



УНІВЕРСИТЕТ БАНКІВСЬКОЇ СПРАВИ

State Higher Educational Institution  
“Banking University” - Lviv Institute



# **Innovative Methods and Models for Risk-oriented Banks Management Systems**

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**Volodymyr Chaplyha**

**[v.chaplyha@gmail.com](mailto:v.chaplyha@gmail.com)**



# **AGENDA**

- **Ukraine's banking system transformation**
- **Improved “Four Lines of Defense” model for the organization of risk management system in banks and banking groups**
- **The Two-criteria innovation model of bank's approach selection to risk assessment**
- **Conclusions and recommendations**



# Ukraine's banking system transformation

- Ukraine's banking system has experienced the deepest crisis of 2014-2015 since the 2008 global crisis. Ukrainian economy lost 38% of Gross Domestic Product from the crisis
- Several negative factors were concidedenced in time and space, in particular, weak corporate governance of banks, the inefficiency of existing risk management systems (RMS), inefficiency of supervisory procedures by the regulator



# Ukraine's banking system transformation

- The National Bank of Ukraine (2018) approved the "Regulation on the Organization of Risk Management System in Banks of Ukraine and Banking Groups" (Regulation).

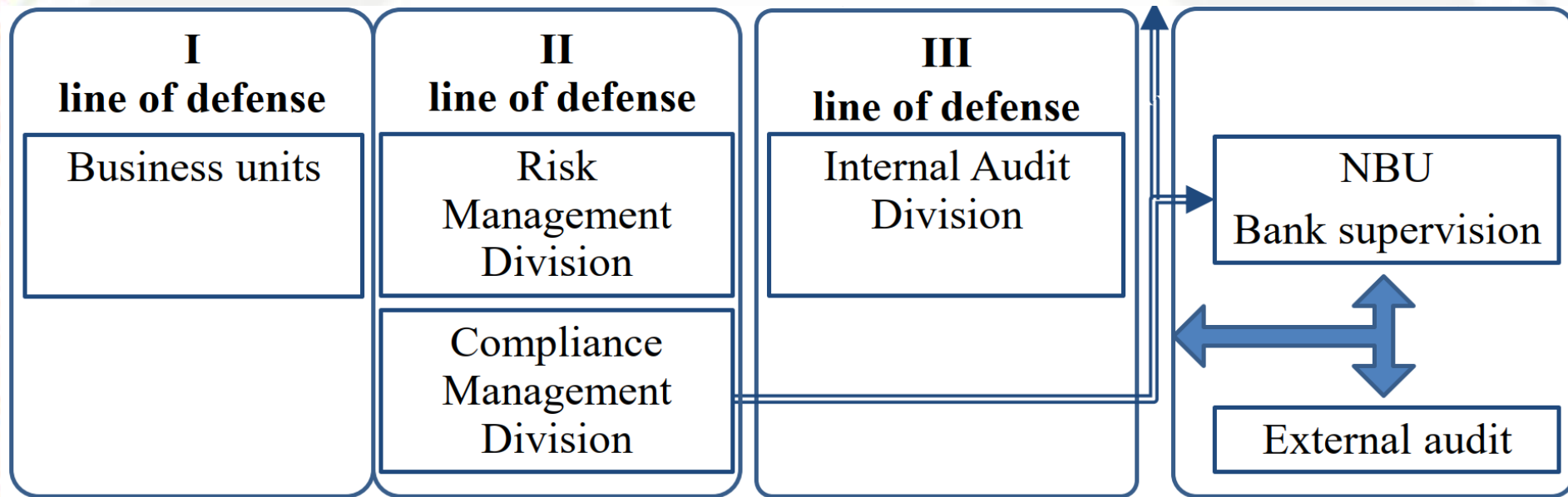


# Ukraine's banking system transformation

- The Regulation defines the subjects of RMS, its hierarchical structure and functions. In this case, the “Three Lines of Defense” (3LOD) model is used.
- Note that at present there is insufficient theoretical and practical evidence on how the “3LOD” model corresponds to corporate governance of banks and banking groups.



# “Three Lines of Defense” model for the organization of risk management system in banks and banking groups





# Ukraine's banking system transformation

- For banks, the introduction of the requirements of the Regulation and further operation of the RMS require an increase in the costs of  $W_{ST}$  for the implementation of methods, policies, instruments, processes, information systems and reporting on significant risks  $W_{RT1}$  the over time of  $T_1$ , and also the costs of  $W_{MT2}$  for the maintenance and systematic modernization of RMS over the period of  $T_2$ :

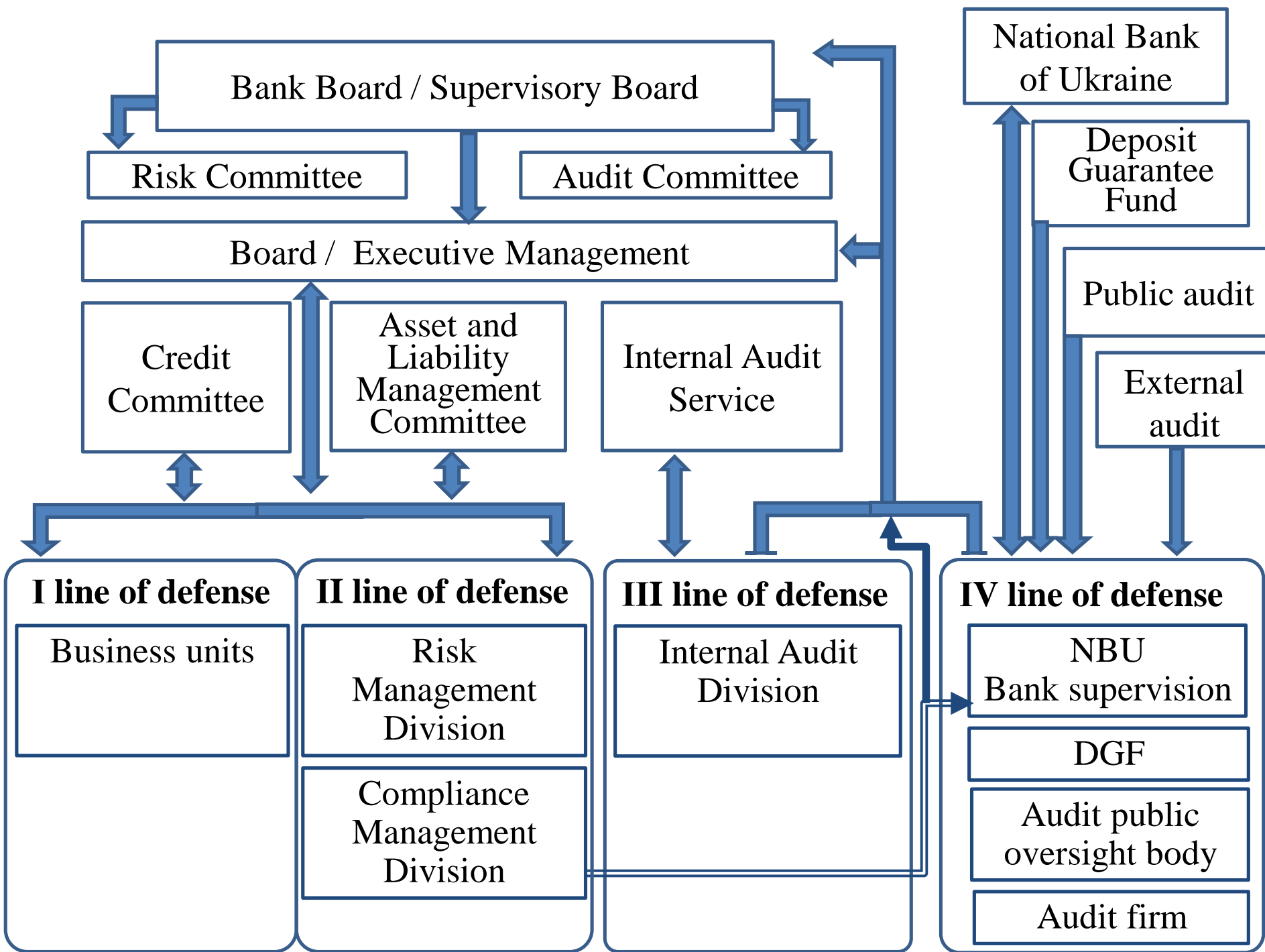
$$W_{ST} = W_{RT1} + W_{MT2}$$



# Improved “Four Lines of Defense” model for the organization of risk management system in banks and banking groups

- The banking sector of Ukraine consists of Banks and Banking groups, regulator - the National Bank of Ukraine, as well as External auditors, Deposit Guarantee Fund and the newly established Audit public oversight body, which are formally outside of the banking system. Each of them plays a special role on the respective "lines of defense" in risk management.



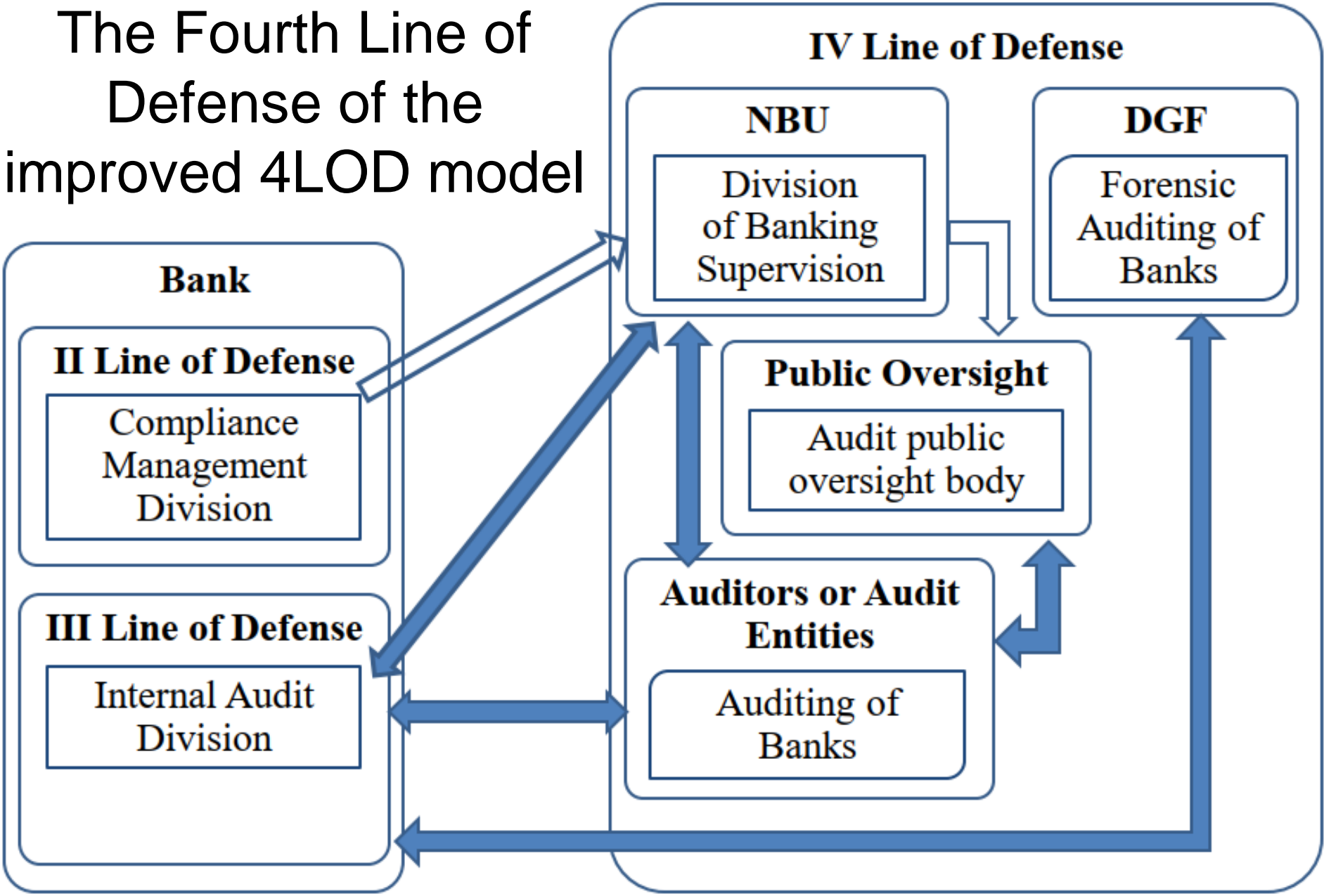




# Improved “Four Lines of Defense” model for the organization of risk management system in banks and banking groups

- Special attention should be paid to the regulation of information interaction processes, their level of maturity, as well as the quality of information support between banks/banking groups the National Bank of Ukraine, External auditors, Deposit Guarantee Fund and the Public oversight body.

# The Fourth Line of Defense of the improved 4LOD model



Interaction of subjects of the fourth line of defense with the bank's relevant structures, Source: own.



- If this interaction is not limited only to the formal side, but is carried out by the exchange of analytical information, knowledge and experience of a proactive approach to risk management and the solution of specific problems, then there is a synergetic effect of improving the efficiency of internal control in banks and, consequently, the stability, reliability and efficiency of both the individual bank and the banking system of Ukraine as a whole.



# The two-criteria innovation model of bank's approach selection to risk assessment

- The bank must choose an adequate risk assessment method in RMS to fulfill the National Bank of Ukraine standards for capital at risk. The bank's use of one or another risk assessment model defined by Basel standards or other approaches depends on the maturity of the general internal control system and, especially, the special risk management unit, as well as on the quality and availability of risk data.



- **Basic Indicator Approach (BIA)** - *at the first level of maturity processes and quality of data;*
- **Standardised Approach (TSA)** - *at the second level,*
- **Alternative Standardised Approach (ASA)** - *at the third level;*
- **Advanced Measurement Approaches (AMA)** - *on the fourth or fifth levels.*



Is proposed the implementation in bank of each approach to relate with the assessment of levels:

- of the Maturity process (*LMORM*),
- of the Quality of available (*LQDOR*).



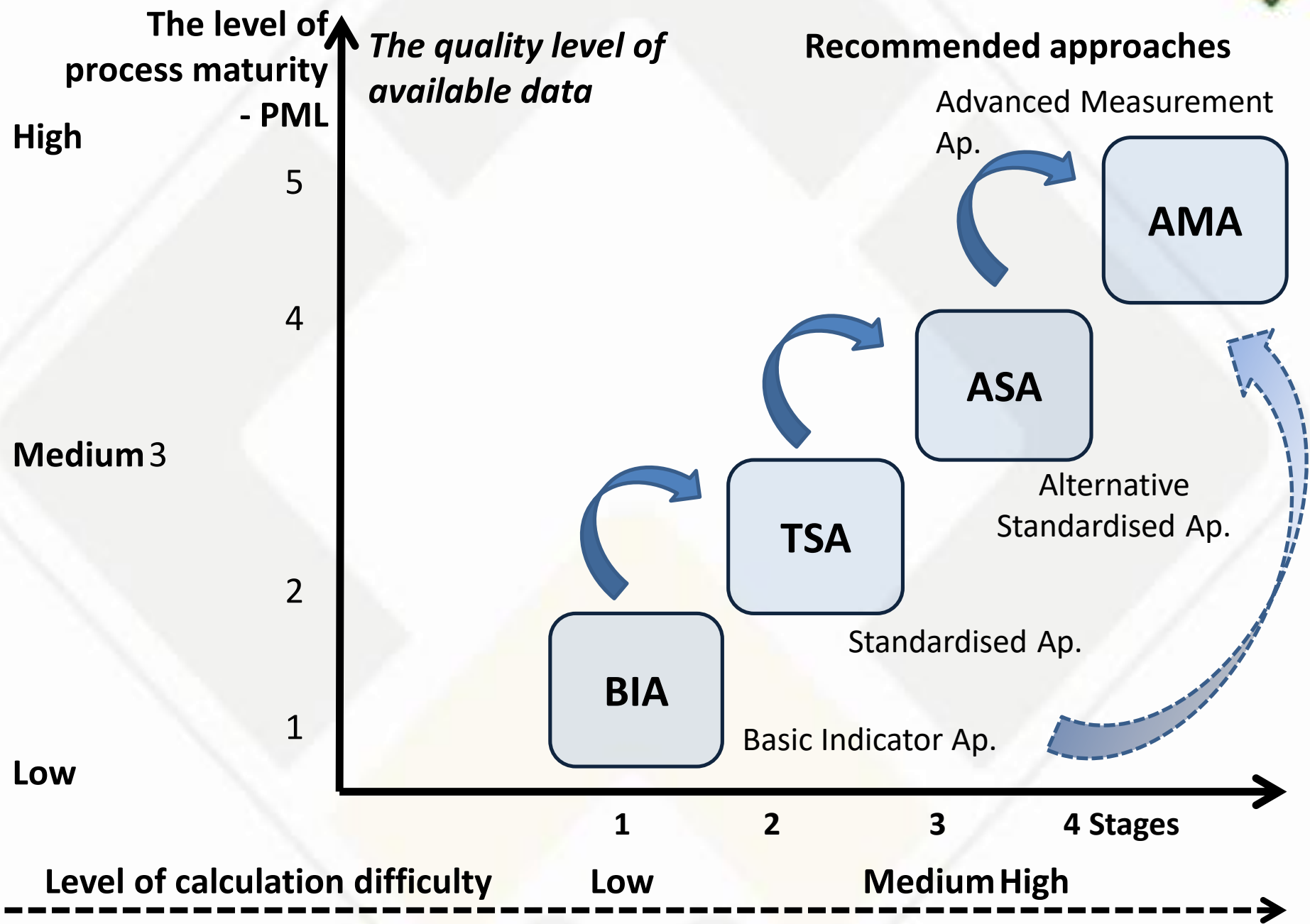
For each process, ISO/IEC 15504 defines a capability level on the following scale:

Level	Name	Our Symbol
5	Optimizing process	$LSORM_{i=5}$
4	Predictable process	$LSORM_{i=4}$
3	Established process	$LSORM_{i=3}$
2	Managed process	$LSORM_{i=2}$
1	Performed process	$LSORM_{i=1}$
0	Incomplete process	





The level of requirements to maturity of process and quality of available data



***Thank You for attention!*** 

**Volodymyr  
Chaplyha**

**Banking University,  
Lviv Institute.**

**v.chaplyha@gmail.com**



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