti reputazionali legati alla soddisfazione del cliente
B – Logistica inversa	Restituzione, conferma resi (trriage incluso fornitore), refurbishment e evasione ordini	Arianna 2	Mancato reinserimento nel mercato di OBU rigenerabili o reinserimento OBU non funzionanti con conseguenti maggiori costi operativi dovuti alla mancata ottimizzazione dei resi ed impatti reputazionali legati alla soddisfazione del cliente
	Conservazione apparati in stock	Arianna 1, DM03	Obsolescenza di magazzino a causa di inappropriato stoccaggio degli OBU di 'vecchia' generazione con possibili impatti patrimoniali e perdite operative
	Restituzione, conferma resi e consegna a fornitore terzo per smaltimento	Arianna 1, DM03, V5	Danni ambientali legati alla mancata restituzione o errato smaltimento degli OBU con possibili impatti reputazionali, legali ed ESG
C - Produzione e distribuzione K1	Capacità e continuità produttiva, controlli su manufacturing B810	K1	Discontinuità nel ciclo produttivo e distributivo dell'OBU, offerta non tempestiva o di prodotti malfunzionanti con impatti sullo sviluppo del business Telepass, il raggiungimento degli obiettivi strategici e sulla soddisfazione del cliente
	Distribuzione di primo e secondo livello		
D – Approvvigionamento	Forecasting, demand planning, gestione ordini, scorte	Arianna 2, V5	Stock insufficiente o eccedente rispetto alle necessità di mercato a causa di errori nella formazione degli ordini, con impatti sulle tempistiche di consegna o inefficace allocazione di capitale
E – Distribuzione	Distribuzione di primo livello (Consezionarie) e secondo livello (Truck company e Puntiblu/Service center)	Arianna 2, V5	Incapacità di soddisfare tempestivamente la domanda per ritardi di consegna degli OBU con impatti reputazionali e conseguente perdita di quote di mercato

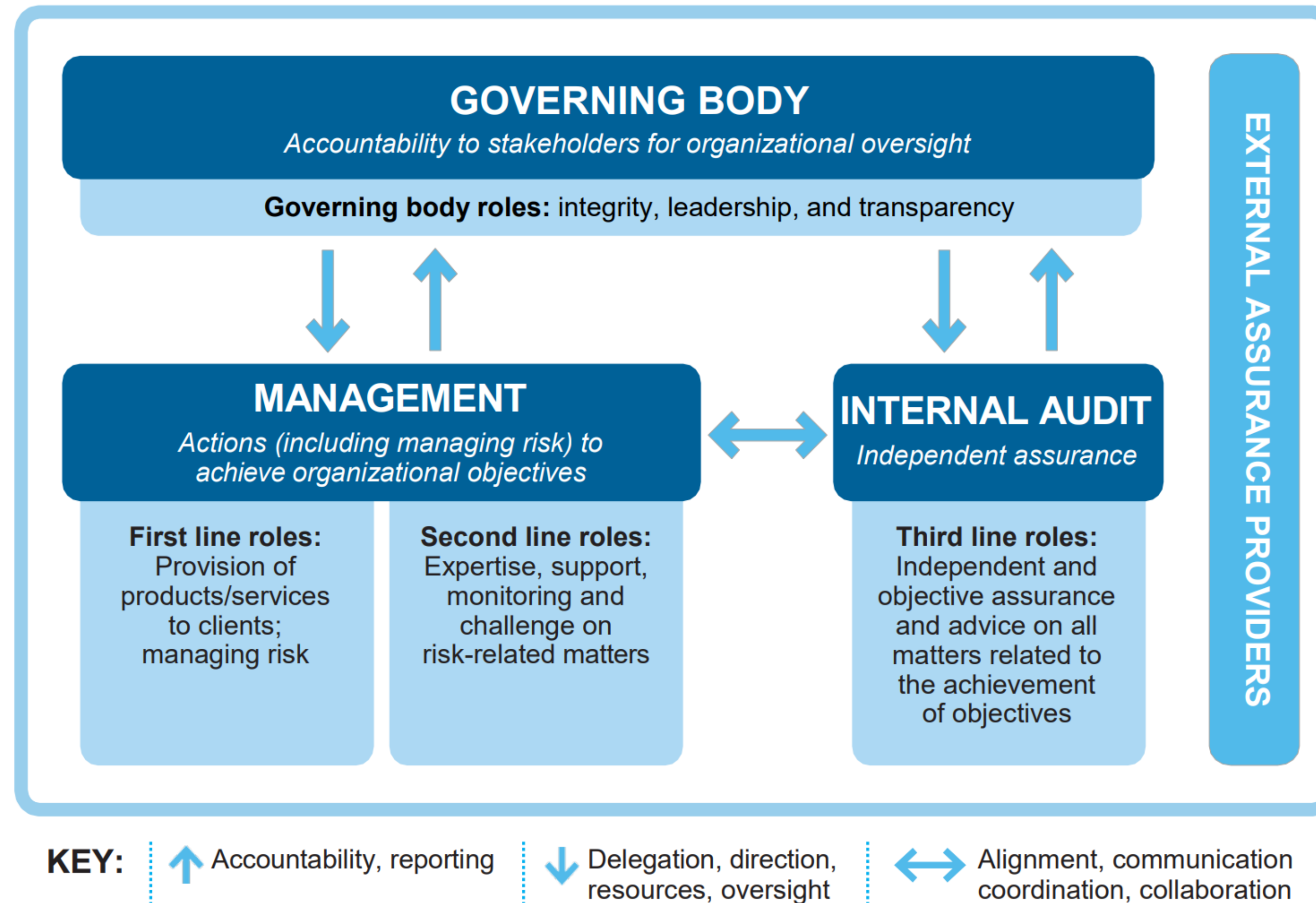
IA ritiene di escludere dallo scope i processi afferenti lo sviluppo e la produzione dei dispositivi Arianna 2 e V5, in quanto il management ha già avviato attività volte ad approfondire alcuni aspetti di tali aree. IA attenderà la conclusione delle stesse senza creare sovrapposizioni riservandosi di valutare l'esecuzione di verifiche dedicate nell'Audit Plan 2022.

An example: supply chain auditing at Telepass



Coexistence of the '3 lines model' and 'combined assurance': streamlined risk assurance

The updated three lines of defense model



The updated three lines of defense model

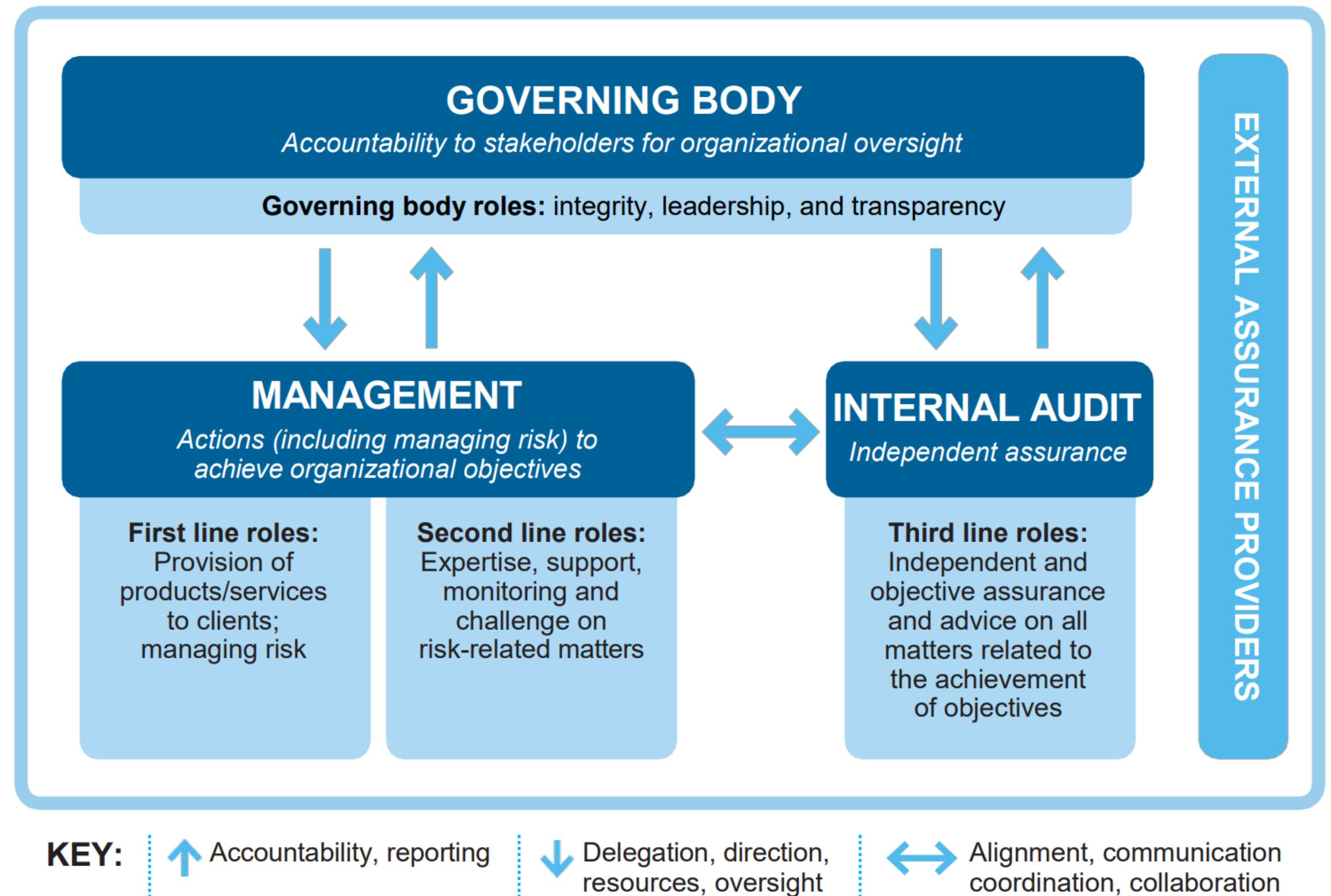
Principle 1:

Governance of an organization requires [...] assurance and advice by an independent internal audit function to provide **clarity and confidence** and to promote and facilitate continuous improvement through rigorous inquiry and insightful communication

Principle 2:

The governing body [...] establishes and oversees an independent, objective, and competent internal audit function to provide **clarity and confidence** on progress toward the achievement of objectives.

The IIA's Three Lines Model



The updated three lines of defense model

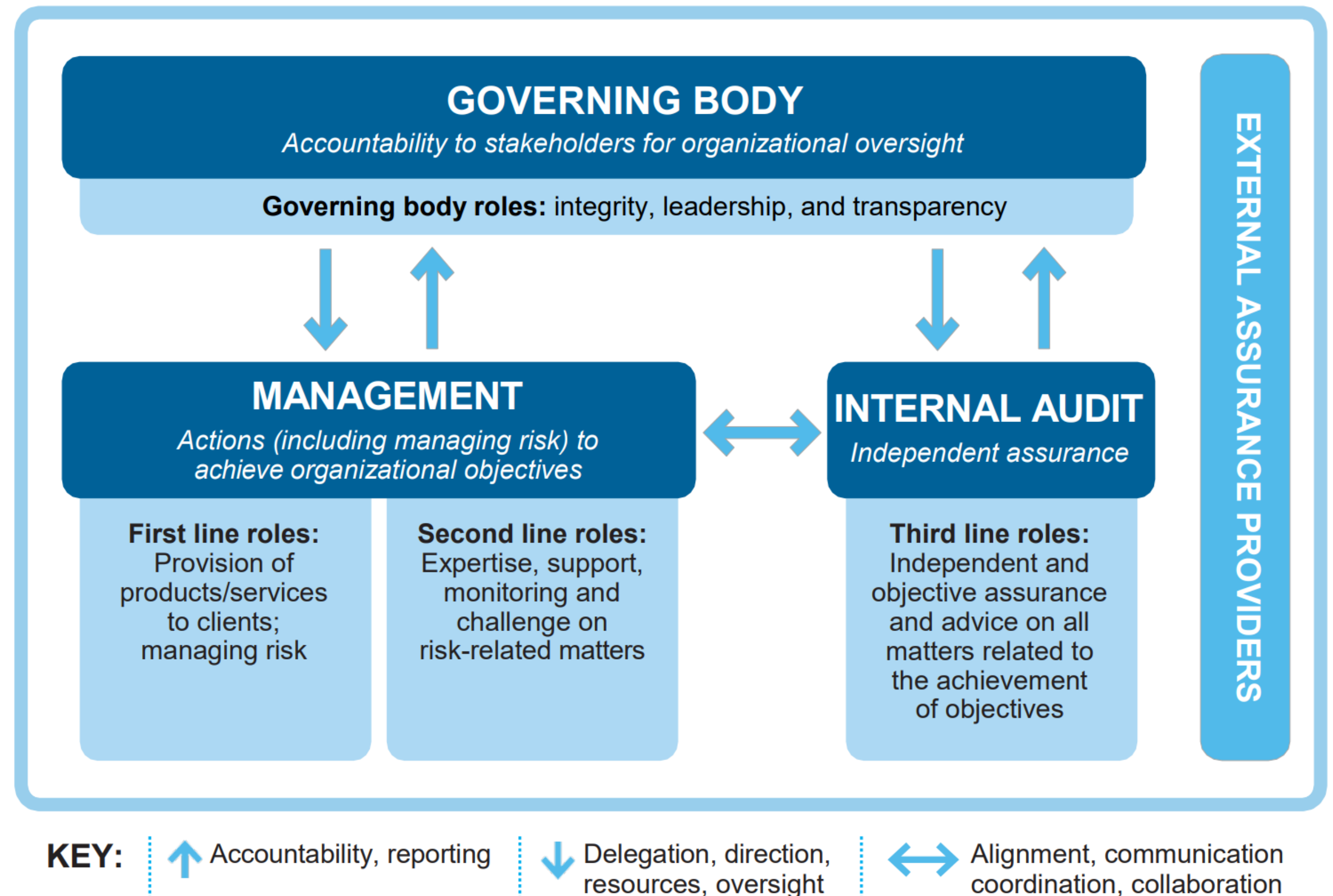
Principle 3:

Management's responsibility to achieve organizational objectives comprises both first and second line roles. First line roles are most directly aligned with the delivery of products and/or services to clients of the organization, and include the roles of support functions. Second line roles provide assistance with managing risk.

Principle 4:

IA provides independent and objective assurance and advice on the adequacy and effectiveness of **governance and risk management**. [...]. In doing so, it may consider assurance from other internal and external providers.

The IIA's Three Lines Model



The updated three lines of defense model

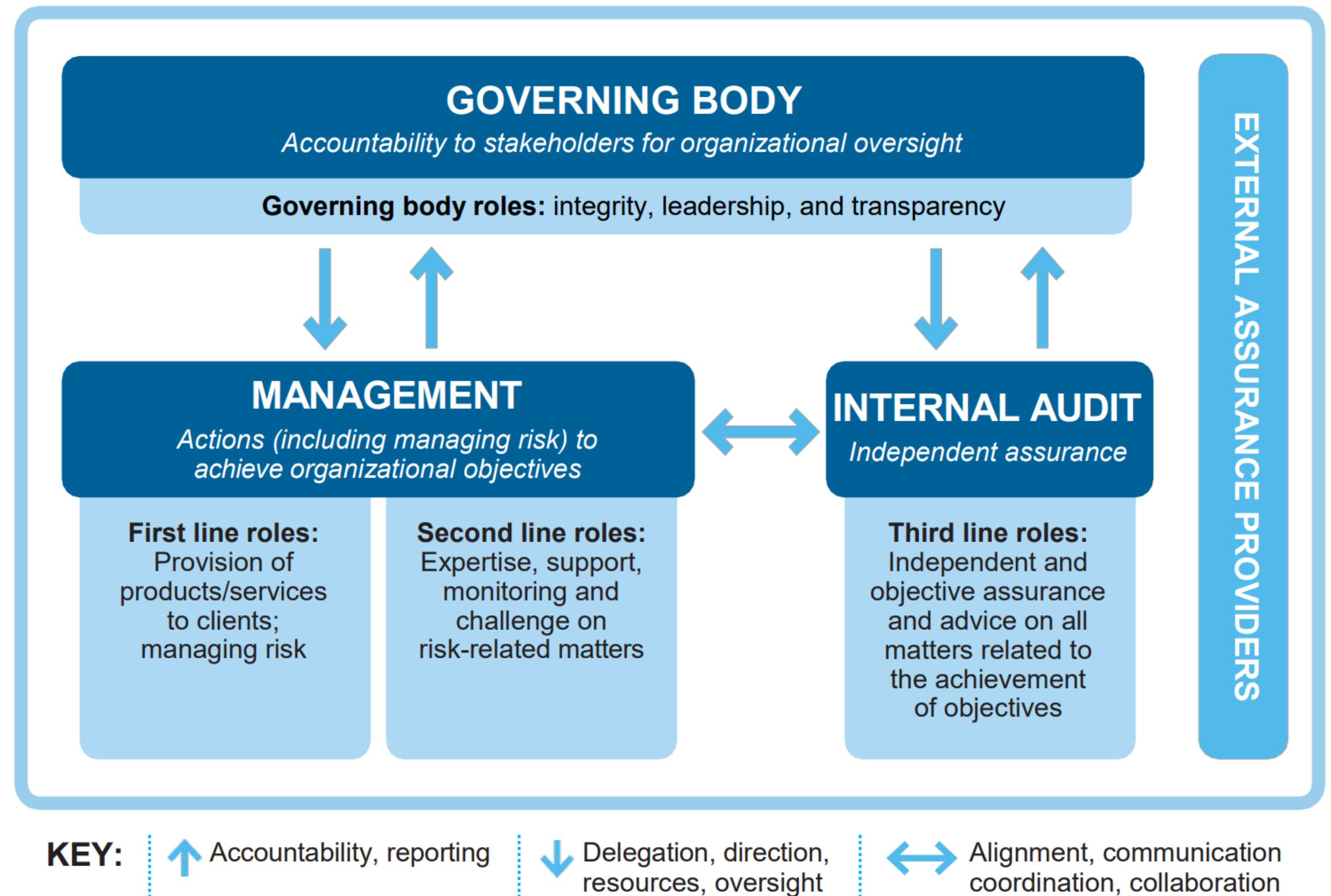
Principle 5:

Internal audit's independence from the responsibilities of management is critical to its objectivity, authority, and credibility. It is established through: accountability to the governing body; unfettered access to people, resources, and data needed to complete its work; and freedom from bias or interference in the planning and delivery of audit services.

Principle 6:

All roles working together collectively contribute to the creation and protection of value when they are aligned with each other and with the prioritized interests of stakeholders. Alignment of activities is achieved through communication, cooperation, and collaboration. This ensures the reliability, coherence, and transparency of information needed for risk-based decision making.

The IIA's Three Lines Model



"The governing body, management, and IA have their distinct responsibilities, but all activities need to be aligned with the objectives of the organization.

The basis for successful coherence is regular and effective coordination, collaboration, and communication.

COMBINED ASSURANCE

Combined assurance upcoming trajectories

- An **integrated risk assessment**, completed through active collaboration of key control functions, has the benefits of a comprehensive view of business risks, ponderated by relevance of business objectives, hence avoiding proliferation of multiple, vertical, thematic risk assessments which may conflict and confuse.
- Maintenance of an **assurance map** of risk coverage optimizes efforts and facilitates minimization of control duplications and overlap (which – by the way – should not be eliminated).
- Effective communication implies **substance over form**. **Control roundtables, discussion forums and 1-1s** promote effective communication. Formal information flows can be important, but are not sufficient.
- **Shared taxonomies** facilitates a comprehensive view of unmitigated risks and improvement opportunities.
- Shared platforms (e.g. **GRC tools**) facilitate real time sharing of information regarding risk management performance.
- In certain circumstances, **cross-line reviews** (reviews involving professionals belonging to different lines) enable leveraging subject matter expertise. However, this should be well pondered especially when they imply IA participation, because not all participants from other lines might be granted with the same independency mandate.

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- 3 A big step out of our comfort zone: from 'Risk-based' to 'Value-based' auditing
- 4 Covid-19 accelerating transition to data-driven auditing
- 5 Leaning IA operations to communicate better & faster: agility in auditing (no matter how you call it)
- 6 Coexistence of the '3 lines model' and 'combined assurance': streamlined risk assurance in action

Top 5 takeaways for today's session

- The complexity of the economic environment reaffirms how important it is that the decision-making process is based on qualitative, well-timed, and complete information. IA is expected to **offer clarity & confidence, create and protect value**.
- To offer clarity and confidence, IA should **communicate better and faster**. **Agility** in audit operations can facilitate more direct, focused communication and **influence change** more quickly.
- Data is a precious gem. Modern auditors **shall be hungry for data** to base their opinions solidly. Auditors will **evolve from analysts to diagnosticians**, since they have the acumen to **understand patterns** described by data and **conclude on risk management** adequacy and effectiveness. Easy to say, less easy to implement, not impossible to achieve.
- The three lines model requires **coordination** between control functions. While having different roles, all control functions share a mandate to **collaborate in risk management** and support achievement of objectives. **Combined assurance** is a matter many CAE's are thinking about.
- To generate value, IA should **understand** what stakeholders expect and **evolve accordingly**. As it has been for centuries, the relevance of IA in the future sits with its **ambition and ability** to evolve now.

Grazie.

CONTATTI

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