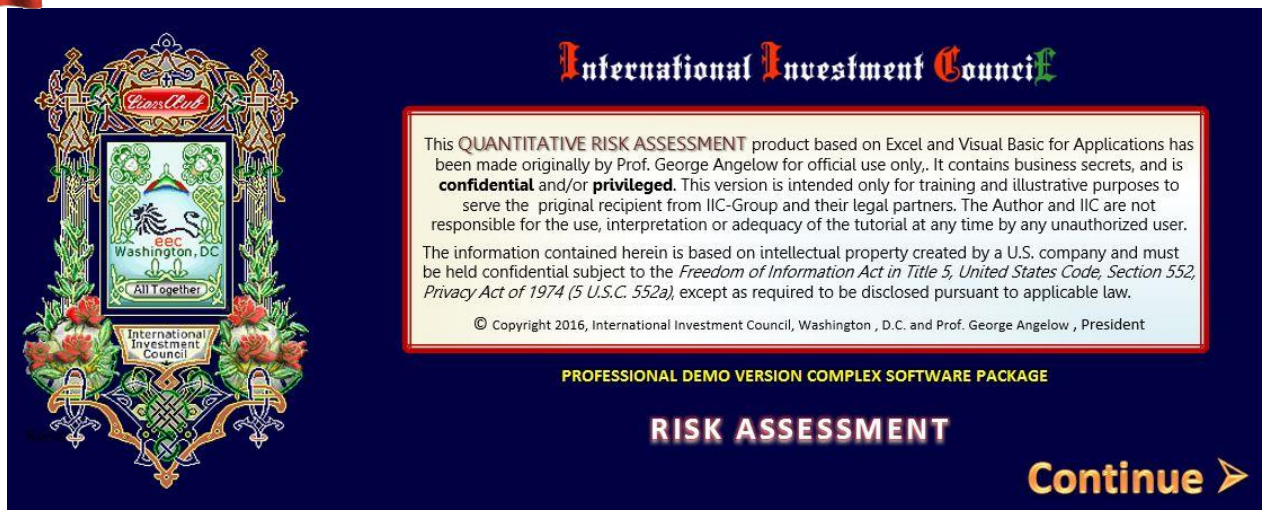


SUMMARY
8R-PROGRAM

RISK ASSESSMENT AND MANAGEMENT

8R-Program as a part of **EIGHTER PROGRAM** (open-source computer program) is a **7**-factor product for financial assessment and management of **1** factor—operational risk[1], i.e. the corporate manager's behavior—individual or board—when takes both, capital investment and operational decisions, more particular in project finance business venture. It is designed for:

(1) audit of capital investment projects, *and*

(2) management over the whole tenor of the debt.

Its development is based on Windows application Excel for maximum ease of use by anybody.

(1) ASSESSMENT

For accuracy and completeness of the result, the Risk Assessment (**RA**) should be carried out by three groups independent groups assessors – Group **A** "INSIDE EXPERTISE", Group **B** "EXTERNAL ASSESSORS", and Group **C** "INDEPENDENT EVALUATION", made by specialized professional experts – depending on the results of the of the upper group(s) for the specific:

(i) High level of the risk, *and*

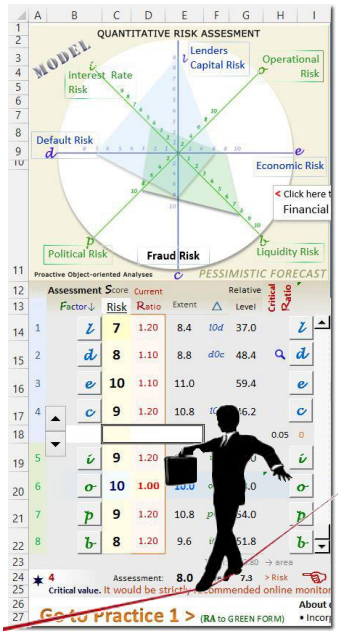
(ii) If the assessments of the first two groups, "A" and "B" differ significantly. The quantitative financial **RA** is computed based on approved **EIGHTER**[*] risk factors—each one directly dependent on the others.

After the usual training, the first evaluation is done by the Project Company, introduced by Button Complete into the Matrix #1 002; the next one - by our expert – in Matrix #2 009. It is, in most cases — lower that the first one. It follows the second phase of the training and new assessments. With relatively large differences in subsequent estimates, the third Group **C** is included.[†]

[*] (cardinal number that is the sum of **7** financial and **1** operational)

[†] More information for the people who are interested in will be found in the Attachment below ↓below.

If the specialized expertise confirms high level of risk, but operational management of the project largely depends on the personal quality of the operational decision maker and in particular the manifestation of these qualities in not extreme conditions of making management decisions that could lead (often successfully) to risk mitigation (e.g. by untimely payment of loan installments). This is subject to application of biometric identification with assessment of PERSONALITY TRAITS (**PT**) evaluated in eight separate sub-matrix(s), group "D", of the program. To change the graphical presentation of this case just a click on the chart (see it below).



The structure of **8R-Program** can be determined as a unique identifier of the treated parameters for this type of programming (see more about the motivation **Internalism** and **externalism**)[2].

- The visualization is for the purpose of easier perception of the abstract algorithm – the graphical representation, matrix interpretation, analogical coloring of the similar data, etc.
- Mathematical logic (Metalogic) is: quantitative assessment from 1 to 10 of any risk factor and factor-impact ratio over it on a particular project in a unique business environment from 0.5 to 1.2.

The multiplication of both assessments presents the specific size of the factor, and the average value of the sum of them - the ultimate risk assessment from 1 to 10. In addition, it was never detected complete mutual independence of individual risk factors. On the contrary, the most accurate presentation of the interdependencies of the separate factors is computed on algebraic way from the geometry of graphical representation. It is used to determine the relative levels of the two groups (l,d,e,c) and (i,o,p,b). They are used as relative levels of both groups, presented in both Cartesian polar coordinate systems in the blue and green with 45° rotated around its center from one another as well as in the operational matrix below them. Calculation of the total area of each of the two quadrangle with a summation of the areas of all constituting triangles and presented with average value also in decimal dimension achieves synergistic effect of added qualitative evaluation to quantitative one. It refers to both types assessment – **RA** and **PT**. So when any of the treated averages exceeds the set critical value, on the corresponding location in the matrix displays or (as per the case).

Essential, additional, contribution to the practice of using **8R-Program** is its relationship with a second product – specific financial model a part of which is the business plan – which assessment is crucial for investment project finance. When working with the program online, at closing the program file or shutdown the computer, both products are automatically sent to the server of the parent company in Boston. There the data is compared with the software model and if there are technical errors in their next activation (download) the wrong cells are marked accordingly. This avoids the need of direct operation of the user with very complex software that was created for highly qualified IT-specialists / programmers. But as in the server periodically enter such data for

8 various industry fields, the parameters of **1** received project compare with averages of the like of the same field. They are divided into **8** areas – **7** engineering and **1** in biometric identification. This way yields an approximate indicative comparative statistical confidence. It can direct the manager to appropriate operational management decisions.

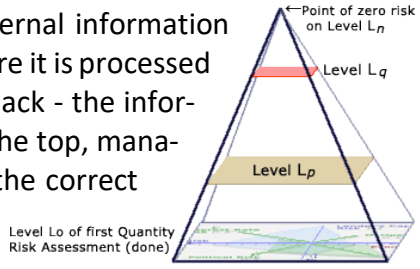
(2) MANAGEMENT

8R-Program software is based on principles and generic guidelines on ISO/TR 31004:2013 managing risk effectively by implementing ISO 31000:2009. It can be applied to any type of risk and isn't specific to any industry or sector if you provide advice and support services on the management of risk. Organizations using the **8R-Program** can compare their risk management practices with an internationally recognized benchmark, providing sound principles for effective management and corporate governance.

The system allows:

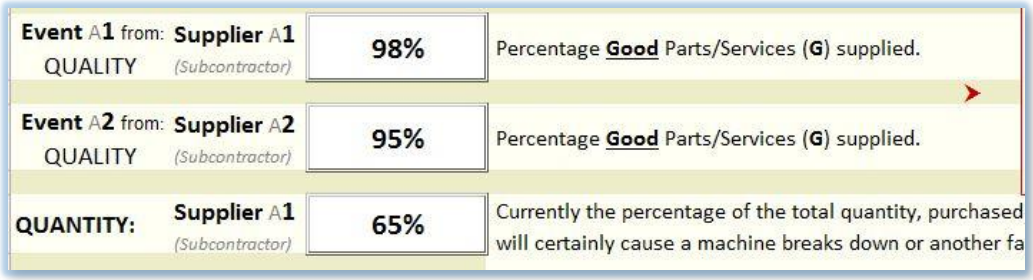
(i) **Feedback** of the assessment results to the management. The consecutive assessments by the internal expert report are graphical presented with forecasting option. The following operational decisions lead to reassessment of some of the studied factors most often with large impact on operational risk and behavior of the managing body, particularly if it is found fraud risk regardless of what level managing staff with assessment of the fraud risk factor was. As far as an assessment is made by an assessor in several minutes, this allows his periodical operation with the program, respectively the graphic interpretation facilitates the monitoring of its trend, forecasting of selected factors and their operating control.

(ii) **Hierarchical structure** of handling of the primary external information from the base level of the pyramid to the top of it, where it is processed according to the characteristics of the business, and back - the information of the managing solutions comes down from the top, managerial level, to the performers. This structure allows the correct understanding and treatment of logical design solutions as well as in the pre-design phase, and in the process of business management.



(iii) **Online cash-flow control** is one of the priority system for project management over the whole tenor of the debt. Operational accounting data is sent automatically (or manually password protected during a certain period if the used accounting program is not compatible with **8R-P**) to the server, where they are compared with the project's budget. The graphics on both cash flows are presented in the same coordinate system. This way the manager, lender and insurer which have privileged access, as well as the external control body of the company-developer of the project may control the operational financial performance of the project implementation and timely to implement appropriate management decisions.

(iv) **Sensitivity analysis** of cash inflow - obligatory part of the business plan and cash flow resulted from the impact of various risk factors and operational management. It is programmed to define and control the revenue based on Bayes' Theorem. This is a next higher level in the hierarchical structure of the system for risk assessment and financial model to which it is applied. There are treated two or more prior unpredictable events of interest concerning with the revenue part of the project, which are defined as bipolar corrective of the risk.



They are algorithmized for digital identification, respectively as *predictable* and computed on the basis of real data (e.g. sales, which form the incoming cash flow). At the stage of designing the financial data they automatically adjust the budget in the implementation of the required pessimistic forecast, and then - as signals for risk management in its part of the factors, organically related to the reduction or eradication of the impact of these events.

(v) **Formal system**, applied in the formulation and management of the risk is last but not least quality of the programming software. This is a formal language composed and expressed through symbols such as numbers and formulas used in non-formal verbal description of the risk for the application of the financial rules and their algebraic axioms. Through an adequate procedure they are applied in assessment and management of an engineering project. In other words, it is creating isomorphism reflecting actual risky act or decision of such in the minds of business decision-makers with his digital interpretation of the software. Even more described, whether the linguistic description of the cause and the solution for treating it corresponds and is associated with the formal description of mathematical risk model, including its graphical presentation (or its description by the assessor to the operator). Or we have to wait every time the event to happen with bad result and then to take measures to "eliminate" him, as often happens in the practice. Unique event of failure (even nonsense is the exact definition) were identified from the viewpoint of a bystander and common practice for participants necessitated formalization of this phenomenon in the mathematical model of the program. Creation and implementation of this system with understanding (and not with a simulated respectively behavior) also becomes possible only and solely through the operations of at least two neighboring hierarchical levels of the pyramid model of risk assessment.

In conclusion, the depression in 1930, stagnation in 1970 and the incredible absurdity of the new "century of progress", the financial crisis in 2008, began with AAA^{+} valuation of Lehman Brothers and the collapse the next day with bankruptcy clearly shows increase of the inadequacy of the long-time used software for financial risk assessment. Regardless of already started subprime mortgage crisis, accidentally, due to ignorance (or coincidentally).This risk factor cannot be computed by this **8R-CI Program**, but for daily practice in normal business – still (at the date of this Summary) – no better, practical and applicable means.

DEMO-version and the whole information about the program you can find in our Website through the submenu:

http://www.iic-london.co.uk/ HOME_Risk.HTML

References.

An interesting for general culture extension of a user's point of view on the choice of the concept of the program algorithm: in the multiplicity risk and other objective factors and the possible management decisions, product of mind. Without historically determined and confirmed concentration of the spirit, it is not possible to be selected the most rational base model for optimal management of diversity and it to be for the benefit of all participants. This is a principle disadvantage of many such computer programs. It had to be chosen new concept involving abstract principles of meta-logic (mathematics logic) with the possibility of algorithmic interpretation.

About the conceptual choice— everybody asked can assess the risk of something (or more things) according to his intelligence, knowledge and the information submitted through the question; some could comment and its specific impact on the environment / system. But how to get measurable general, the combination of both? And their mutual influence? Or to wait the things to happen, then we will easy tell where and with whom the blame is. Such an evaluation and appropriate decision without an accurate description of the thought and mind with the help of not changing immanent nature of the man and his interpretation in numbers and formal addictions is dimply a nonsense, and the results are never late – they are coming just in time. This is the philosophy of survival in risky situations, i.e. in the everyday life of one who works.

1* The Star of Ishtar has eight rays. Each represent a distinctive type of vital energy from the Multiverse. The concept of the *Seven Mystical Cosmic Rays* has existed since at least 650 BCE. Greek, Hindu, Vedic, Egyptian, Chinese, Persian, and Babylonian cultures all had versions of it. The rays are the major types of energy substance, bearer of information. Those are the Seven Rays, but what about the 0/8th?

2† An idea of the philosophy of motivation "why this ..." and "what if ..." in the choice of the model:

In the Bhagavad-gïtä Lord Kṛṣṇa says:
"**Earth**, **Water**, **Fire**, **Air**, **Ether**, **Mind**, **Intelligence** and false **Ego** are My 8 separated material energies.
Chaospheres have 8 points – to discuss the order 90 degrees and chaos 45 degrees. This is the traditional Star of Ishtar. In the modern terminology it's composed of two intertwined Cartesian polar coordinate systems. This is a symbol of regeneration—for the natural universe, respectively in the personal mind—interweaving order and disorder, yin and yang, to create an ultimately harmonious and balanced design.

End