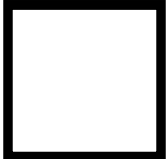




# How do you manage your OpRisk?

INSTITUTE FOR  
TRAINING AND  
CONSULTING  
IN BANKING





# THIS IS HOW WE WOULD MANAGE YOUR OPRISK

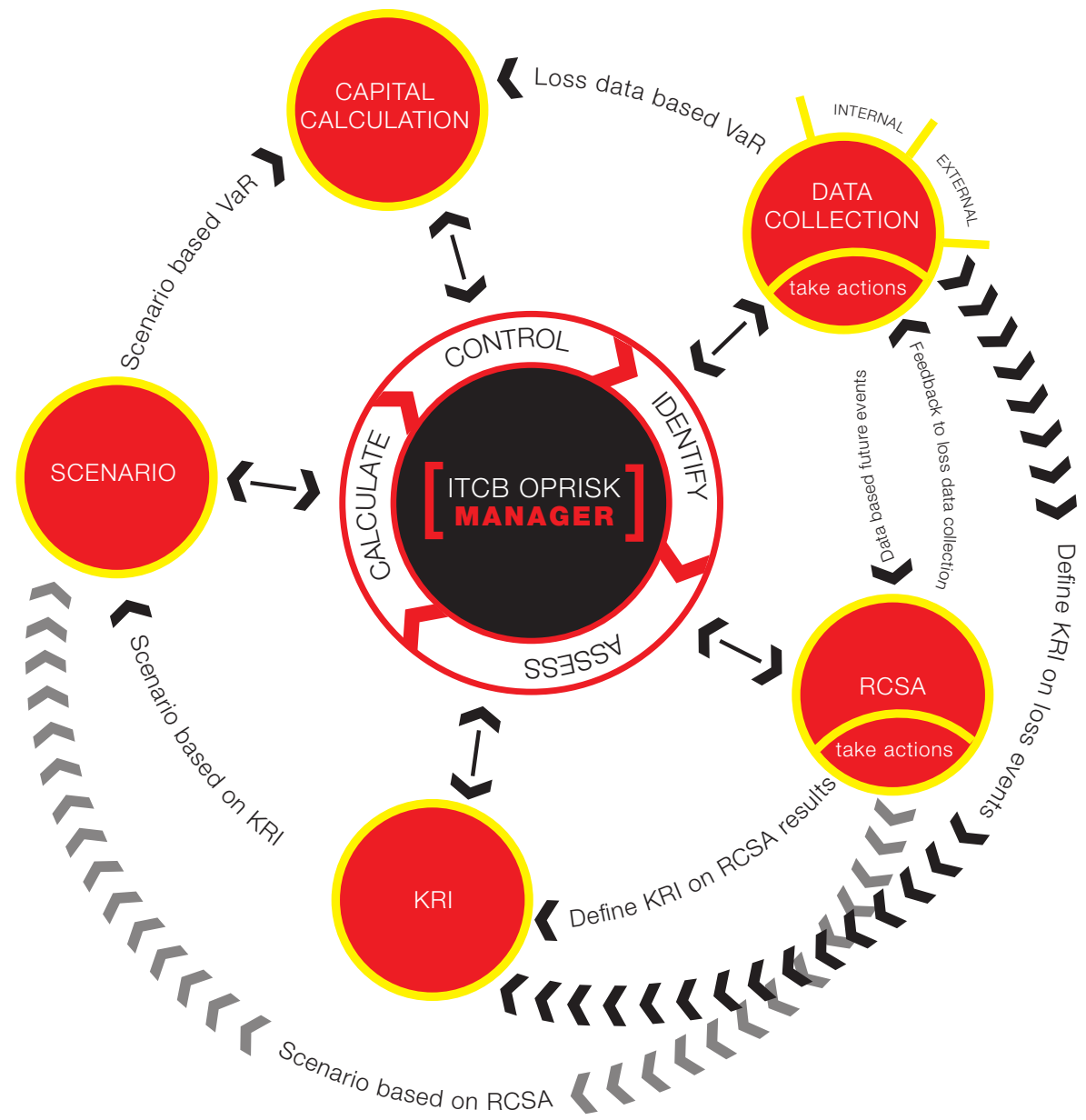
Our concept is to provide an integrated tool and know-how that empowers our customers to truly **manage operational risks** with ease.

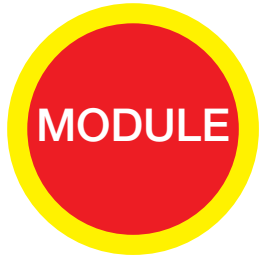
Our software enables the institution to handle its complete operational risk management requirements **in a single integrated tool**.

Our solution is a **web-based satellite system** of your existing core system and data warehouse that covers all operational risk management issues from the loss data collection to the successful prevention of these risks.

The system is not only a calculation tool that enables a precise calculation of operational risk capital requirement according to the **Basel II standards**, it also provides a solution to define and follow-up actions that may prevent recorded losses to happen again.

By using this tool, you will see your operational risk profile, and you can focus on critical areas where you can do the most against operational risk, **ensuring a higher profitability** for your institution.





# DATA COLLECTION

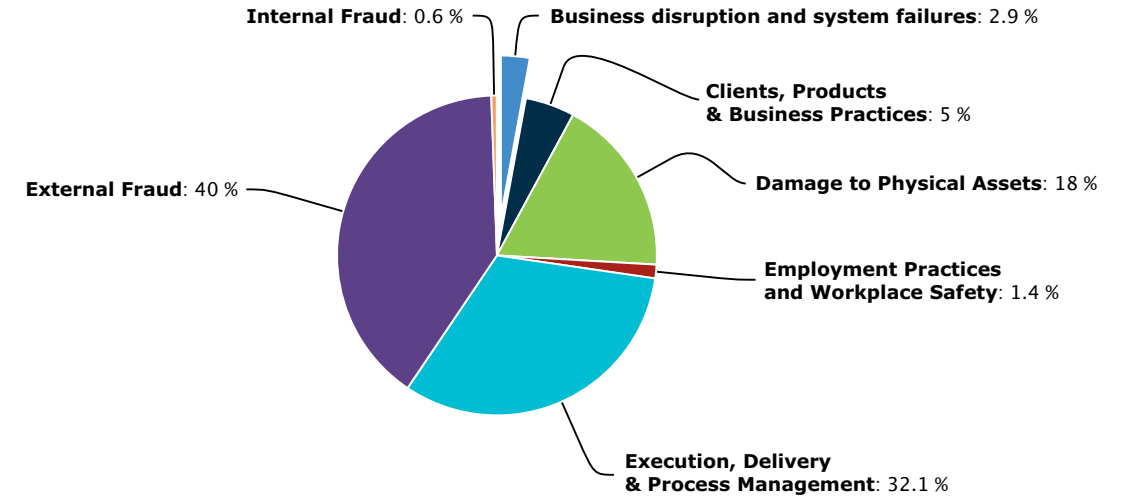
The data collection module is based on a **flexible database** that can be streamlined or be personalized to address the needs of our client.

This tool enables a decentralized way of data collection that can be used across multiple business lines, branches, subsidiaries, supporting **multi-language working environments**.

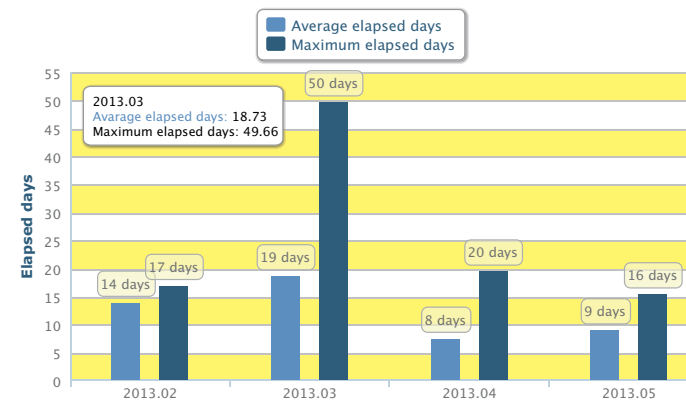
The module can be **highly parameterized**, and can handle not only the internal data collection but it can be interfaced to send or receive data from external sources, as e.g. an interbank operational risk database.

The module enables the users to view **predefined simple reports, lists and crosstables** and define their own user reports to assess most of the basic characteristics of the collected information.

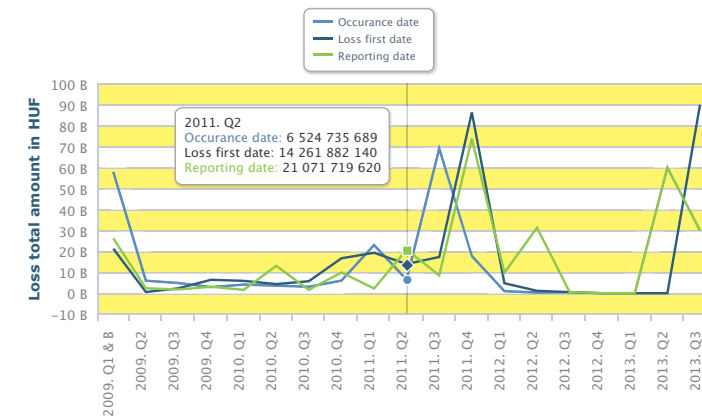
Number of events by Event-Type Category Level 1.

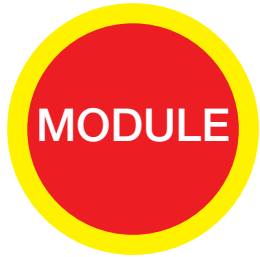


Elapsed time between Recognition and Reporting



Loss total amount by Date in HUF





# RISK AND CONTROL SELF-ASSESSMENT

Controlled by the workflow incorporated in the RCSA module the participants of the business processes **identify and assess the risks and controls** of the organization.

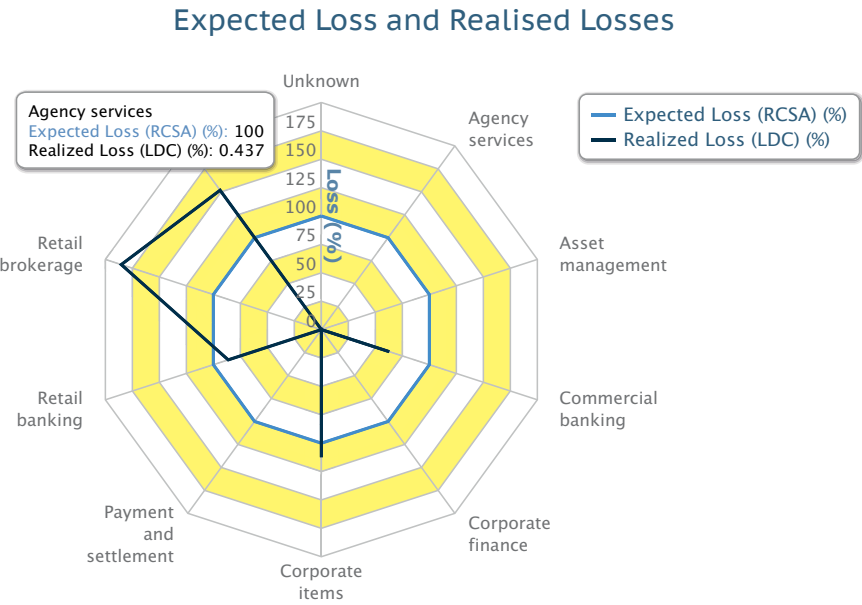
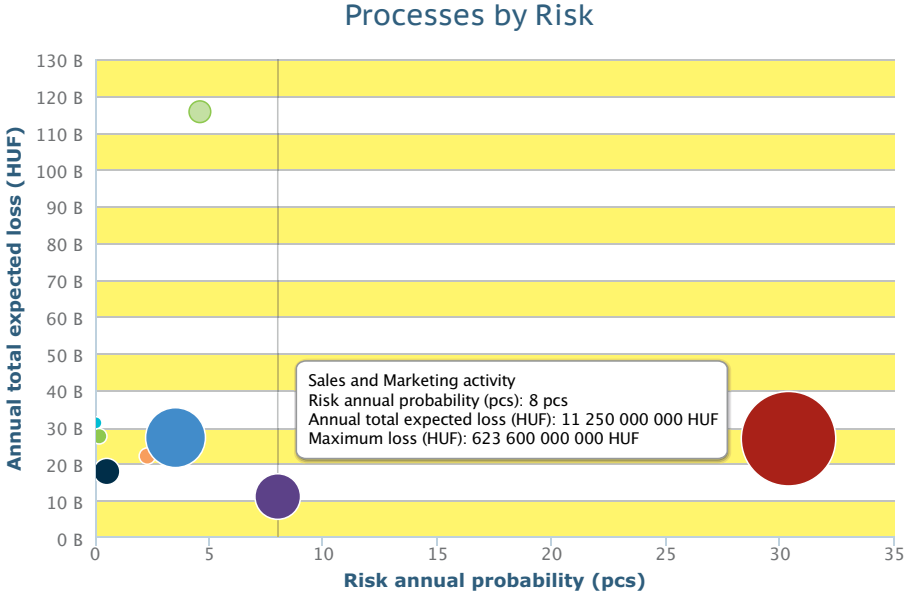
They can enter risks and suggestions into the **embedded survey** of the software where they can periodically assess the performance and structure of the controls too.

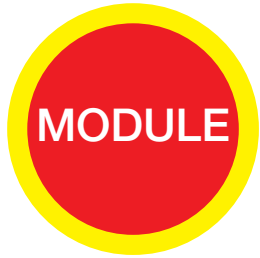
The solution can **relieve the risk management** by summarizing, synthesizing the results of the survey filled in by the process owners on the level of the business processes or on the level of business lines.

Internal Auditors and other control departments can request risk assessments and can suggest actions to mitigate significant risks and **improve control effectiveness** which enhances the adequate synergy between the control function.

Using the same system to manage and mitigate the risks is leading to **less overhead**, time and cost efficiencies.

Lastly, **reports on risk and control profile**, for example risk maps of processes or the whole bank can also be generated in the ITCB OpRisk Manager solution for executives and managers.





# KEY RISK INDICATOR

Key risk indicator module is an **effective monitoring tool** for the collection, assessment and report of the observed or calculated indicators of risk used to show the level of a risk that is considered important in the organization.

The wide accessibility of the tool makes possible to use business knowledge to **identify indicators** that have significant link to specific risk.

The module enables the **separate collection and storage** of risk, control and performance indicators which can assign to a given organizational unit or business process.

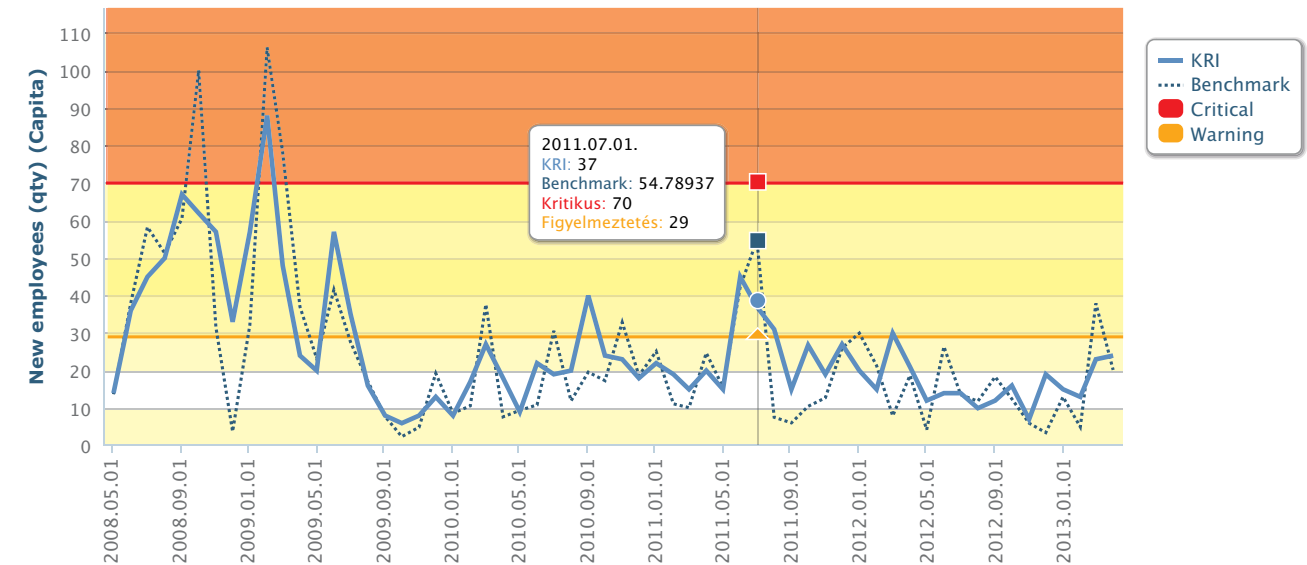
This multiplies and makes very **flexible the way of reporting** and statistical analysing of the KRIs.

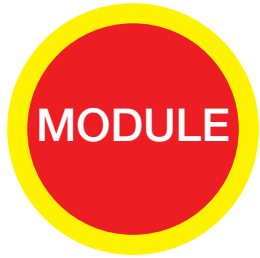
The **warning light system** of the module serves to ensure that actions are taken if a threshold of the KRI is exceeded. An email sending function is available to remind users of their responsibilities in carrying out predefined actions.

For management information purposes the KRI module **aggregates or scales the values** on the level or by the dimension requested by the user.

KRI definition short description	Apr 2013	Mar 2013	Feb 2013	Jan 2013	Dec 2012	Nov 2012	Oct 2012	Sep 2012	Aug 2012	Jul 2012	Jun 2012
HR aggregált KRI	• 1.4	• 1.4	▲ 1.4	▲ 1.2	• 1	• 1	• 1	▼ 1	▲ 4.2	• 1.2	▼ 1.2
Új belépők száma (sztenderdizált) (25.00%)	• 1	• 1	• 1	• 1	• 1	• 1	• 1	• 1	• 1	• 1	• 1
Fluktuációs ráta (sztenderdizált) (40.00%)	• 1	• 1	• 1	• 1	• 1	• 1	• 1	▼ 1	▲ 9	• 1	▼ 1
Betöltetlen álláshelyek% Bank (sztenderdizált) (10.00%)	• 1	• 1	▼ 1	▲ 3	• 1	• 1	• 1	• 1	• 1	• 3	▲ 3
Betöltetlen álláshelyek % Retail (sztenderdizált) (20.00%)	• 3	• 3	▲ 3	• 1	• 1	• 1	• 1	• 1	• 1	• 1	• 1
Betöltetlen álláshelyek száma % Other (sztenderdizált) (5.00%)	• 1	• 1	• 1	• 1	• 1	• 1	• 1	• 1	• 1	• 1	• 1

New employees (qty) – KRI00000001





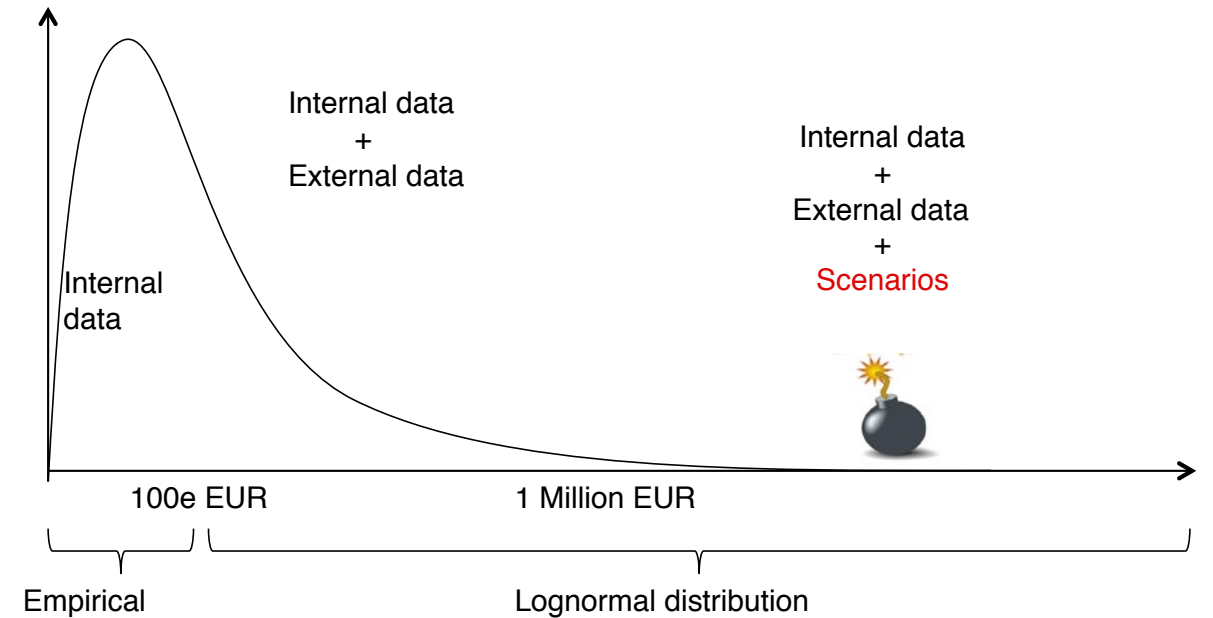
# SCENARIO ANALYSIS

The purpose of scenario analysis is to ensure that the institution is able to capture extreme events both in terms of sector-specific and institution-specific factors.

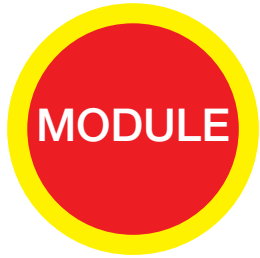
The use of the module supports meeting Basel II guidelines requiring that assumptions underlying the scenario analysis are well documented and the process is highly repeatable and consistently prepared.

The embedded survey of the software helps the effective involvement of internal experts and the adequate coverage of all material operational risk.

Controllable and flexible definable parameter valuation assures the integration of the results into the capital modelling framework according to the institute's request.



Event-type level 1.	Business line	Short description of the scenario	Year	Scenario status	Expected frequency number	Expected average loss number	Maximum loss value	CCY	Scenario ID
Business disruption and system failures	Corporate items	GIRO failure	2011	New	0.50	27,100,000,000	1,055,400,000,000	HUF	SCEN00000004
Clients, Products & Business Practices	Corporate items	GVH (Competition law) penalty based on information cartels	2012	New	0.10	69,600,000,000	751,900,000,000	HUF	SCEN00000003
Clients, Products & Business Practices	Corporate items	Bank faces fines from the HFSA because it had failed to stop the laundering of money	2011	New	0.10	40,200,000,000	507,000,000,000	HUF	SCEN00000011
Damage to Physical Assets	Corporate items	Flood and disaster	2011	New	0.10	87,500,000,000	1,590,100,000,000	HUF	SCEN00000005



# CAPITAL CALCULATION

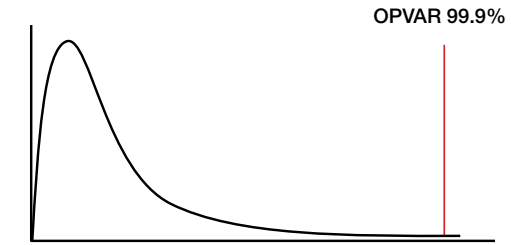
The capital calculation module provides an integrated tool for **calculating your capital requirement** based on the internal or external data collected in the data collection module and the scenarios defines in the scenario module.

With a **massive selection of methodologies**, our customers can choose from a variety of advanced methodologies to calculate their compound loss distribution and calculate the value at risk limit at a given percentile.

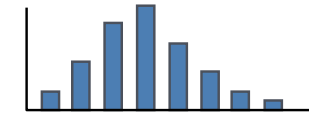
Our tool integrates our **knowledge from AMA modelling** and experience in regulatory approvals.

Capital can be calculated and calculation results can be stored along its main risk drivers in a consolidated way and also **separately for subsidiaries** or business lines.

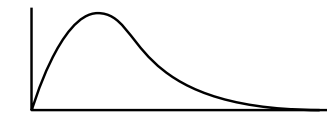
Our customers may choose from **different allocation methodologies** that also provide a way of allocating group-level capital to subsidiaries and business lines.



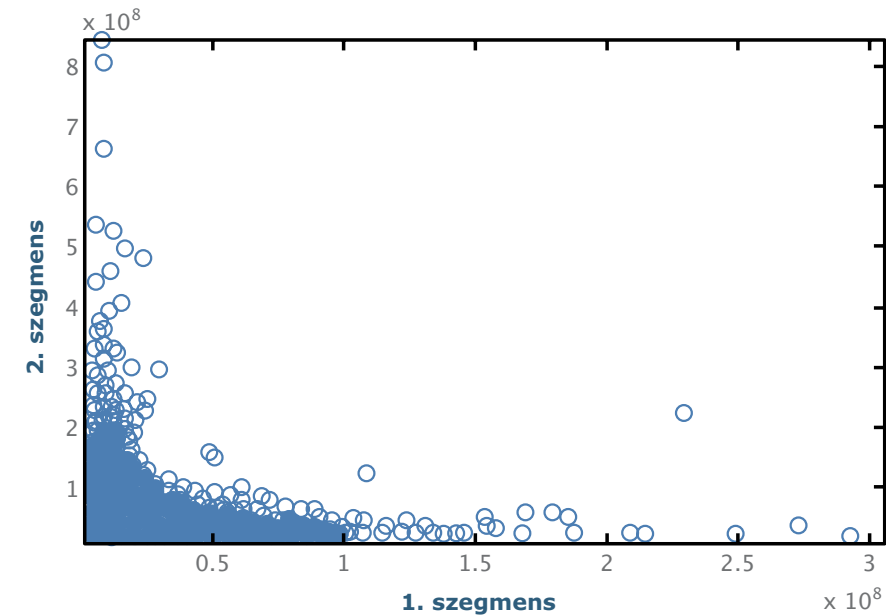
MONTE CARLO SIMULATION



FREQUENCY



SEVERITY





## ABOUT ITCB

ITCB, the first educational **institution for bankers** in Central and Eastern Europe was established in 1988.

Since then more than 50.000 students participated in training courses offered by ITCB

We are involved in special, professional banking courses, accredited Hungarian and **international trainings and postgraduate educational programs.**

In line with its teaching activity ITCB is the **leading banking consultant** in Hungary providing special risk management and business solutions to its clients.

[www.itcb.hu](http://www.itcb.hu)

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# ABOUT ITCB OPRISK

in cooperation with FIRIM AG\*

We deliver you an **integrated operational risk management software** and provide consultancy for your introduction of operational risk advanced measurement approach (AMA).

With several successful regulatory approval of AMA models delivered to our clients, ITCB is a leading operational risk consultant company active **in the CEE and MEA region.**

Our service will help you achieve your goals in operational risk management, providing you a **tool and know-how** that is integrated into your everyday work and helps you lower your operational risk exposure.

With our tool you can identify, measure and take actions against operational risk, enabling a **quick ROI** for your operational risk investment.

\* FIRIM AG is a subsidiary of ITCB registered in Switzerland providing consultancy services in financial risk management.

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