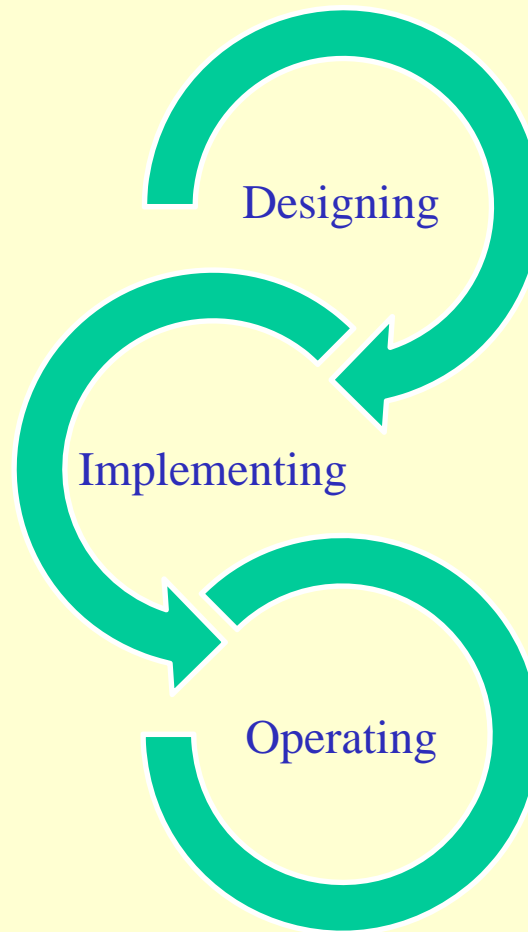


Actuarial Association of Europe

Implementation of Solvency II
and
changing roles for actuaries



Personal views

from an Actuarial Function holder

&

a local actuarial association president

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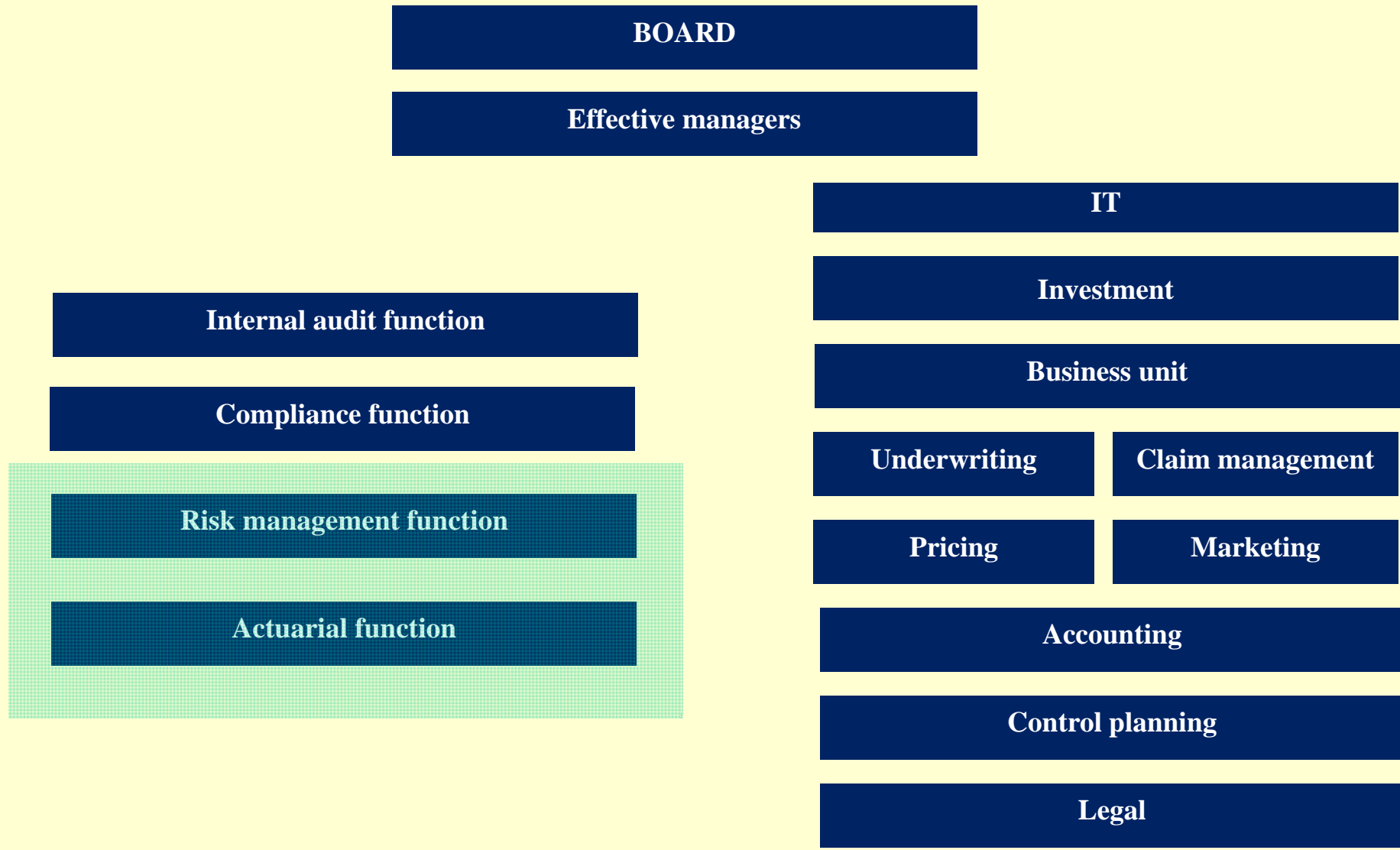
- What did we get from regulation ?

2

- What step did we achieve to transform regulation into practice ?

3

- How does it bring value in practice ?



A Risk based prudential regime addressed through 3 levels reference texts and local rules :



Level 1 texts : Solvency II Directive adopted by the European Council and Parliament :

- *Article 48 defines the Actuarial Function & Article 44 and 45 defines the Risk Function*

Level 2 texts : Delegated Acts issued by the European Commission

- *Explicit references on Article 272 for the Actuarial Function & Article 269 for the Risk Function*

Level 3 texts : Technical Guidelines and Standards issued by EIOPA

Local rules : Come in addition to EU regulation

The actuarial function

Technical Provisions:

- Coordinate the calculation
- Methodologies & assumptions
- Data quality
- Experience analysis

Opinions:

- Underwriting policy (including pricing opinion)
- Adequacy of reinsurance arrangement

Risk Management:

- Contribution to the effective implementation of the Risk Management system:
 - Risk modeling underlying the Capital Requirement calculation
 - Contribute to internal model design & use if any
 - Contribute to ORSA process

The risk management function

Role of facilitating the implementation of the risk management system:

- Role of aggregating and reporting the risk
- Coordinating the risk policies
- Responsible of the internal model if any
- Driving RSR & SFCR reporting

Conduct an ORSA:

- Developing a Risk Appetite strategy
- Measuring, monitoring and managing underlying risks
- Reporting to the Board
- Reviewing the risk management system

The “former” actuarial job: a term that may mean many things to different people.

- **Role limited to a single individual:**
No statutory role in France (In comparison to the “Appointed Actuary”, “Signing Actuary”, “Responsible Actuary” regime in some other European countries) but play a central role in the (re)insurance industry and benefits from a kind of delegation of power by the public authority (Mortality and disability tables certification, pension plans actuarial balance sheet etc....)
- **No restriction assuming an actuarial role** without being qualified by the professional association
- **Outsourcing not ruled**
- Underwriting, pricing, reinsurance management, asset management, external reviews and certifications alongside a multi norm framework

The new actuarial function gives a regulated role to actuaries in addition to their field of competence.

- **A new regulated role** (*Regulated role limited to a single person – The Chief Actuary Officer*). The board is responsible for signing off solvency Balance Sheets and approving the Actuarial report.
- **Fit & proper condition**, it makes much easier for qualified professionals to fulfill the Chief Actuary Officer function (*not limited by the French Authority*)
- **Notion of segregation of duties without restriction on organizational structures**
- **In case of outsourcing** a part of the key function, the responsibility is nevertheless hold by the internal personal in charge of the outsourcing supervision
- **Considerable potential overlap between key functions.**

The 2 new AF & RMF create new responsibilities for actuaries.

- At the AAE level :
 - Ensuring that the existing code of conduct answers the new needs
 - Developing new standards of practice :
 - ESAP 1 General actuarial practice
 - ESAP 2 Actuarial Function Report under Solvency 2
 - Creating a role of the actuary task force

In France, since no statutory role exists until now, the Professional Association assists the transition to the recent context and help actuaries getting more food to challenge the Executive decision-making



Build technical & educational standards : Translate & Adopt ESAP 1 & ESAP 2, new standards of practice on model education guideline % ORSA, the Life BE & the NL BE

Build and enforce a new **code of conduct, introducing “the responsible actuary”**



Stimulate **interactions** between Actuarial Function & Risk Function stakeholders through working groups

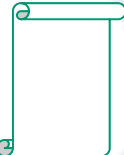


Help in understanding regulatory requirements and solving conflicts of interest

Survey who is AF or AMF, create AF & RMF meetings

The new French Code of conduct for actuaries, holder of a regulated function :

« **3.17.** Lorsqu'un actuaire se voit confier dans l'entreprise la responsabilité d'une fonction visée par la réglementation, notamment le porteur de fonction actuarielle ou de la fonction gestion des risques, celui-ci se doit de se doter des moyens pour exercer ses fonctions et en particulier s'assurer qu'il est à jour dans ses connaissances techniques.



L'actuaire exerçant une fonction visée par la réglementation est responsable du contrôle des travaux préparatoires à l'élaboration de son avis. Il doit également s'assurer de la bonne compréhension des outils et méthodes utilisées pour établir les résultats.

Il s'appuie pour cela sur les Normes Professionnelles établies par l'Institut des actuaires pour ces membres en situation de fonction visée par la réglementation pour mener à bien leurs travaux et en communiquer de façon adaptée les hypothèses et limites. Les membres doivent suivre ces Normes. En cas d'impossibilité ou de doute, les membres doivent informer aussitôt la Commission de déontologie.

L'actuaire en fonction visée par la réglementation doit agir, dans le cadre de ses fonctions, en privilégiant les aspects techniques et conserver son indépendance par rapport à des contraintes d'une autre nature notamment de type rémunération/honoraires. »

The new French Code of conduct for actuaries, holder of a regulated function :

« **3.17.** When an actuary is holder in the company of a regulated function (HRF), including the actuarial or the risk management function holder, it must acquire the means to exercise his functions and in particular ensure that his technical knowledge is up to date.

The actuary, HRF, is responsible for controlling the preparatory work to form his opinion. He must also ensure the proper understanding of the tools and methods used to set the results.

He relies for this on the Professional Standards, established by the Institut des Actuaire for its members HRF, to carry out his work and communicate in an appropriate way the assumptions and limitations. Members must follow these standards. If unable or doubt, members must immediately inform the Commission of Ethics.

The actuary, HRF, should act, as part of his duties, focusing on technical aspects and maintain his independence from the constraints of a different nature in particular of remuneration / fee. »

1

- What did we get from regulation ?

2

- What step did we achieve to transform regulation into practice ?

3

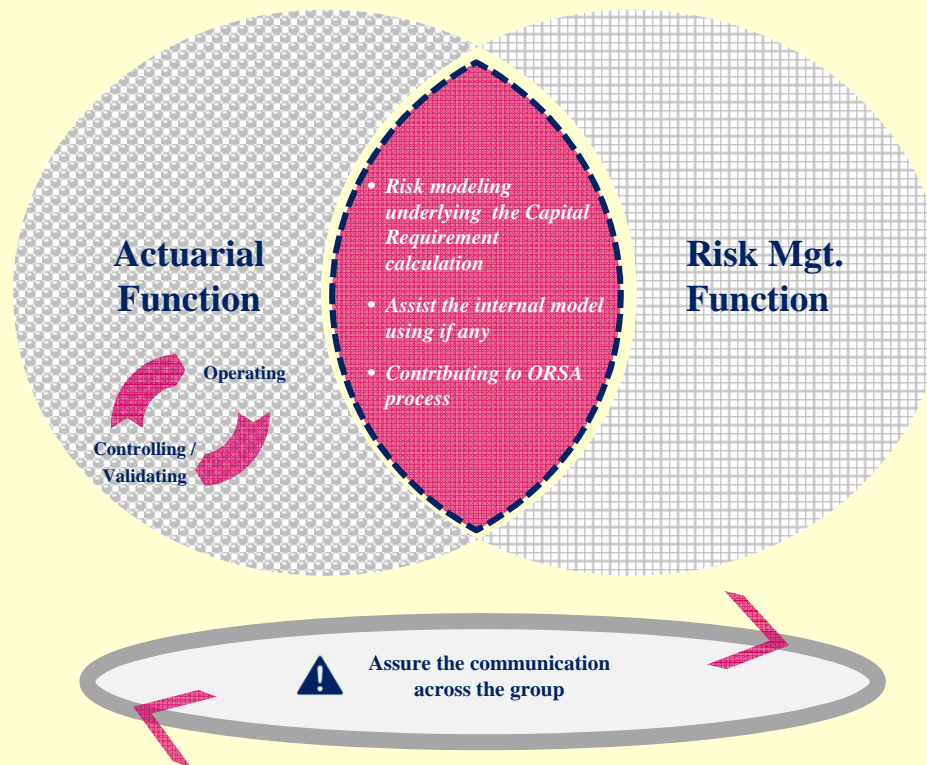
- How does it bring value in practice ?

How long from start to target ...



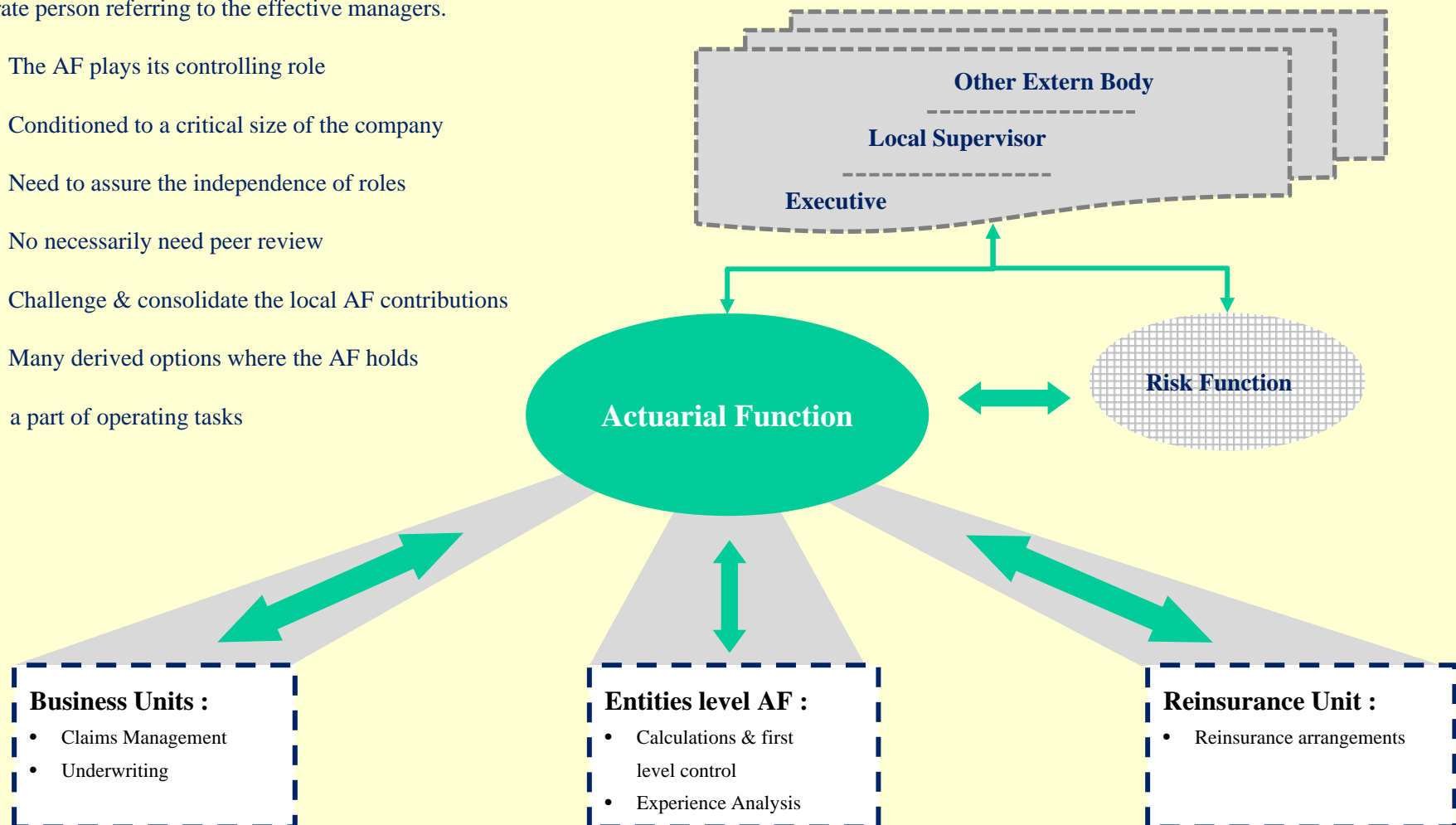
Overlaps between AF & RMF functions

Risk Management function requires input from the Actuarial Function, so segregation of duties does not necessarily mean full separation in two organizational units.



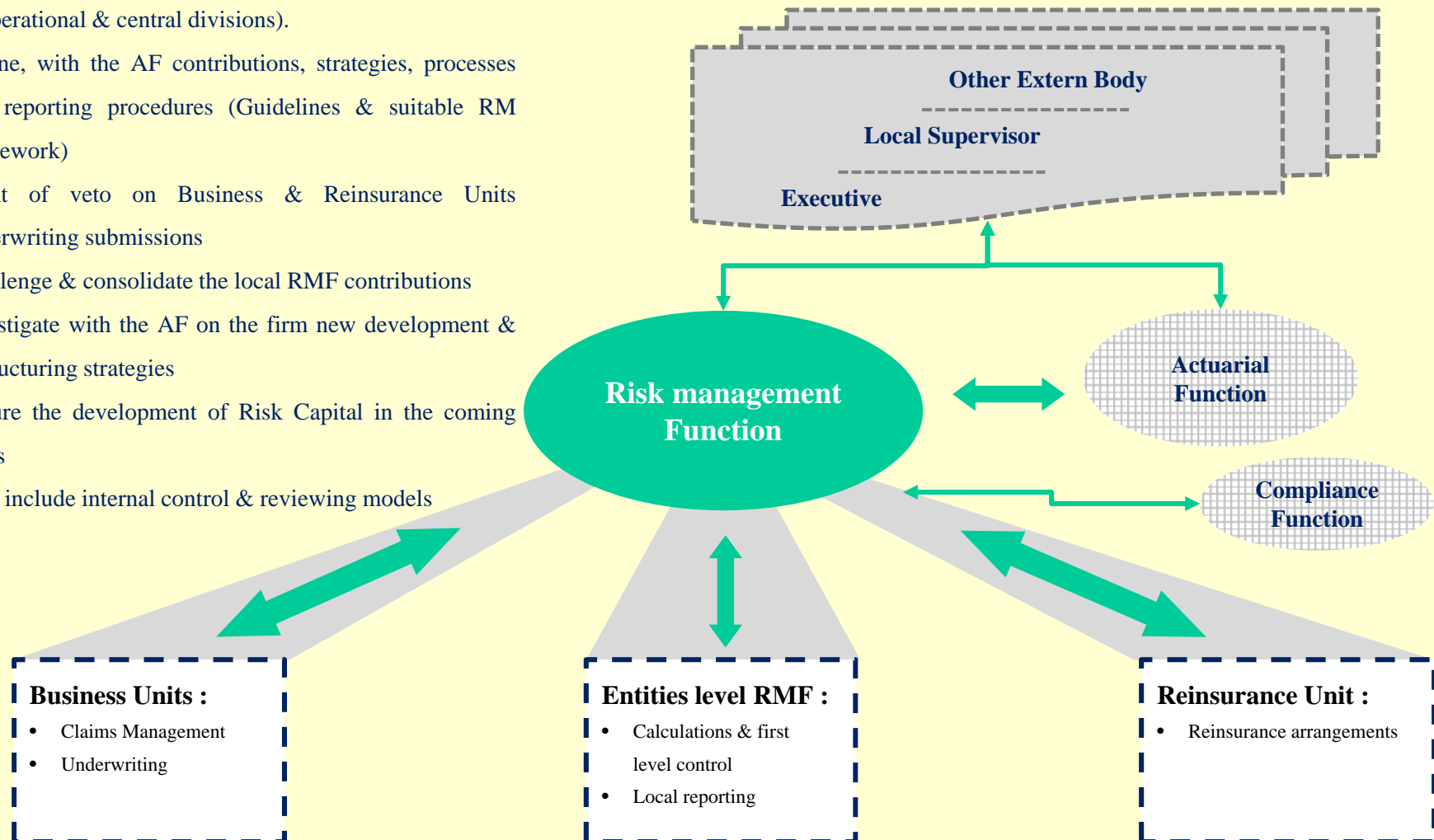
Two separate person referring to the effective managers.

- The AF plays its controlling role
- Conditioned to a critical size of the company
- Need to assure the independence of roles
- No necessarily need peer review
- Challenge & consolidate the local AF contributions
- Many derived options where the AF holds a part of operating tasks



Form with the Actuarial & the Compliance Function the **2nd line of defense** by assuring the overarching RM activities (monitoring of risks at operational & central divisions).

- Define, with the AF contributions, strategies, processes and reporting procedures (Guidelines & suitable RM framework)
- Right of veto on Business & Reinsurance Units underwriting submissions
- Challenge & consolidate the local RMF contributions
- Investigate with the AF on the firm new development & restructuring strategies
- Assure the development of Risk Capital in the coming years
- May include internal control & reviewing models



Conflicts of interest in splitting responsibilities may occur when ...



Associating operating and controlling

- Holding the computation & the review of TP
- Calculation of capital Requirements and validating models
- Involvement in Underwriting and Reinsurance units VS opinion of the Actuarial Function

Remuneration arrangement based on profits

More formalization and documentation in case of conflicts of interest in splitting responsibilities...



Writing agreement policies between stakeholders.

Keeping accurate process notes

Setting governance committee terms of reference

Taking minutes of formal decisions

Setting formal file structures, directories, etc.

Group Actuarial Function issues...



Must keep **efficient articulation** on driven actions at entity level



Have a straight understanding of **top-down and bottom-up issues**

Need to enhance **reactivity** when launching new projects at entity level

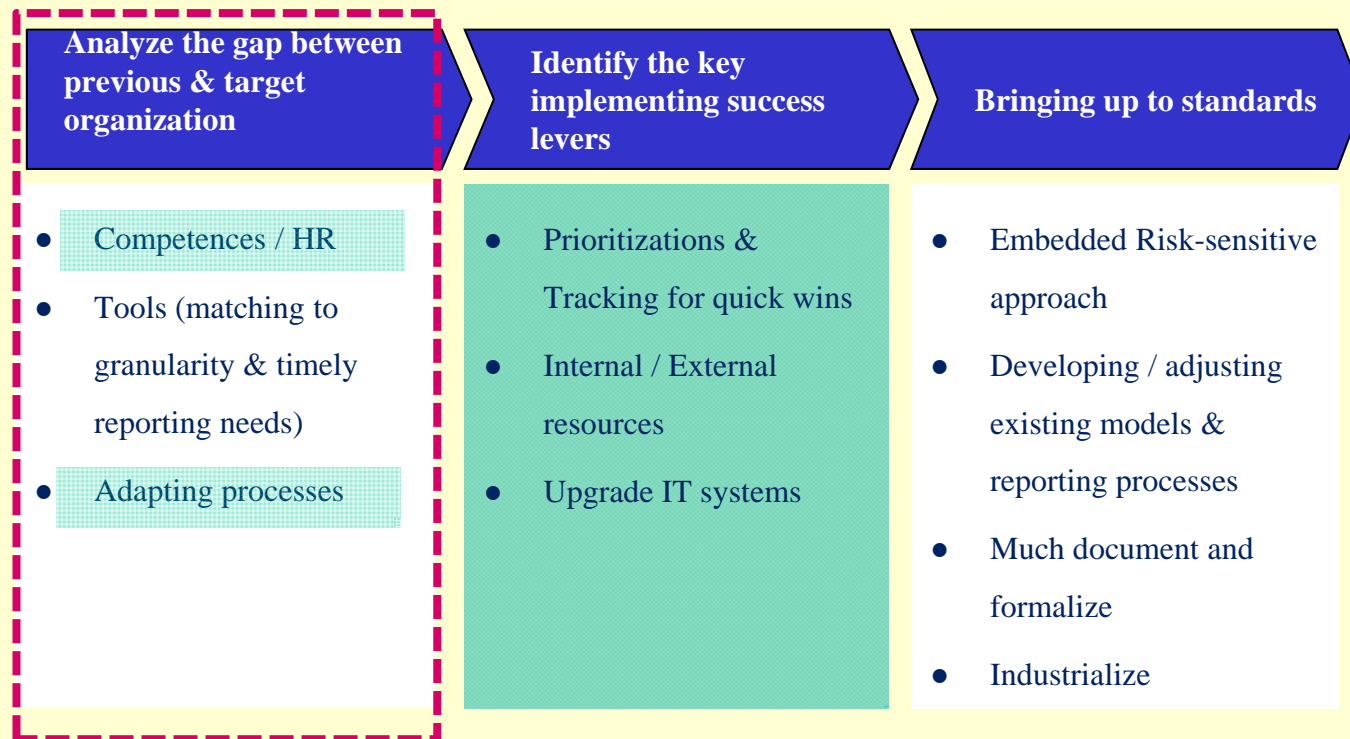


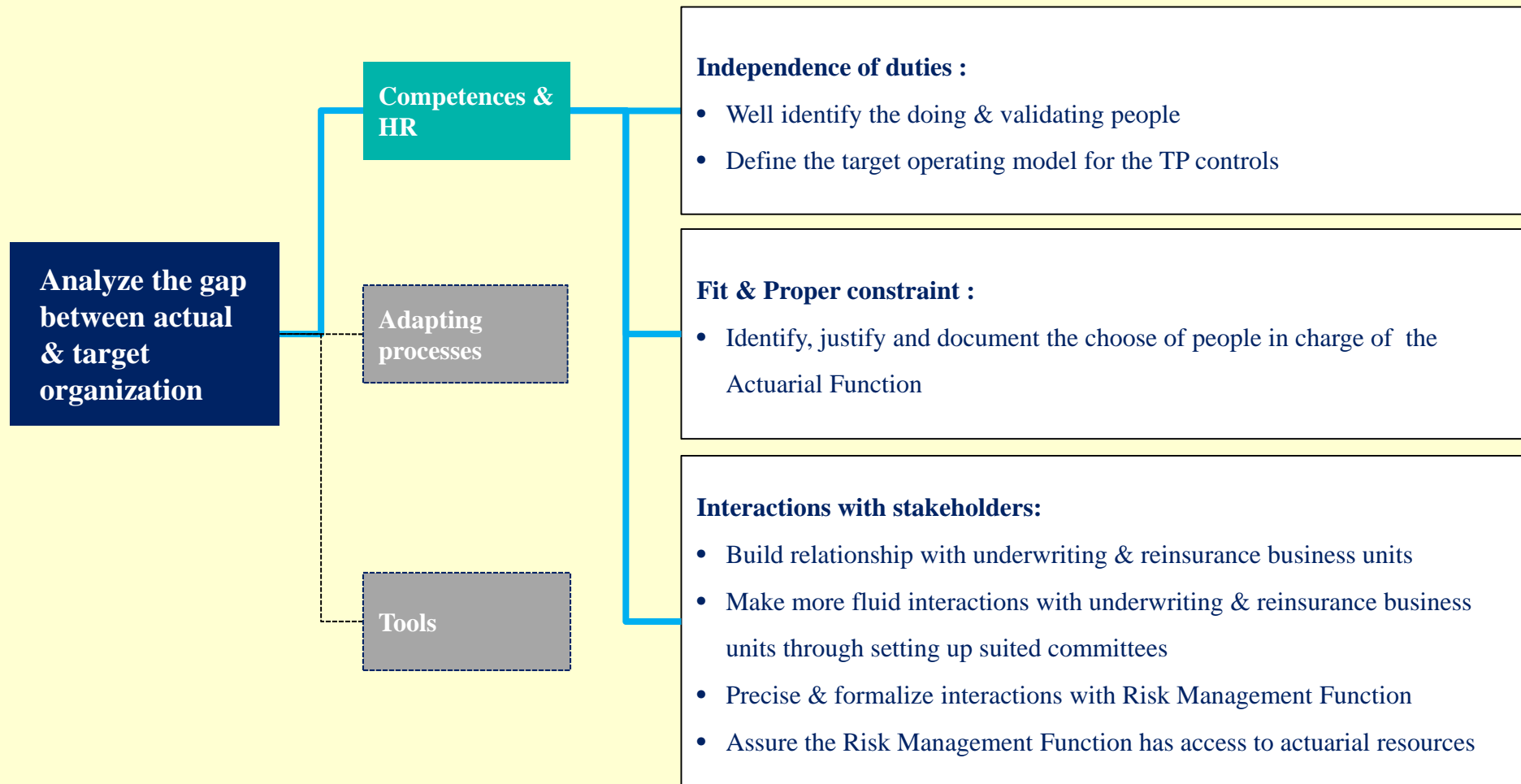
Facilitate **follow-up** from a centralized management perspective

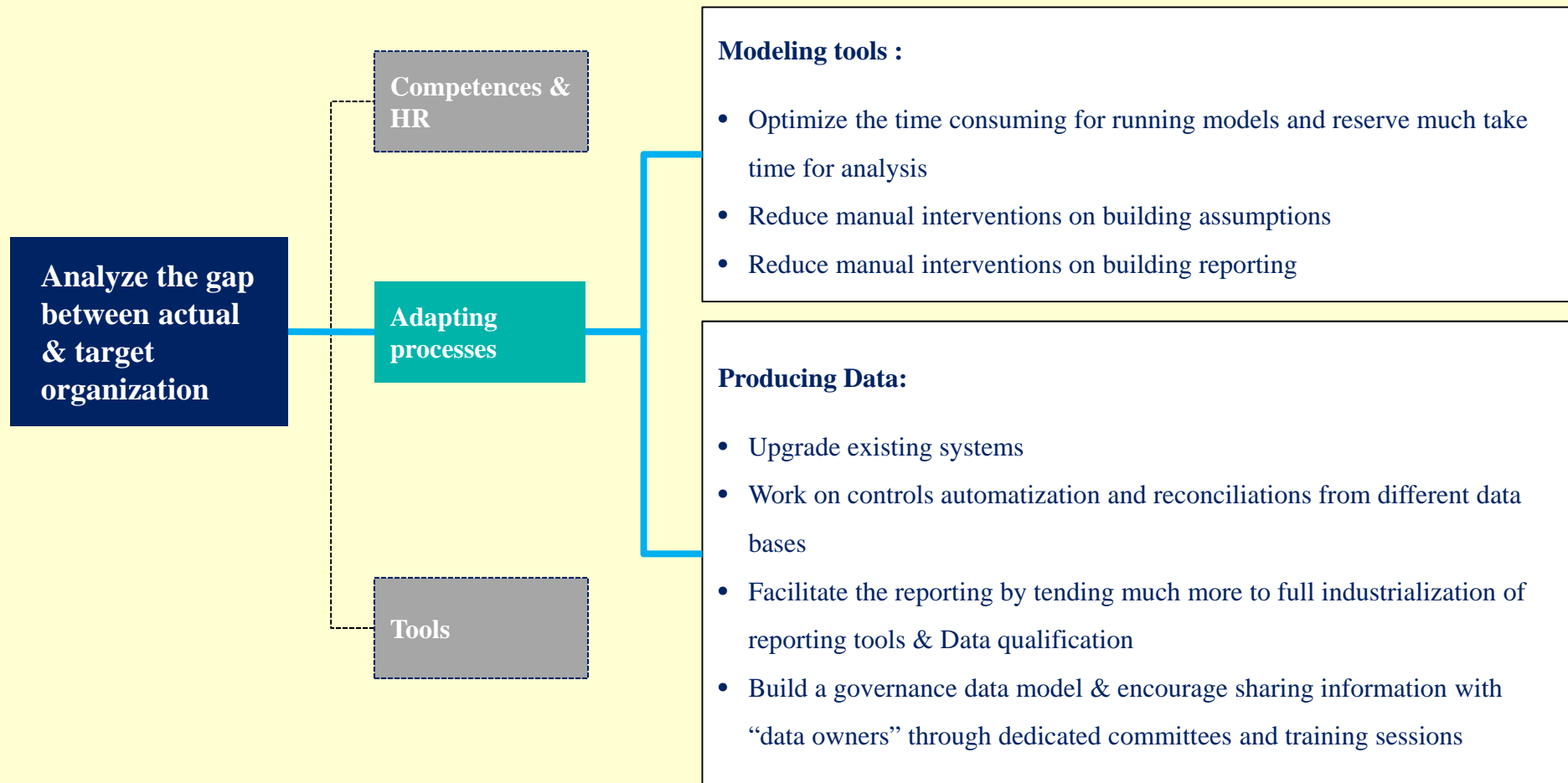
Keep an eye on on-going projects rolled out within entities

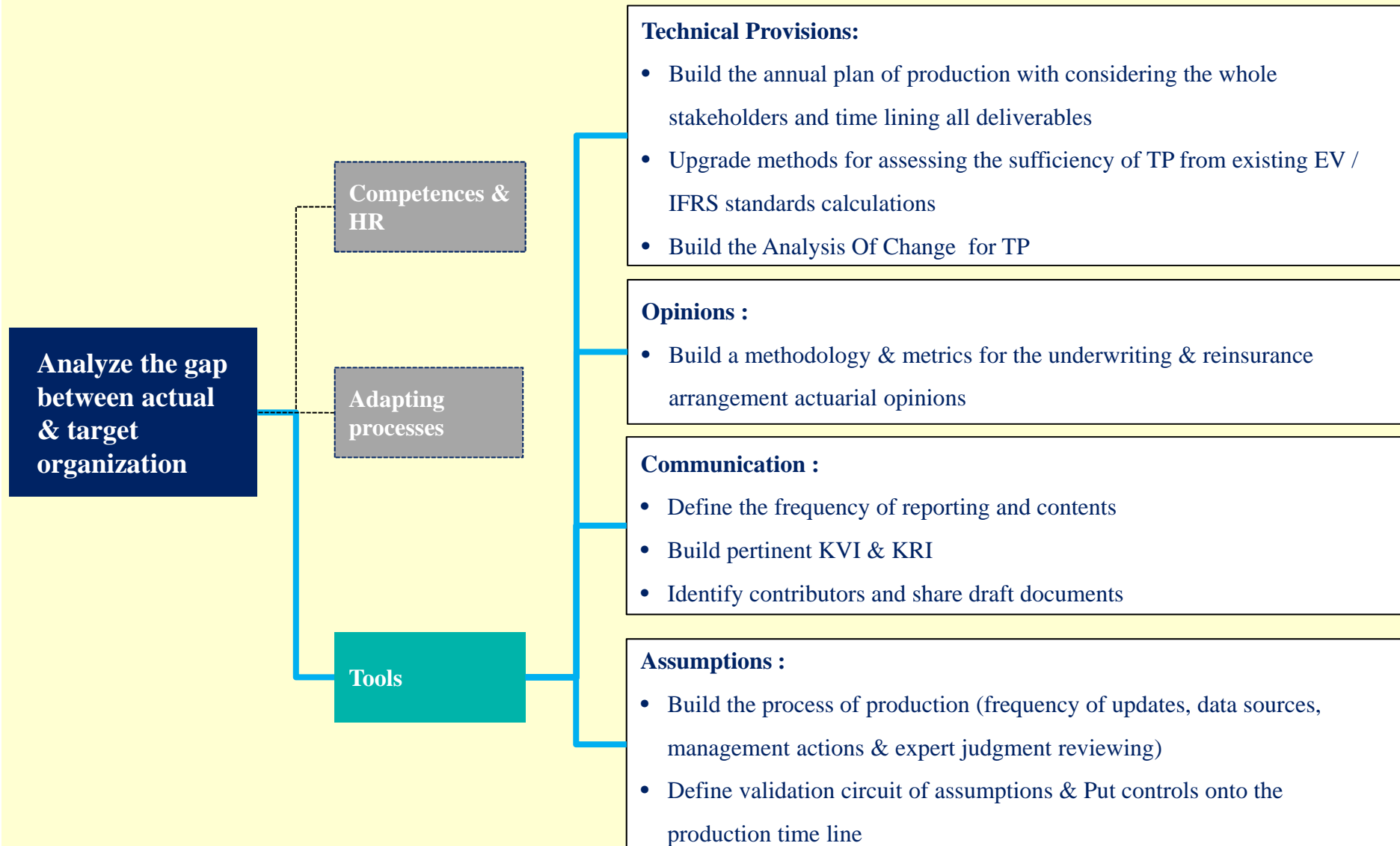
Take into account **differences between local regulatory requirements**

The Actuarial Function implementing under Solvency 2





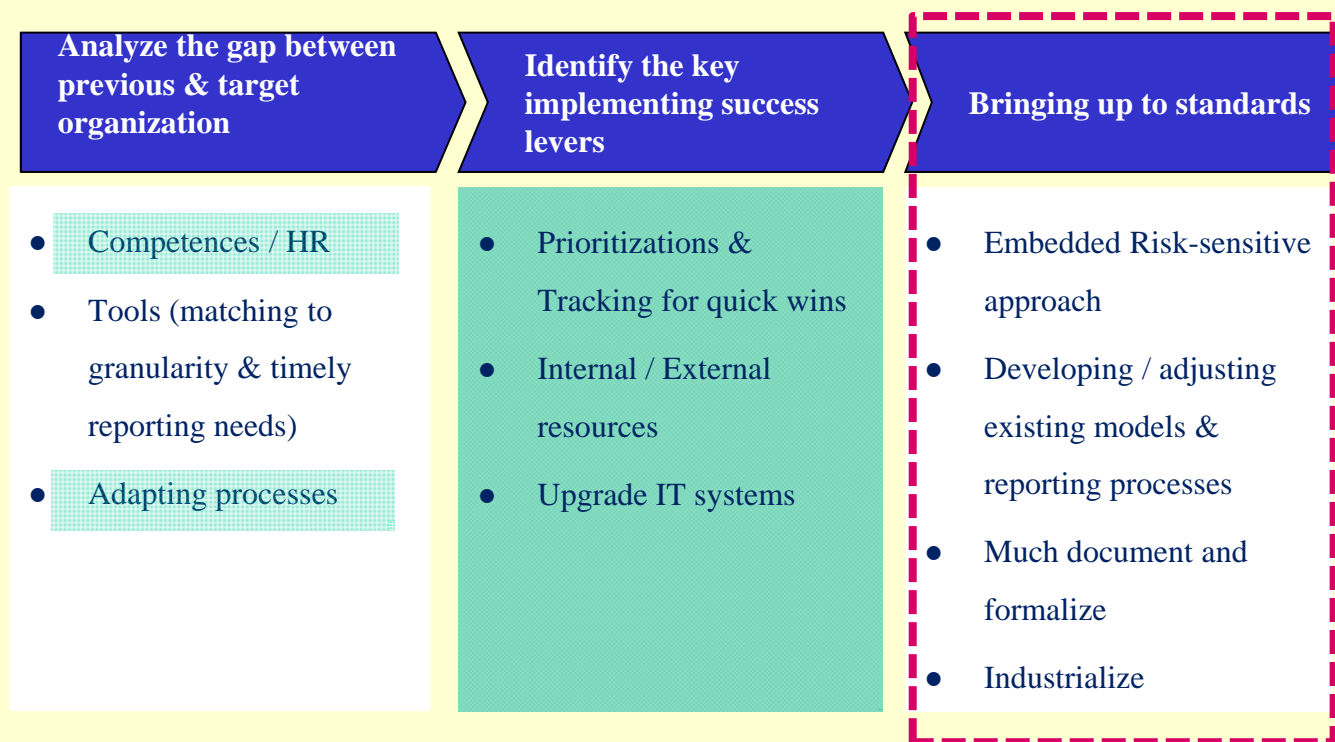




Bringing up to standards

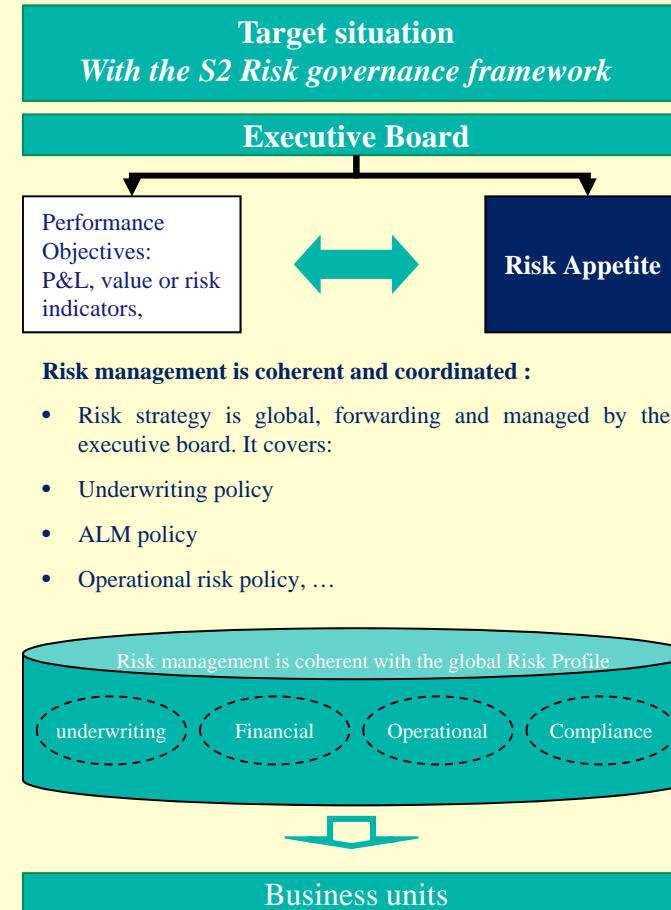
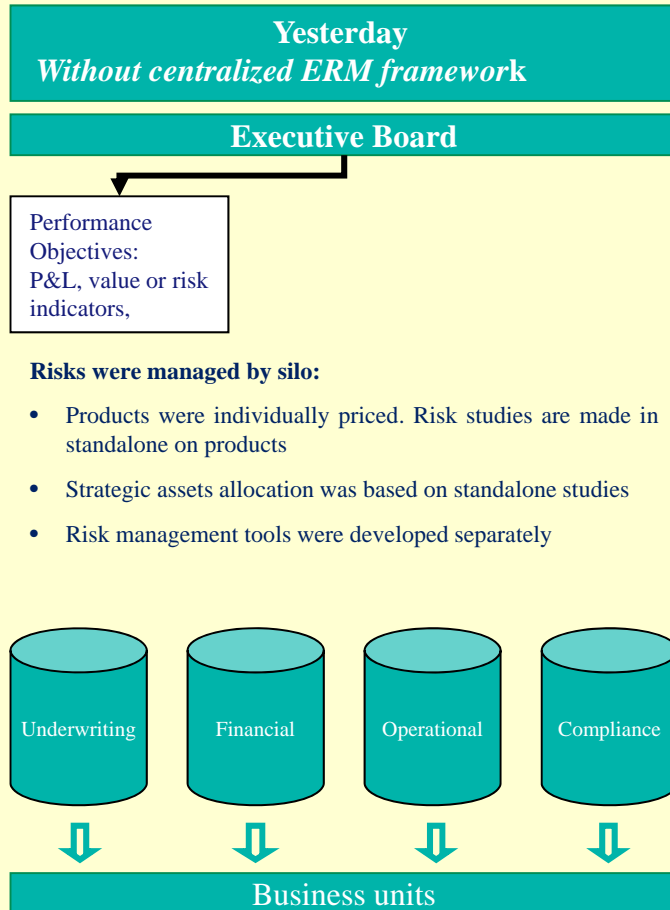


The AF & RMF implementing under Solvency 2



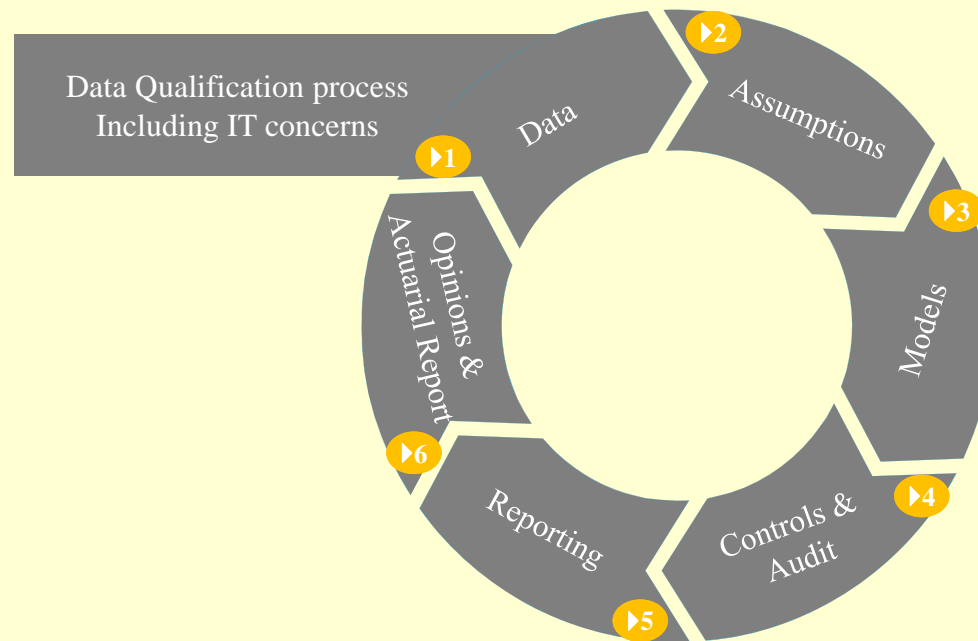
Bringing up to standards

Embedded a Risk-sensitive Approach

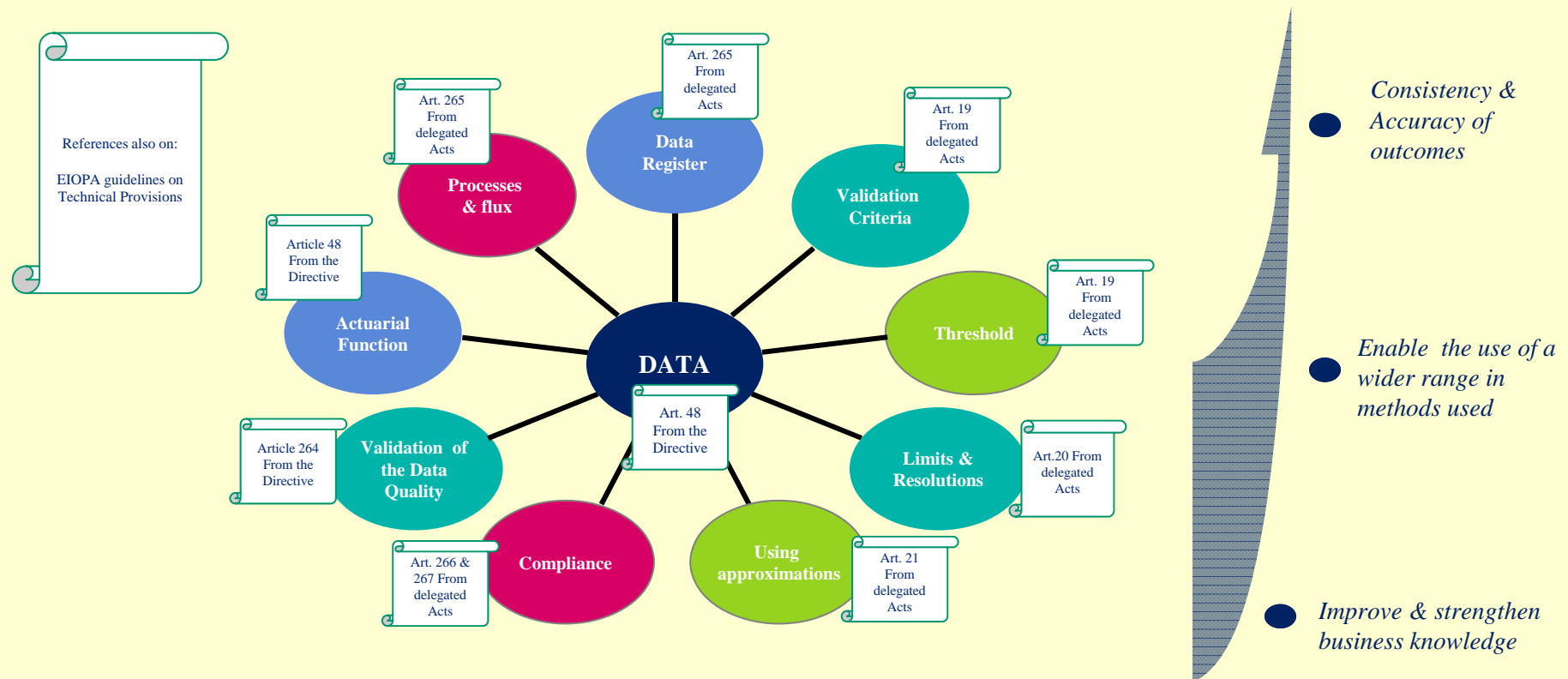


➔ **Embed risk awareness more closely into the governance**

More in tune with the “traditional actuaries” skill-set but with more formalization on setting best-estimate assumptions, and may need to increase the sophistication and robustness of the modelling systems used.



Higher requirements and higher frequency on reporting Data quality imply more focus on Data management process



➔ **Actuaries are broadly interested in a heavy processed Data management**

Prepare Data & assumptions

- Formalize the collect of data
- Control Data Quality (transformation / enrichment, storage, aggregation, quantitative & qualitative reporting)
- Document the appropriateness hypothesis regarding the model

Need to check and constantly manage Models

- Coming down for the appropriateness of the assumptions imply to **describe**:
- How does the business run in the real life ?
 - How does the modelling and projection conventions match with the reality
 - What pertinent simplification of the reality and why ?
 - The detailed specification retained (sometimes with testing parallel modelling)
 - Controls the consistency between the input & output of models
 - The architecture for the target documentation framework & what governance for the assumptions (“HLM” committee)

● Detailed Reporting Requirements

● Detailed use Requirements

● Regulatory & Technical Standards Requirements

● Detailed business Requirements

➔ **Need to more document calculation processes and underlying assumptions**

Technical Provisions implementation

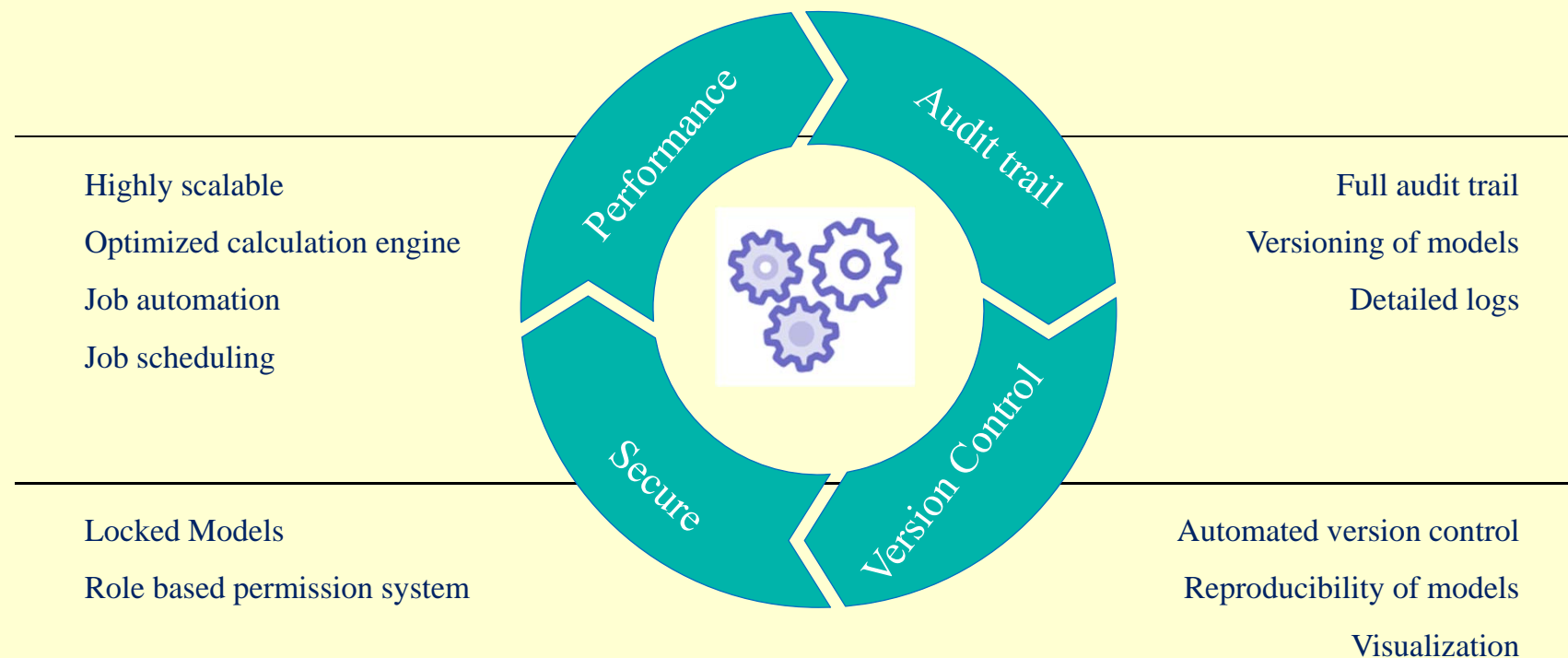
- Drive the transition to Solvency 2 regarding to accounting and valuation purposes (IFRS, EV)
- Run an appropriate Solvency 2 framework in terms of technical standards
- Manage the Solvency 2 relationship with supervisors
- Provide Solvency 2 training with a view of changing risk culture



Governance of models

- Set up norms applicable to modeling and models use
- Model risks & produce documentation and codes models in a suited IT platform
- Produce norms & models guidelines to users
- Manage the relationships with the internal and external bodies to challenges methodologies applied

Higher requirements and higher frequency on reporting imply a transition to more demanding calculation tools and more controls



➔ **Actuaries put into consideration IT concerns and adopt a high level control process**

Reviewing the reporting process

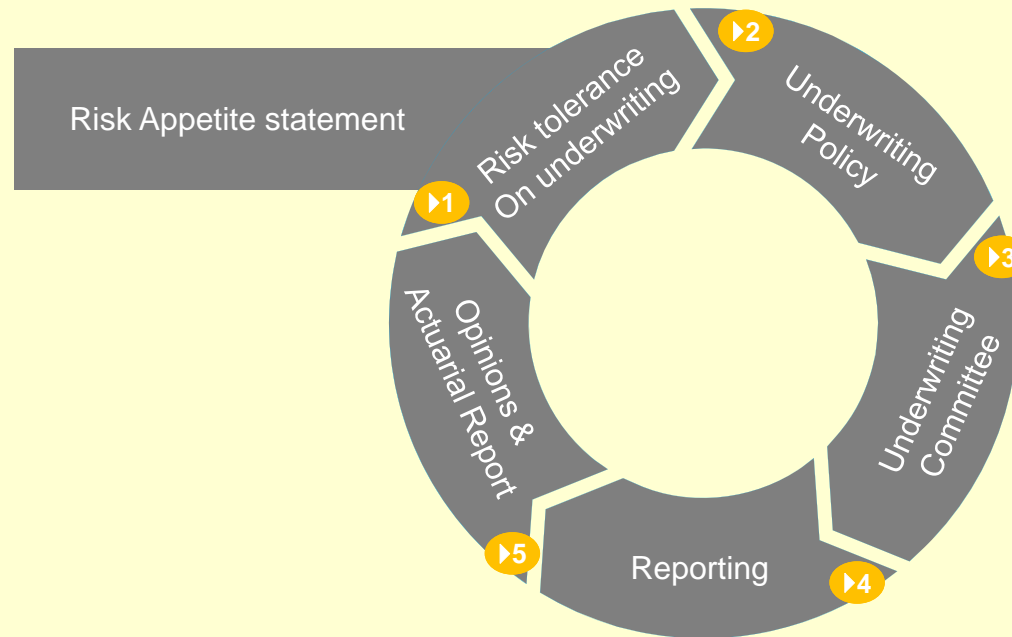
- Define the reporting procedure
- Build a consistent change Analysis & Consolidated reporting
- Manage constraints for Internal / External communication (predefine / custom querying tools for suited format file required - XBRL)

Building KVI & KRI

- Set up the computation
- Steer the internal control of the process of KVI and KRI 's calculation
- Prepare consolidated reporting of these indicators within the deadlines
- Reconcile consolidated accounting date with consolidated indicators



Actuaries play a new role as contributors to the yearly underwriting cycle



Actuaries is in the heart of the yearly hedging cycle.



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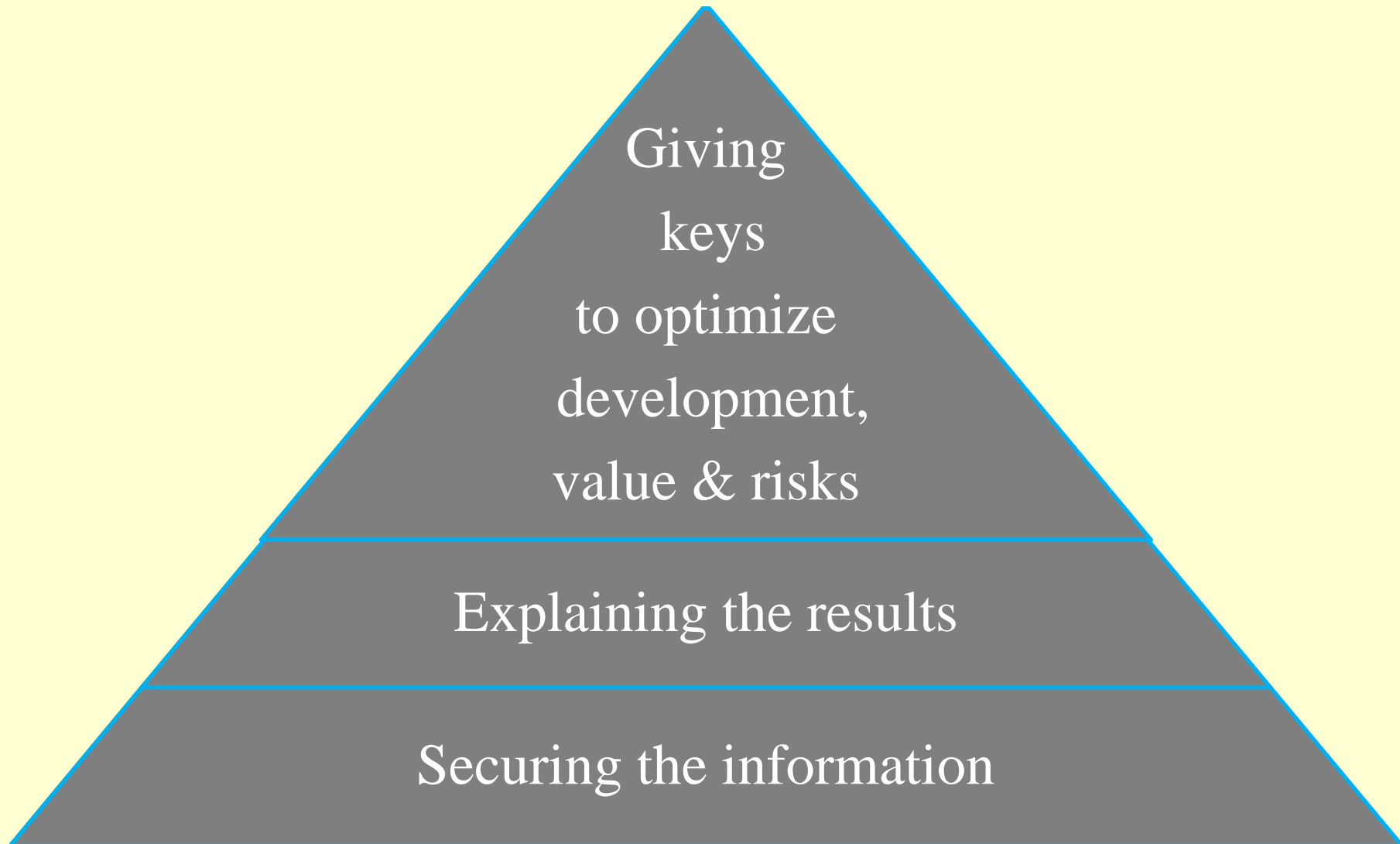
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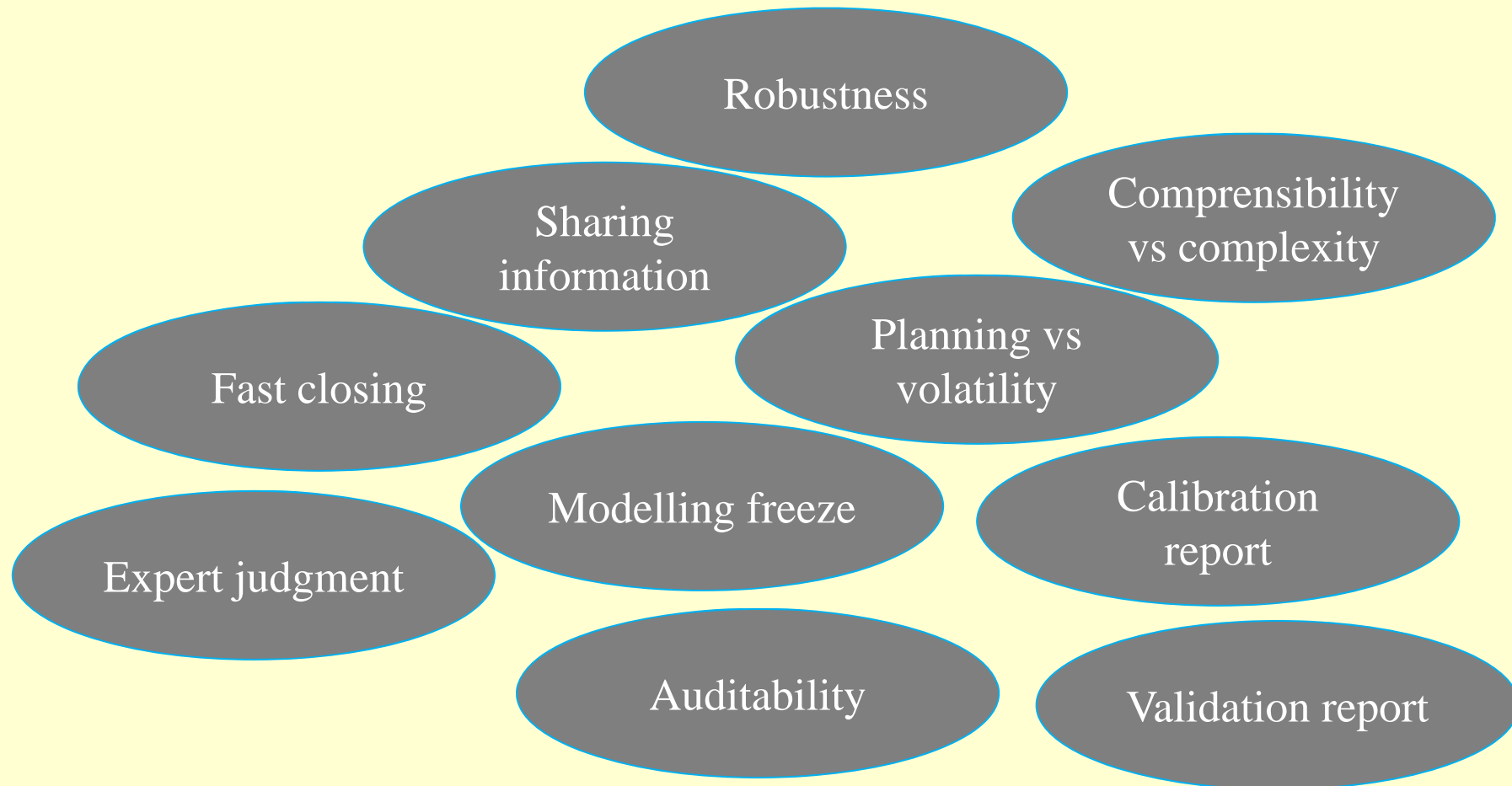
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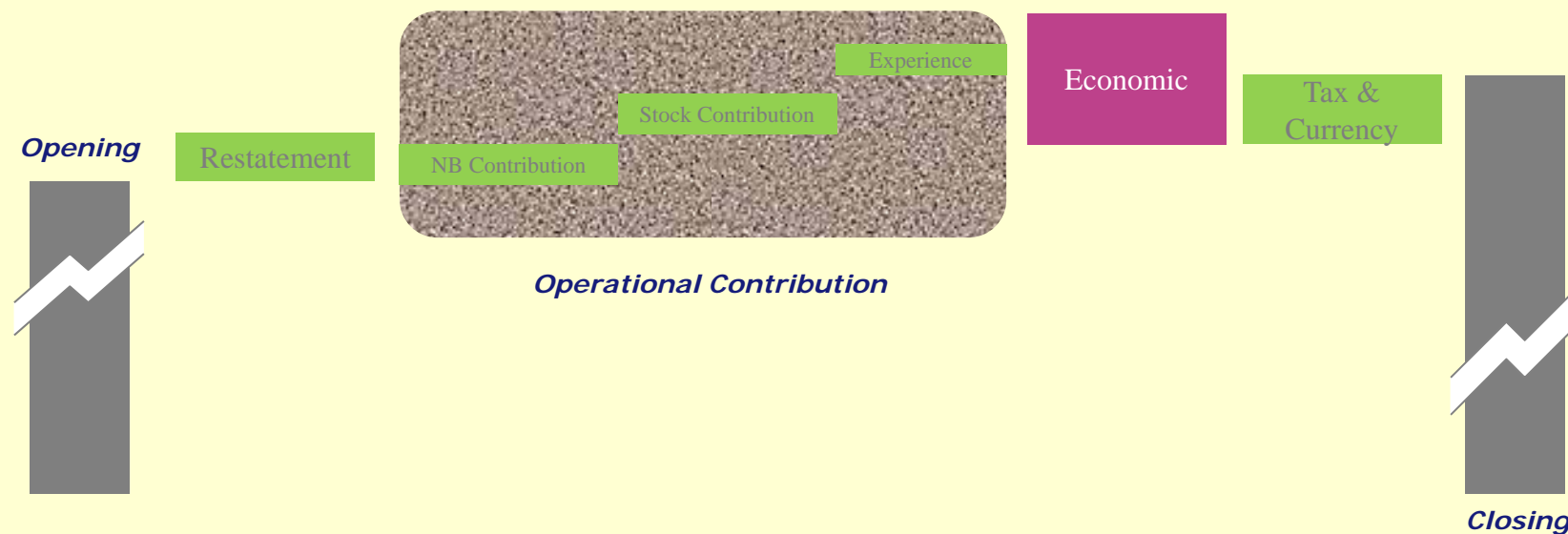
Level 1 : the actuarial level



Level 2 : the board level

Giving the main drivers

Simplifying the variation analysis into 4 components : restatement, operational, economic, tax & currency



Being pedagogue and avoiding actuarial jargon

Explaining through sensitivities & impact studies

Producing readable reports : 30 pages for the actuarial report

Level 3 : the business level

Through sensitivities & variation analysis, showing the main drivers of progression



Proposing new solutions in underwriting committees

Transforming the ALM & the reinsurance to free capital



Preventing risks through preventive measures vs capital loads



Adapting contracts and partnerships to the new framework

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Through sensitivities & variation analysis, showing the main drivers of progression



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Conclusion and Questions

References

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