



Better life and business based on the cell, brain, mind, sex laws: LIFE BIZ

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Abbreviation:

- SO – Self Organization
- U – Understanding
- C – Consciousness
- E – Emotions
- K – Knowledge

Brain, mind, self organization laws:

- BRAMA – Brain and mind attraction, 1225 ms
- BRA – Brand the features, 3.6 ms
- AMA – Amass the chunks, 25 ms
- MA – Master the associations, 175 ms
- BILO – Brain internal language organization
- COMET – Compressor, meter
- SAVA – Selective audio video association
- bC – Brain Consciousness
- fbC – Frequency of brain Consciousness = 5.7 cycles per 1000 ms
- BET – Brain event train
- TISS – Time, information, sign, set

Cell, genetic, self organization laws:

- GENIO – Genetic intelligence organization 1250 nm
- BRAG – Brand the features, 3,64 nm
- AMAG – Amass the chunks, 25.5 nm
- MAG – Master the associations, 178.5 nm
- CILO – Cell internal language organization
- CEMET – Cell meter
- CELA – Cell association
- cC – Cell Consciousness
- fcC – Frequency of cell Consciousness = 5.6 cycles per 1000 nm
- CET – Cell event train
- LISS – Link, information, sign, set

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Abstract

Background and Purpose: Explosion of intelligence due to the human interventions leads to prosperity, but also to the strange attractions and dangerous chaos (like a big bang). The way out is presented: the LIFE BIZ theory and practice. It follows the natural life intelligence processes.

Materials and Methods: The life intelligence processes, data and computer models, are described. They come from the experiments with the animals and human.

Results: The map of life intelligence processes is formed. The map presents the figures, curves and data for major processes: aggression, mimicry, chaos, trains, pile up, attractions, courting, mating....emotion, reasoning, consciousness.

Conclusion: The life grows above the bio chemical logic. The business grows above the market logic. Described LIFE BIZ theory and practice explains the life intelligence elementary processes: major basic functions, 30 laws and 100 equations. Through interaction, elementary processes form millions of complex processes: from the cell, brain, mind and sex to the local and global life and business. LIFE BIZ follows the natural life SOUCEK LAWS : Self Organization of the Understanding, Consciousness, Emotions and Knowledge; cell, brain, mind, sex. Joy in the world, for the next generation, for us. Time is life, rather than time is money. Searching for the new LIFE BIZ solutions will require the new research and development. LIFE BIZ will stop the unemployment and the climate change. Strictly related to the Biological sciences.

INTRODUCTION

Leaders make the forecast. His worldwide contacts with bankers, multinational fund managers, and important public officials enable him to make bold forecasts – based on information from those who are in a position to see and profit from major financial trends. His forecasts are based on his thorough understanding of geopolitical forces combined with his personal contacts with the high-powered decision makers in the world of International finance.

Key words: cell, DNA code, genetic intelligence organization, gene, gene link, base, LIFE BIZ laws, SOUCEK laws, courtship, mimicry, send and receive windows, brain, mind, life, consciousness. Business, market, bank, money, computer, neural net.

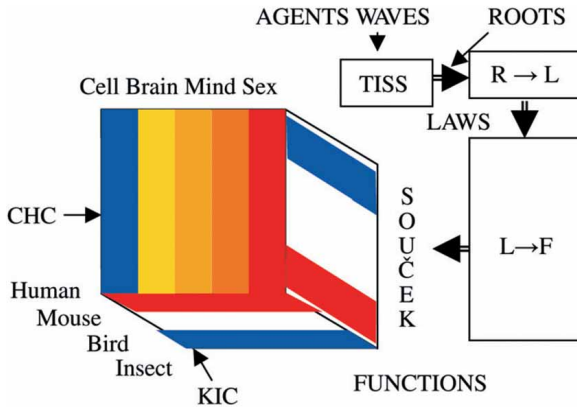


Figure 1. SO BOW over the LIFE BIZ self organization. Point Associators: R-L, Roots to Laws; L-F, Laws to Functions. Red: Long. Violet: short. Point KIC, Knowledge in Insect Cell. CHC, Consciousness in Human Cell.

The world business CRUNCH is now here. The World summits, governments, leaders and sciences are desperately trying to find the way out, with little results so far: Lenders make only totally-safe, no-risk loans. Investors will invest only in sure things. It was 1954 before the DOW Jones Industrial Average reached the level it had attained in the boom of the 1920s. I am proposing an entirely new way out: follow the cell, brain, mind, sex laws (1-32). They also explain the World life and business.

The bio names become the Business symbols. **Living organisms**, say: insect, bird, mouse, human. **Business organisations**, say: workshop, factory, company, bank. Following sections describe the newly discovered life processes. Section MARKETBIZ presents the current developments. Section LIFE BIZ shows the new research, development and theory.

CHAOTIC AGGRESSION; LEARNING; CONSCIOUSNESS

Human Brain, Mind and behavior are composed of communicating agents. Three classes of duets have been identified. **The chaotic duet** is a dynamic structure. Duet trajectories concentrate into a narrow attractor space. This is a case of massive self-organization. **The courting / mimicry duets** are based on symbol-signal processing and are capable of discovering the hidden information by observing sample behavior and comparing it with the past learned experience. **The pattern duet** is capable to recognize inexact, incomplete patterns. Through many duet loops, the human brain agents called katydid, fireflies and birds learn about the partner, and adapt answers and behavior. Symbol-signal processing is responsible for mental states and for consciousness. The genetic, sensation and mental vehicles in all layers of the Barrier, combine the born-with knowledge, with learning. The layers are unconscious of the underlying vehicle traffic regulations. Yet each layer of the Barrier recognizes the intentions and the meaning of quantal messages within

TABLE 1

Courting and mating, or mimicry and eating.

	Cell Internal Language Organization CILO	Brain Internal Language Organization BILO	Mind, Language Bank and Trust	Natural and Financial Sex Behaviour
Patrolling, Courting and Mimicry Signs	cell send and receive windows and bursts	brain send and receive windows and bursts	mental, sensation and genetic windows/vehicles and bursts	body send and receive windows/vehicles and flashes
Stimulus and Response Bursts	Chemical vehicles, Cell Event Trains CET	Family of short Brain Event Trains BET	Cooperation of short Brain Event Trains BET	Light flashes
Box of parallel mating messages	right DNA codes of membrane proteins, short pieces, RNA	right brain event trains and associations	right patterns, mental elements, symbols, concepts and stories	right male sperm genome and female sex cell genome
Mating actions and products	New proteins	New features, chunks, associations	Vertical thinking, reasoning, pattern recognition, decision	Mating process
Box of parallel Eating messages	wrong DNA codes of membrane proteins, short pieces, RNA	wrong brain event trains and associations	wrong patterns, mental elements, symbols, concepts and stories	wrong partner's body
Eating actions and products	Box is broken into pieces that serve as food and energy	Box is broken into pieces that serve to form new features, chunks, associations	Box is broken into pieces that serve for mind wandering lateral thinking, ideas	Body is broken into pieces that serve as food and energy

its duet domain. The duets are involved in the Universal Brain and Mind self-organization and in perception. The dynamic nodes, groups, flocks and pools form the brain-mind tissue TISS: time, information, sign, set.

COURTING AND MATING; MIMICRY AND EATING

Abbreviations and Table 1 show the Animal and Human Cell Brain Mind and Language. First, the language story is measured by the speaker's innate story meter Request. Second, the story formation is confronted with the accumulated emotions based on the speaker's past experience. Past experience has been measured by the emotion meters: Fight, Feed, Flight, Court etc.

Quantum Mind meters relate the stories and emotions, and the supporting circuits in the prefrontal cortex and in amygdala.

The chaotic DUETS search for a solution: minimal risk and pain; maximal benefit and pleasure. The search is directed back and forth between the cortical columns, thalamus, basal ganglia and amygdala, generating a chain of thoughts. The speaker is conscious of this chain of thoughts. The Principal story and emotion meters keep reducing the search space in every step, in a fast and approximate way. This compression emerges from the dynamic interactions between flocks of selfish neural agents. Universal selfish agents are present all over the animal and the human world. These selfish agents do not have representations of the environment, stories and emotions. They respond to the present state of their neighbourhood and to the accumulated past history of stimulation. The behavior and the rule set of a selfish agent are controlled by its oscillators and memories. The self organization of the agents space leads to the dominant modes, binding the underlying oscillators, which leave the trace in the human evoked potential. In this way the Mind Brain Body Link is closed. The building bricks and the self organization is the Link of the Mind-Brain-Body holistic structure.

MOSAIC. Short time local processes, are the pieces of mosaic needed to explain the brain and mind. The pieces form the long time complex processes, in the neural networks, prefrontal cortex, temporal, parietal and occipital cortex as well as in the sub cortical structures. The same laws explain the cell, brain, mind; as well as the local and global life and business processes. The Key processes are: courting and mating; mimicry and eating. These are the dominant forces for the **third Millennium business.**

THE BRAMA PRINCIPLE: STRONG ATTRACTIONS AND PASSIONATE DESIRES

For a long time the brain and the mind are considered to be federations of distinct modules or sub functions. I consider the brain and mind as a single nested, fractal, dispersed entity that uses the strong attractions or desires, BRAMA. BRAMA is the bursting, passionate, unre-

strained, excessive desire. Presented theory is supported by experimental findings, and computer models. I compare the dynamics of the brain and mind with the dynamics of the flock of birds. The flock of birds, the colony of ants, the school of fish, have no leader, and no control mind. It is the individual members following certain simple laws that make the group respond the way it does. In other words, the behaviour is built from the bottom-up and is governed by the cooperative action of many small Brain Mind agents. The BM agents include primitives or components of intelligence, communication and attractions. Resulting decisions, behaviour or organizations are based on: distributed decision making; collaborative reasoning; distributed control; community coordination; cooperation; groupware, attractions.

MARKET_{BIZ}: SUCCEEDING THROUGH CHANGE; »MORE FOR YOUR MONEY«

MARKET_{BIZ} changes are always present: new customer service and decision support are leading areas of revenue growth of companies. Computing is moving into desktop, hand and pocket calculators. Decisions support systems proliferate in cars and houses. A large percentage of them will have to deal with fuzzy and inexact data. Long decisions cycles must give way to very quick decisions based on available informations: in education, medicine and ecology; in food and power systems. Users will expect systems capable of learning from experience and building personal memory based on associations maps. Personal assistant and decision support systems for managements and manufacturing will dominate the market over the years; until the CRUNCH.

LIFE_{BIZ} FOLLOWS THE LIFE PROCESSES: »JOY TO THE WORLD«

LIFE_{BIZ} is a major, dominant change: from the market processes to the natural life processes. The related life processes and models are described in minute details in the evergreen books (12-19); as well as in (1-31). For the summary of life intelligence processes see (32). In (32) each process is presented in his specific figure. The curves and numbers strictly follow my experimental data. Now, for easy transition from the life processes to the LIFE_{BIZ}, I am using in both cases the same figures and symbols, in the following way.

Living organisms: insect, bird, mouse, human.

LIFE_{BIZ} organizations: workshop, factory, company, bank

Laboratory, department, university, ministry

Living organisms units: cell, brain, mind, sex

LIFE_{BIZ} organizations units: cell, brain, mind, money/data interchange.

Current business disease reaches epidemic proportions. It is the time to search for internal hidden triggers in the business cell, brain, mind and sex. The triggers combine the internal signals and create entirely new

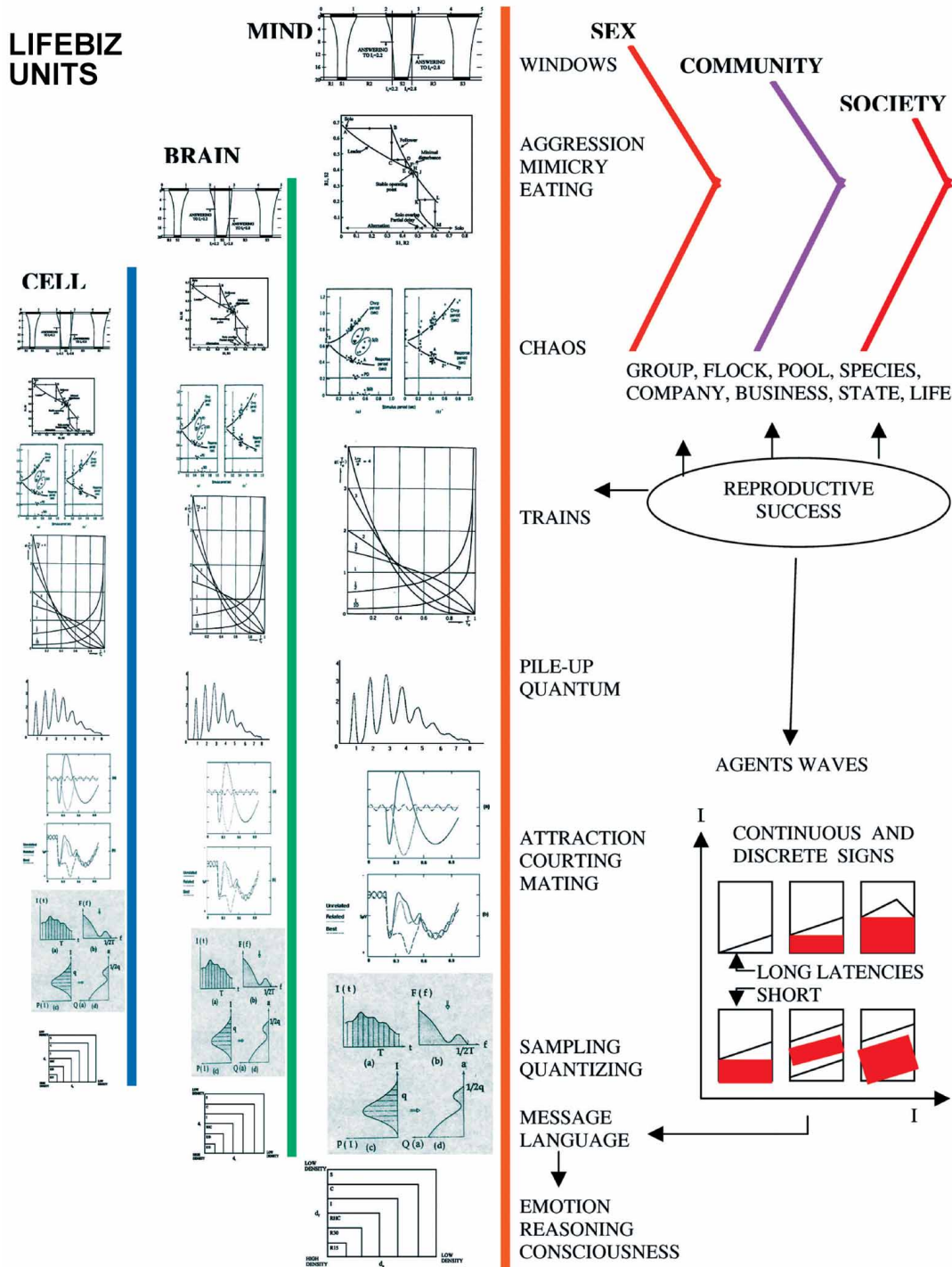


Figure 2. SOUCEK LAWS over the LIFEbiz UNITS:CELL, BRAIN, MIND, SEX.

meaning and specific internal languages: cell, CILO; brain, BILO; mind, animal/human languages. The complex, massively parallel internal associations matrixes combine the signals into roots; into processes; into laws; into functions.

Figure 1 presents the self organization bow over the LIFEbiz intelligence. Figure 2 presents the map of the

LIFEbiz intelligence processes: windows, aggression, mimicry.....emotion, reasoning, consciousness. Example 1: LIFEbiz mind aggression is related to many smaller LIFEbiz brain aggressions; to many, many small LIFEbiz cell aggressions. Example 2: the train processes are the mixtures of Poisson and periodic components. Again LIFEbiz mind train grows above

many LIFE BIZ brain trains; above many, many LIFE BIZ cell trains. Example 3: Pile up process combines the random times with the convolution of Gauss amplitudes. Large mind pile up grows above many small brain pile ups; above very large number of miniature cell pile ups. In both: LIFE and LIFE BIZ. In general, variety of complex LIFE BIZ processes and systems are growing above the multiple interactions between elementary processes. The above concrete processes, curves, data and figures, present the base for the original, scientific, professional analysis of LIFE BIZ processes. This is an entirely new way to the new life and business; to the future.

The cell, brain, mind and computer links and discoveries (1–32) should be extended and applied in LIFE BIZ economy, science, medicine, education, technology, ... Brain like computers and business systems include: adaptive and learning systems, artificial and neural systems, neural computers, adaptive goal directed expert systems based on genetic mutation algorithms, event train computers, transformation and mapping systems, associative memories and processes, fuzzy and pseudo associative systems, hypercubes, array processors, programmable connections machines, concurrent systems and computer and systems that follow neuro biology and behavior. By treating biological, economical and technological systems alike, LIFE BIZ both advances and opens new job profiles and business. To be attractive for the market, consumer goods and industrial hardware of all kinds must be wrapped into LIFE BIZ package which includes: natural interface to the users based on non restrictive dialogue, speech and image; features of adaptability, learning, sensing the environment; human like behavior offering the users a new sensation of mind and body, new experiences happenings and pleasures. These require qualities and status associations. Commercialisation of LIFE BIZ products, networks, technologies and concurrent systems and intelligent real time systems will grow rapidly, including: new products, applications, chips, systems, training, consulting, and re-

search that focuses on neural, concurrent or intelligent systems. Government funding organizations should support the biologically based computing. Investments and capital fundings from banks and venture capital should flow into the LIFE BIZ. The application areas include: pattern recognition in business, signals and images; speech, vision, robotic, industrial and financial process control; knowledge data bases, online simulation and decision making, intelligent artificial organs, psychology software and services. **Productivity and quality through research and development in LIFE BIZ systems enhances competitiveness in the world market and in the new way of living.**

The bible is speaking of 7 good years and of 7 bad years. The stock market cycle is about 49 years. The agriculture and the Morava man appear about 13000 and 26000 years ago. The above data as well as the cell and brain data are used to form Figure 3. **Figure 3** shows the SO BANG, CRUNCH and the WAY OUT. SO BANG grows from the fast human interventions. It will change the predator, pray cycles and their amplitudes and speeds. Human community and society must learn from the nature. No investment team is complete these days without the SO learned from cell and brain.

The ultimate strategy is *succeeding through change*, where only the best intelligent agents survive in a **self modifying** system.

CONCLUSION: FUTURE=LIFE BIZ

The World Forums, January 2009, have concluded: »The raw unregulated market business doesn't work. Ask the experts what to do, and the most honest reply is: I don't know.«

My reply is:«we should do the LIFE BIZ»

LIFE BIZ follows the natural life SOUCEK LAWS : Self Organization of the Understanding, Consciousness, Emotions and Knowledge; cell, brain, mind, sex. Joy in

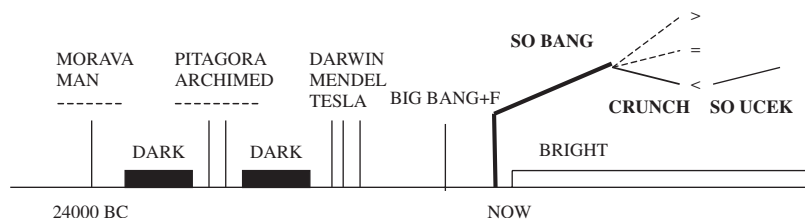


Figure 3. SO BANG, CRUNCH and the way out.

From the special bright BRAINS; over very long dark ages; to the financial deregulation BIG BANG + F; to the intelligence SO explosion, named SO BANG; and to the bright future.

Line >: natural resources > population needs; SO BANG grows.

Line =: natural resources = population needs; SO BANG is stable.

Line <: natural resources < population needs; SO BANG becomes

CRUNCH: a difficult moment at which important decisions must be made. When it comes to the crunch, you reach the point where to act and decide. You, company, country, world. CRUNCH might lead to: paradise reduced to the local and global oases; warm planet, epidemics; time machine; strange attractions and dangerous chaos; modified population needs.

Solution is the UNIVERSAL Law of Life:

SO UCEK: Self Organization of UNIVERSAL Consciousness, Emotions and Knowledge. This law governs the whole cell; the whole brain; and the whole earth communities and societies life and business. This law leads to the intelligent business, bio technology and medicine, long and happy life.

the world, for the next generation, for us. Time is life, rather than time is money. Searching for the new LIFEbiz solutions will require the new research and development. LIFEbiz will stop the unemployment and the climate change. Far from »The Modern Utopia« and from »The Big Brother that is watching us«. Strictly related to the Biological sciences.

For equations, data files, figures, tables and instructions see (1-32), with long lists of references describing my concrete models experiments and results. Your life and business are the specific pieces of the World life and business. **Find your massively parallel links; and use the right combination of the SOUCEK laws: they explain the cell, brain, mind and sex; as well as the local and global life and business.**

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REFERENCES

1. SOUCEK B 1964 Monostable Systems Triggered at Random. *Nucl Instrum Methods* 29: 109–114
2. SOUCEK B 1965 Application of pile-up distortion calculation. *Rev Sci Instrum* 36: 1582–1587
3. SOUCEK B 1971 Influence of the Latency Fluctuations and the Quantal Process of Transmitter Release on the End-Plate Potentials' Amplitude Distribution. *Biophysical Journal* 11: 127–139
4. SOUCEK B 1971 Complete Model for the Statistical Composition of the End-Plate Potential. *J Theor Biol* 30: 631–648
5. SOUCEK B 1973 Applications of computers and mathematical models to the study of neuronal systems, Nuclear and neuronal pulse spectrometry. *Computer Physics Communications* 5: 115–122
6. CARLSON A D, SOUCEK B 1975 Computer simulation of firefly flash sequence. *Journal of Theoretical Biology* 55: 353–370
7. SOUCEK B 1975 Model of Alternating and Aggressive Communication with the Example of Katydid Chirping. *J Theor Biol* 52: 399–417
8. SOUCEK B, VENCL F 1975 Bird Communication Study Using Digital Computer. *J Theor Biol* 49: 147–172
9. VENCL F, SOUCEK B 1976 Structure and Control of Duet Singing in the White-Crested Jay Thrush. *Behaviour* 57: 20–33
10. SOUCEK B, CARLSON A D 1986 Brain Windows in Firefly Communication. *J Theor Biol* 119: 47–65
11. SOUCEK B, CARLSON A D 1987 Brain Window Language in Firefly. *J Theor Biol* 125: 93–103
12. SOUCEK B, CARLSON A D 1976 Computers in Neurobiology and Behaviour. Wiley Inc., New York.
13. SOUCEK B, SOUCEK M 1988 Neural and Massively Parallel Computers. Wiley Inc., New York.
14. SOUCEK B 1989 Neural and Concurrent Real-Time Systems. Wiley Inc. New York.
15. SOUCEK B and the IRIS Group 1991 Neural and Intelligent Systems Integration. Wiley Inc, New York.
16. SOUCEK B and the IRIS Group 1992 Fast Learning and Invariant Object Recognition. Wiley Inc, New York.
17. SOUCEK B and the IRIS Group 1992 Fuzzy, Holographic and Parallel Intelligence. Wiley Inc, New York.
18. SOUCEK B and the IRIS Group 1992 Dynamic, Genetic and Chaotic Programming. Wiley Inc, New York.
19. PLANTAMURA V L, SOUCEK B, VISAGGIO G 1994 Frontier Decision Support Concepts. Wiley, New York.
20. SOUCEK B 1998 Quantum Mind – Evoked Potential Link. *Per biol* 100(2): 129–140
21. SOUCEK B 1999 Quantum Mind Emerges from the Prefrontal Cortex Nested, Fractal Chaos. *Per biol* 101(2): 109–119
22. SOUCEK B 1999 Quantum Mind Compresses the Verbal Stories. *Per biol* 101(3): 193–201
23. SOUCEK B 2000 Quantum Mind Measures the Verbal Stories. *Per biol* 102(4): 331–342
24. SOUCEK B 2001 Universal Brain Theory: The Self Organization of Understanding, Consciousness, Emotions and Knowledge. *Per biol* 103(3): 219–228
25. SOUCEK B 2002 The Brain Agents Universe. *Per biol* 104(3): 353–369
26. SOUCEK B 2002 The Brain and Mind Tissue, TISS: node, group, flock, pool. *Per biol* 104(3): 345–352
27. SOUCEK B 2003 The Brain and Mind Attractions, BRAMA, the Brain Internal Language Organization, BILO, the Consciousness. *Per biol* 105(3): 207–214
28. SOUCEK B 2004 The genetic and learned brain and mind event trains BET and signs: BILO, COMET, SAVA, CON. *Per biol* (106)3: 265–278
29. SOUCEK B 2004 The DNA code, the brain event trains BET and the self organization SO make a single entity: life and consciousness. *Per biol* 106(4): 443–444
30. SOUCEK B 2005 Genetic Intelligence Organization GENIO. *Per biol* 107(4): 385–392
31. SOUCEK B 2007 Genetic Intelligence Universe GENIUS+; Cell internal language organization CILO; Origin of life and consciousness. *Per biol* 109(2): 89–99
32. SOUCEK B 2008 Self organization of understanding, consciousness, emotions and knowledge: Cell, Brain, Mind, Sex. *Period biol* 110 (1): 3-10

EXIT FROM THE WORLD CRISIS

Self Organization of Understanding, Consciousness, Emotions and Knowledge

SOUCEK-LIFEbiz

MARKETbiz is growing through the application of advanced technology in the market and finance. The back propagation has been used in the long range of marketing and political forecasting. Rule based systems assume that when an event perturbs the systems, it will revert to equilibrium after a short time. Neural networks, Genetic and Fuzzy algorithms solve problems by evolving solutions as nature does. All these systems correctly predict market direction when the moves are small, but they are wrong on almost every large move. The result might be the CRUNCH, see figure 3.

LIFEbiz follows the SOUCEK laws: Cell, Brain, Mind, Sex (1-32). The first important step of nature is the pre-processing of signals and data. Before performing any useful forecasting, SOUCEK laws extract leading indicators from the time series. This is the most critical part of constructing a good decision: in the live cell, brain, mind and sex; as well as in business. Second important step of nature is the conversion of input data into the fuzzy representation for collection of membership functions. Within each class, the membership measures the degree of adherence to the particular attribute of a class. A group of fuzzy rules forms a fuzzy associative memory. When a set of inputs arrives, each rule or law that has any truth in its premise, will be fired. See figures

1 and 2. Many life decisions are the result of pain taking trial and error: the life rules and laws are hidden. These is why it took 50 years to discover SOUCEK laws (1-32). Now these laws explain the life in a new way, with the functions, equations and numbers; hence above the verbal descriptions. Now we can use these laws to analyze the life in a more precise way.

Understanding SOUCEK laws is necessary to have an inside view in the life and in the business. With this **SEMINAR** you will become the LIFEbiz expert and leader. You will create a new life and business; science and technology; physiology and medicine. You will stop the world crisis, unemployment, climate change. You will become the **SOUCEK-LIFEbiz WINNER IN YOUR FIELD**.

NOTE 1:

Upon receiving your E-mail request, I will E-mail to you:
SOUCEK LAWS
(10 publications = 10 files = 100 pages)

NOTE 2:

For details of experiments and models developed through time see the evergreen books (12 to 19).

When I receive your request for seminar, together we shall fix data and place...