SYSTEMIC COMPETENCE
and
A Weapon of Mass Creation

Purely technical point of view without taking into account
political monetary-economic and legislative blockades

Concept and drafting:	Ing. Petr Taubinger
Notes:	Michal Mauser
Translation:	Tomáš Řeháček
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Used acronyms:

NL/RBE   -   Natural Law / Resource Based Economy

1.   INTRODUCTION

In this short study, you will find a proposal for the concept of *SYSTEMIC COMPETENCE* for simple and effective social governance at all levels (from individual to community, municipality, region, state, continent to the whole Earth). This concept could replace the current traditional politics with a simple public vote on professionally elaborated projects entering into „competition". Only the technical aspect is being considered. This means that the problem of the entrenched ideology of contemporary market capitalism and elites is not addressed here. It is a concept of a simple, yet not unknown, principle by which we can effectively solve any social problem that plagues us if a sufficient number of people unite behind such an idea and promote it in the current political environment.

2.   PRINCIPLES OF SYSTEMIC COMPETENCE

2.1 The principle of simplicity
The simpler the scheme, the clearer it is for the public and the easier it is to support its implementation.

2.2 Fractal architecture
The same principle or algorithm of operation applies regardless of scale - that is, for an individual, community, municipality, region, state, continent, the entire planet. It is about universality.

2.3 Maximum transparency of the whole process
The whole process is controlled by the public in real time using information technology.

2.4 Possible anti-corruption safeguards
In the current socio-economic system based on money and competition, it is of course possible, if needed, to implement anti-corruption safeguards because of the various interest groups, which are the result of the principle of market competition. Examples are possible electronic

attacks and hacks, media manipulation, traditional corruption and the like. However, for reasons that are not part of this concept, this point may not be as much of a problem as it might seem at the first glance.

3.   MECHANISM CONCEPT

3.1 „Competition" entry

Logically, those who submit a project with a sufficiently clear presentation of the solution to the public, advance into the „competition" of *problem solvers*. For example, a project can be clearly described in detail in a PDF document containing text, graphics, calculations, and the like, while being also presented as a video using public channels. In the case of larger projects that have a direct impact on the entire society, can the solvers also defend their projects in front of an expert commission on live TV.

The first reason for preparing project documentation is the fact that only those who have studied the problem in sufficient detail and presented their findings and solutions in a suitable form to the public can be consideredas *competent*. Consequently, this demonstrates that (s)he is interested in participating in this solution, voluntarily accepts responsibility for the completion within a specified timeframe and is also aware of the risks and all the consequences in case of failure.

The second reason for preparing project documentation is maximum comprehensibility as a necessary prerequisite for better understanding by the general public and more effective subsequent discussion in the media. Depending on the size of the project, it may be the Internet, television and the like.

The complexity of project elaboration and presentation is relative, not absolute and is assessed according to the severity of the social impact or the size of the project. The technical details of processing requirements can be dynamically corrected according to the current situation. These proposals regarding complexity and solutions may again fall within the *Systemic Competence* process, so the same process could solve its own complexity.

The elaboration of a project for the approval process is the first fundamental filter of *competence*. The aim is to ensure that all the submitted projects are at a relatively good level, which means a better shape than any traditional policy solution today.

3.2 Public voting

The public itself simply expresses its consent / disagreement after watching / getting acquainted with a particular project in the usual way, as we do on the Internet today when we like or dislike something. The argument here is that although individual people (independently from each other) do not have to have a narrow technical *competence*, so that one might think they cannot vote and co-decide, the public as a mass with the professional support of all the *problem solvers* entering into competition (that is, this whole synergized set of people) is not „stupid". In the case of a large number of diverse people familiar with these projects, the „statistical probability" plays a role in favor of a favorable decision (the so-called wisdom of the crowd manifests). In other words, with the help of media, people's train of thought is redirected to current problems and their solutions presented by competent problem solvers at the given time.

It is not about diverting public attention to mere *social symptoms* for the purpose of ideological manipulation, as is the case today with politics. Instead, it is is a matter of focusing on the deepest possible *roots of the symptoms*in the long-term societal as well as individual interest. The attention of the attention will therefore, for a relatively short period of time necessary for a decision, focus on one problem under the leadership of this temporarily formed group of *competent* persons and will select the „best" project from the „good" ones. Although not all people may have detailed knowledge of an effective solution to a given problem, when voting, the voter simply „intuitively" leans towards one of the presented solutions. From a technical and psychological point of view, it is a statistical behavior based on the submission of *competent* proposals for solutions. The result is the selection of the most suitable solution at the given time in a very simple democratic way through effective voting over the Internet. The basic formula for public evaluation of each project could be as follows:

$$H_p = \sum_{i=1}^{I}(A_i - N_i) \quad A_i, N_i \in \{0,1\} \qquad nebo \qquad H_p = \sum_{i=1}^{I} \psi_i \qquad \psi_i \in \{-1,0,1\} \qquad (1)$$

where H_p is the total assessment of the project with the index p in a particular round, I is the total number of voters; A_i is a vote for the project from the voter with index i and N_i is a vote against the project from the voter with index i, which can have either 0 or 1. We can also use a simpler form in the right part of expression (1), where the variable $\psi_i$has either a value -1, which means a vote against the project, or 1, which means vote in favor of the project.

Cycle / Time / Educational process
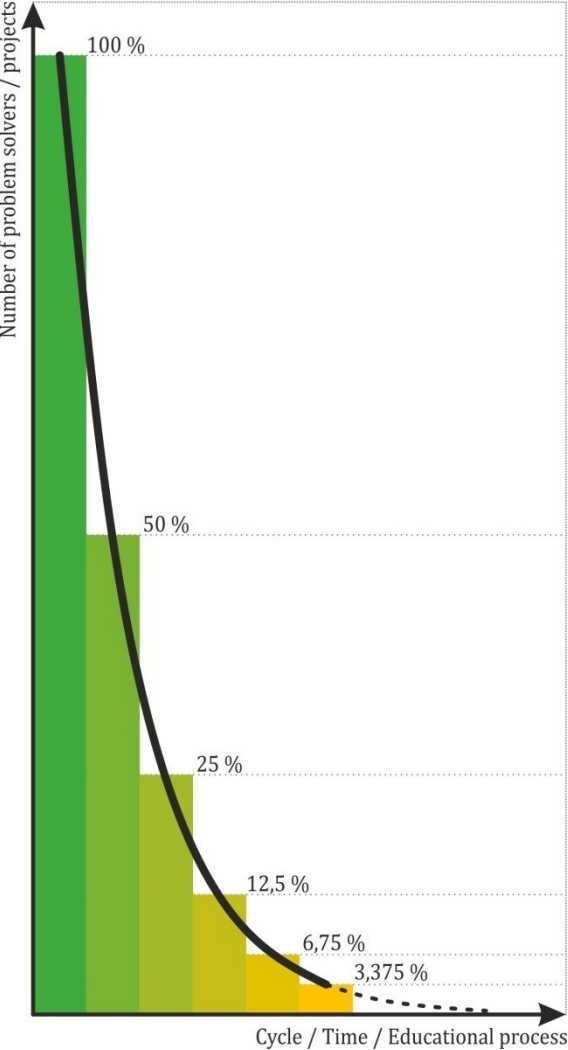
The process could take a universal form, as the graph shows. In the first round for example, 50% of the best projects could be selected from the total number of submitted projects based on the expression (1). From this selection then in the next round again 50 % of the best projects could be selected. This cycle continues until at the end only the winning project remains. Simultaneously, throughout this process, the public is being non-violently educated by means of observation and consideration of the projects on how to solve the given problem. Over time, this can result in a change of intermediate results at the end of each round. For example, a project that was ranked as number one after the first round, may not be in the same position after the next round. Likewise, a position change of individual advancing projects can be also caused by the fact that problem solvers also learn and adapt / complement / change their projects, so that they are always better, which means projects could be updated after each round and before advancing into the next one. This keeps them constantly alert and active and the process dynamic. More rounds means not only that the presented solutions can be improved but that the problem solvers' character and „background" can be expressed. So both, a shorter as well as longer process have their specific advantages.

The 50 : 50 percentage ratio (50 % of projects

advancing into the next round and 50 % of projects rejected in that round, corresponds to a convergence coefficient $k = 0,5$) seen in the graph is selected here only as an example. This ratio is a variable parameter that can be changed at discretion (the convergence rate can be set to, for example, 20 : 80 or 1 : 99 in the case of small or less significant projects and the like). This means that in some cases it may not be appropriate to have too many rounds and in other cases it may not be appropriate to have only one round (for example, a theoretical, albeit unlikely, possibility of an anomaly creation). The advantage of this variability is that it gives us the opportunity to choose a parameter according to the situation and thus optimize for a specific decision-making process. The concept satisfies the condition of a *universal algorithm* for any situation and scale. Only one parameter needs to be changed here. Naturally, we can also find an *optimization formula* for this variable parameter in the future. Then people would not have to determine it intuitively / according to practice. I assume that this formula will already be implemented in some form in NL / RBE. For the time being, we will express the relationship between the convergence coefficient k, the number of „competition" rounds K and the total number of projects P_0^+ entering the „competition":

$$P_0^+ \cdot k^K = 1 \;\Rightarrow\; k = \sqrt[K]{\frac{1}{P_0^+}} \tag{2}$$

Note that the convergence coefficient k is actually the ratio of the (percentage) number of advancing projects P_j^+ to the (percentage) number of entering projects P_{j-1}^+ for a given round index j. The (percentage) number of entering projects P_{j-1}^+ is given by the sum of the (percentage) number of advancing projects P_j^+ and the (percentage) number of excluded projects P_j^- for the given round index j:

$$k = \frac{P_j^+}{P_{j-1}^+} = \frac{P_j^+}{P_j^+ + P_j^-}$$

The following relationship applies to each round:

$$P_j^+ = P_{j-1}^+ \cdot k \qquad j \in \mathbb{N}, j \in \langle 1; K \rangle \tag{3}$$

Let's consider, for example, the total number of projects entering into the competition $P_0^+ = 800$. Based on experience with these cases, we set the number of rounds tentatively to $K = 5$. Then we calculate the convergence coefficient k according to relationship (2):

$$k = \sqrt[K]{\frac{1}{P_0^+}} = \sqrt[5]{\frac{1}{800}} \cong 0,26$$

The whole process of proceeding in the "competition" according to expression (3) then looks like this:

1. round:	P_1^+	$=$	$P_0^+ \cdot k$	$=$	$800 \cdot 0,26$	$=$	208
2. round:	P_2^+	$=$	$P_1^+ \cdot k$	$=$	$208 \cdot 0,26$	$\cong$	54
3. round:	P_3^+	$=$	$P_2^+ \cdot k$	$=$	$54 \cdot 0,26$	$\cong$	14
4. round:	P_4^+	$=$	$P_3^+ \cdot k$	$=$	$14 \cdot 0,26$	$\cong$	4
5. round:	P_5^+	$=$	$P_4^+ \cdot k$	$=$	$4 \cdot 0,26$	$\cong$	1

So, the question for the time being remains, what key will we use to determine the number of rounds of the „competition" K in order to make the process more automated. It seems that the formula itself will have to be sought empirically based on the current knowledge of the time. This means that the formula for calculating K could change over time. The artificial intelligence could modify this formula on the basis of gradual learning. The feedback leading to the artificial intelligence system would, of course, always come from humans as well as from system processes that influence the optimal determination of the coefficient.

Also, the very qualitative changes in the decision-making process / voting mechanism could be dynamically addressed in the future by a more complex process of *systemic kompetence* of artificial intelligence, where people are, of course, still the ones who vote / decide.

The entire process of *systemic competence* could perhaps be the only one to be called *democratic* (according to the original „non-distorted" definition of democracy). Due to the fact that the required acquaintance with projects and voting does not take much time (compared to how much time people spend on the Internet today watching „weird" stuff), people could decide on virtually anything that they consider has an impact in their life, in real time, every day. At the same time, their knowledge of the issues is growing. This vibrant, dynamic process of learning and decision-making constantly accelerates as society and technology gradually change (technical means are improving, knowledge databases are expanding and thus technological support for effective decision-making is growing) and people are getting used to this way of social governance just like they got used to constantly staring at their mobile phones and participating in empty discussion on social networks. It seems natural, if only the process was not hindered by the current system and instead was legalized as a *basis for democracy*.

4. OTHER ARGUMENTS

4.1 Natural law

The benefit of this process is the fact that no matter what project is selected from the submitted proposals (even in the event of a very unlikely statistical anomaly - for example in the case of a small number of voters voting for smaller, local one-round projects),even if it is „by chance" the „worst" project, it should always be a better solution than the political solutions today. This is precisely thanks to the conditions of processing, presentation, defense of the projects in front of the public and the elimination of corruption in the crowd vote. The natural law ensures that fewer people study the problem technically in more depth, which in this case are theproblem solvers who naturally come up with a better solution than those who do not study the problem technically, i.e. most people, including politicians. And this relatively small professional and competent group of solvers, thanks to the process of society-wide voting, redirects public's attention through media to what is essential (unlike politicians and their incompetent political debates without detailed and comprehensible projects). This is part of a society-wide educational process - people can easily learn from every single presented and implemented / unrealized project. So this societal process simultaneously ensures at least two things - the technical competence of projects and voluntary education of the public.This brings the whole society to a higher conscious level faster. The advantage and at the same time simplification is that we do not have to divide the company into experts and the others when voting. In a way, everyone has something they are great at and because the world works in synergy, no single vote should be less important or even excluded. Relying on the votes only from the *competent* onesis simply not enough because even this narrow group of experts lacks a greater overview, which provides the general public. It will help everyone get rid of the old patterns of thinking that keep us divided and that we carry as a remnant of historical developments from a time of scarcity and a dual worldview. If we, as a humanity, are to move towards global cooperation, then this is also one of the important points to understand.

4.2 Comprehensibility and activism

This simple proposal / concept could also be more comprehensible to the general public and therefore embodies a greater chance of uniting the masses to pass / enact it. But that is a matter of activism because we still have the same problem here: Since even classical *direct democracy* is still not being implemented in society when it comes to fundamental issues, the question remains, how can we implement this or another similar proposal? It seems necessary to go from „ground up", because our traditional system structure does not allow for the support of a public society-wide debate on this topic. Alternative proposals areby default excluded from the mainstream media as a possible danger to the current social order and its shadow government.

4.3 Systemic competence in NL / RBE

Natural Law / Resource Based Economy is a system designed for intelligent allocation of resources without a price tag, which is made possible thanks to modern information technologies. The system's artificial intelligence evaluates all planetary resources in real time, both locally and globally. Humanity has a much better overview of the possibilities of solving any problem thanks to a dynamically growing database of resources, knowledge, simulations based on known laws of physics and a comprehensive synergistic calculation.

The synergistic knowledge of current problem solvers / teams of problem solvers entering into the competition for the best project will always be very limited compared to the dynamically growing database of everything and complex intelligent calculation. So, it is easy to imagine how easily would this simple concept of *Systemic Competence* turn into an advanced system for solving anything. People will always be the main criterion of satisfaction, but from the point of view of NL / RBE it is about a *long-term satisfaction*, which can only be ensured by a synergistic calculation. It is necessary to take into account everything that is possible at the given time;otherwise, the implemented project could have negative impacts over a period of time, which we cannot predict without this calculation.

For the reasons mentioned above, it is good to set the *Systemic Competence* process to a universal form already today in order to ensure a smooth transition to NL / RBE. The only factor that changes over time is the ever-improving technical means together with a database of knowledge, which gradually takes over more and more *computational control* over the entire ecosystem. The role of people, as mentioned above, remains the same.

5. MAIN CHARACTERISTICS

5.1 A problem solver can be anyone who submits a project solution to the problem. At the time of entering the „competition", project documentation with presentations is made available to the public.

5.2 In the process of getting acquainted with projects and voting, the public is being constantly naturally educated about the issue at hand. The long-term impact on society is easy to imagine thanks to this growth in public knowledge. The public is able to create and make better and better decisions in the context of sustainability. This is one of the reasons why it is important not to draw a line between people and voluntarily involve them in the decision-making process. This way we alsomove from a dual perception of the world to unity.

5.3 The statistical probability with the participation of a diverse population in combination with expert problem solvers and, in the future, with effective synergistic calculation ensures a favorable result at all times.

5.4 If the overall goal of the winning project is not met in the given time interval or if its partial steps are not met, or if unpredictable negative externalities become apparent during the project implementation, there is a possibility of immediate reassessment by having new projects and new voting.

5.5 Voting is absolutely voluntary. This is not only the essence of a „free" society, but also people who are not interested in the issue are unlikely to vote, and thus cannot influence the outcome in a „negative" way - for example, due to their ignorance. Keep in mind that some people may be of the opinion that uneducated citizens should not vote, and therefore still tend to artificially divide people only out of ignorance of this „natural law." An example would be voting on the Internet, where people also vote naturally according to their interest, for example for or against a video or article that they like or dislike. It is obvious that these things work very well and, given the subject presented, the vote reflects its elaboration, which is an argument against the *dividing line*.

5.6 The process of *Systemic Competence*, as described in this text, is a fully *democratic process* according to the original definition of *democracy* (government of the people).

5.7 The process is fully compatible with NL / RBE. If introduced in the current system, society would naturally evolve towards NL / RBE very quickly thanks to the already mentioned voluntary education of the public on relevant issues of sustainability and efficiency and thanks to a mechanism of very flexible solutions to important issues in a short time (problem recognition and definition → solution proposals → voting → implementation of the chosen solution). People could vote daily "on the go" on many social issues that bother them, and the results would come extremely fast compared to today.

5.8 The simplicity of the whole process is an advantage for the general public to understand, approve and implement this idea in the current inhospitable political environment, as it is very likely that it will have to be implemented in the form of „bottom-up" activism.

5. VISUALIZATION OF PROCESSES

Let's imagine that with the help of a unified critical mass of the population, this principle has been implemented in the current political environment. Subsequently, an electronic online database where people can define social problems that bother them and need to be solved (for example by filling in a form) is launched. For each problem kept in the database, an online database of problem solvers with their project proposals solving specific problems is automatically created. Public voting processes regarding the selection of projects in already closed database lists are running in parallel with the process of defining problems and the processes of project proposals.
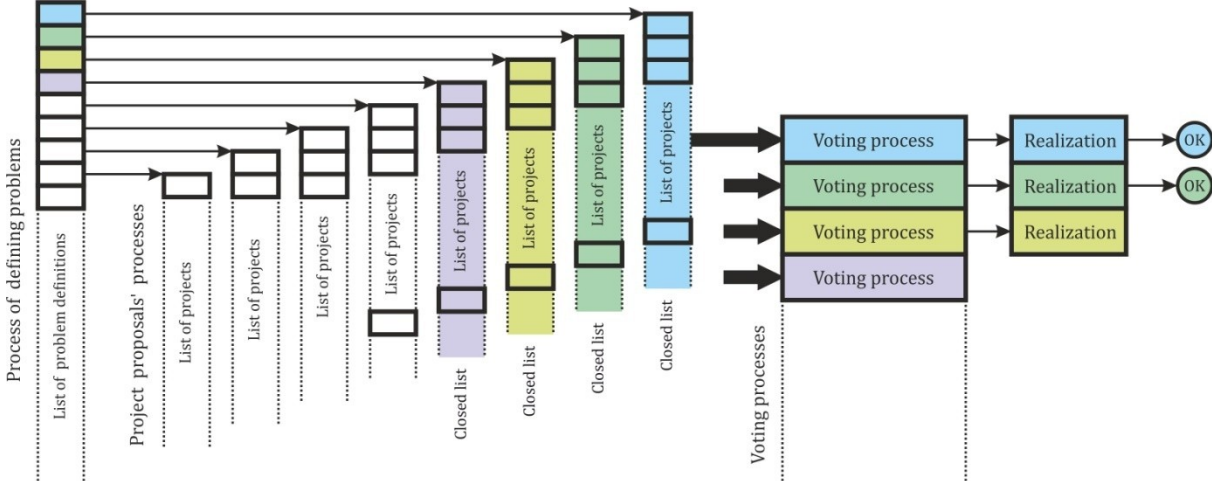
We can surely imagine the explosion of creativity that would probably occur if we agreed on it and introduced it into social practice. Different problems would be solved simultaneously at many levels of society by competent people. The whole society would be directly involved in the management of this new quality of life and would also very quickly see the positive results of this management process, which would speed it up even more thanks to the positive feedback. This democratic way would most likely also gradually eliminate the entire market capitalist system, including money as an outdated means of resource management and the cause of all negative externalities.

So there is no need to try to deal (mostly unsuccessfully) with thousands and thousands of today's symptoms by political means with incompetent politicians, as is customary today and literally waste money, material and human resources and time. It is sufficient to implement the stated principle and its mechanism automatically ensures an effective optimal solution at the given time and a smooth transition to NL / RBE.

6. CONCLUSION

Democracy (by the original „non-distorted" definition) seems possible if people are allowed both, to be the problem solvers and be part of any vote they are interested in, using the relevant „natural law" in conjunction with modern information technology. From a technical point of view, the concept of *Systemic Competence* proposed here can be immediately introduced into the daily life of societal management at any level.