If You Think About Optimal Decisions and the Optimization

"For since the fabric of the universe is most perfect and the work of a most wise Creator, nothing at all takes place in the universe in which some rule of maximum or minimum does not appear"

Leonard Euler

Five Questions about an Optimal Decision

What is an optimal decision?

An optimal decision is a decision that can be called the best out of all possible decisions.

Why do I need an optimal decision?

Decision-making, irrespective of the area where it takes place, always encounters significant limitations. As a consequence, many approved decisions prove by far not to be the best. If we look for the best, we are looking for the optimal.

How can an optimal decision be found?

An optimal decision can be guessed at or found by testing all possible options. But this would take up too much time, and therefore it is unlikely to be done in real life. To search for an optimal decision, there are mathematical algorithms which already exist and are put into practice, or being developed.

What difficulties can arise when searching for an optimal decision?

If the problem is complex enough, the searching process for an optimal decision can be lengthy, even when using modern algorithms.

What is IOSO?

*The best-known algorithms for searching for an optimal decision become very slow as the real complexity of the problem grows. Originally designed for **solving complex and laborious problems quickly**, the IOSO technology was developed around 20 years ago and is successfully applied in searching for optimal decisions.*

Five Myths about Optimisation

Optimisation is unnecessary.

This is the most wide-spread misunderstanding at the present time. In today's market conditions, the level of complexity of modern technical systems and models is so high that any below-optimal decision leads to the uneconomical use of material, intellectual and other resources, which exerts a qualitative and quantitative effect on the speed at which the company develops in the market and on how it stands up to competitors.

Optimisation can only be effected by a professional in the field.

*Indeed, most optimisation algorithms require knowledge and experience in their use. The user must be able to select the required algorithm out of many available, and to adjust its settings correctly in order to succeed in solving the problem. **However, it is different matter with the IOSO technology.** In order to use it, you only need be a professional in your own field. The IOSO technology was designed on the basis of self-adjusting algorithms that work automatically. You can safely rely on it, as our user's experience has shown.*

Using optimisation is very expensive and requires a lot of time.

Solving an optimisation problem requires a special approach from the outset. With competent planning, however, the search for a solution with the use of an optimisation technology proves not only more profitable in terms of output, but also in terms of time and money spent. Searching for a solution without using an optimisation technology could be compared to looking for a way out of a complicated location without the help of a map and compass.

We solve optimisation problems on our own

If you are not a professional in mathematical optimisation, you risk creating yourself a happy illusion which will not solve your problems. While no special knowledge is required to use the IOSO technology, your experience surrounding optimisation theory must meet the highest standards to enable you to write a software product like this.

We think that optimisation is impossible in the area we operate in.

IOSO technology is based on universal mathematical algorithms that can easily be applied to solving optimisation problems in various fields of human activity. If a phenomenon you are interested in can with a certain degree of approximation be represented by a mathematical model (and virtually all phenomena can), there are no theoretical obstacles to using the IOSO optimisation technology. If you would like to try it out, we are in a position to provide you with a trial copy of the software and can even help you identify and solve an optimisation problem.

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