

## The Speech by Mr. Branko Katalinic on the Occasion of the Award of his Honorary Doctorate from the University of Novi Sad

### Globalisation

The most suitable word for “one-word-description-of-actual-state-of-the-World” is the “globalisation”. Globalisation is the most important mega trend at the end of 20<sup>th</sup> and begins of 21<sup>st</sup> century. There are many different definitions of globalisation, but the term “globalization” describes the increased mobility of goods, services, labour, technology and capital throughout the world. Term globalisation is new, but the globalisation as process is very old development.

Its pace has increased with the advent of new technologies, especially in the area of transportation and telecommunications. Big milestones for the globalisation are introducing of following transportation / communication means: caravans, horse carts, caravelle type of transoceanic ships, railways, highways, container ships, airplanes, telecommunication and internet. The trade cycle tact time (decision to buy, payment, delivery of goods) is radically decreasing, the frequency of trade cycles is dramatically increasing such there is illusion that the world is going to be smaller and smaller, and runs quicker and quicker. Globalisation is complex process which has many different faces and forms.

Globalisation makes deep global economic, cultural, social, political, and technological changes. This process is not balanced and brings many advantages and disadvantages to the people all over the world. The main disadvantages of globalisation can be formulated as:

- “Who has more than enough - he is getting more, and who has less than enough - he is getting less”,
- “The World is not going to be better place to live”,
- “The World is not going to be more stabile”.

The main advantages of globalisation:

- Transfer of Technology. This is the most intensive transfer of technology in the history, crossing political borders of former antagonistically oriented political systems (example: high tech transfer for China),
- Dissemination of knowledge,
- Establishing of global scale of values (example: human rights).

The big winners of globalisation are small number of individuals and unknown groups from developed countries, all other people who are living from own manual and/or intellectual works are the loser of globalisation. The benefits of globalisation are usurped, that is the main point of critical view on globalisation such Jacques Delors, former president of the European Commission is telling: "To rebel against the present international imbalance is sacrosanct, but an alternative is not offered by breaking shop windows. It is time for proposals." Or former Pope of Rome: "Globalisation must not be a new version of colonialism it must respect the diversity of cultures which, within the universal harmony of peoples, are life's interpretive keys. In particular, it must not deprive the poor of what remains most precious to them, including their religious beliefs and practices, since genuine religious convictions are the clearest manifestation of human freedom" (*Address at Pontifical Academy for Social Sciences, April 27, 2000*)

During the past decades the networking was developed as the main strategy to get the profit/benefits from globalisation.

## 10 Key Problems of Today

Large number of present global problems are based on egoisms and large scale misuse of technology. The key global problems of today are:

1. Focus on short term solutions / benefits / profit,
2. "Developed World" as target model for global development,
3. Large scale misuse of technology, and ignoring of nature
4. Unlimited right to make money,
5. Egoism and animalization of human beings – human are more and more presented and treated as animal, and not as human beings
6. Paradigm of continuous permanent growth,
7. Engineers without ethics – Recipe for disaster,
8. Increasing of the complexity of technology – losing of robustness of technology,
9. Specialization in Science – problem of interfaces for complex problems,
10. Domination of "To have" – over "to be".

To solve these problems it is necessary to change paradigm of evolutionary development of the modern society. It is necessary to change the final targets and the methods how to achieve the targets. This is complex task which can be successful completed in collaboration of all segments of modern society.

## Use and misuse of technology

Use of technology is focused on achieving of one of two possible aims:

1. **Welfare and benefits for Individuals and Groups** (Individuals, group of people, companies, nations, states). This is old traditional approach in the use of technology. Main focus is on short term aims and activities.
2. **To secure long-term survival and welfare of human civilisation.** This is new paradigm, based on idealism and dreams and the fact that the resources are limited. The main focus is on long-term aims and activities.

Technological solutions are solutions and all solutions bringing benefits from one and disadvantages from the other side. The time distribution from benefits and disadvantages is very individual for each technological solution and situation. Also the financial value of benefits and disadvantages is very individual for each technological solution and situation. The favourites for the realization are technological solutions which bringing benefits/profit in short period of time, at the beginning of the use, independent of the financial value of disadvantages which are coming later, mostly at the end or **after the use**.

At the time we have large-scale misuse of technology all over the World. The misuse of technology is happening almost always according to the following pattern:

**Classical Pattern of misuse of technology is:** One individual or smaller part of population forces the realisation of technological solutions which bring them the benefits/profits in the short-term. The long-term disadvantages of this solution have to carry out by the bigger part of population. In short: Advantages putting in own pocket – disadvantages shift to the society. (Examples: modern wars, nuclear power plants, agriculture and many others).

## Four wrong models

There are four wrong models for the world wide developing of modern society. Those models are:

1. So-called "developed" world. As target model how and in which direction has to be develop society all over the world as main model is forced "developed" world model. In the countries of the so-called "developed" world an irrational consumerism is spreading, a sort of "culture of waste", this

- is becoming a widespread lifestyle. This tendency must be opposed. Also our planet is 40-60 times too small to organise the life style of developed world for all people on this planet.
2. Rubbish. Till 16<sup>th</sup> century almost all technological products are fully recyclable, since that time the percentage of no recyclable is permanent growing. At the moment this part is dominating and has the strong tendency of grow. The rubbish is growing to the hills around the cities all over the world. Our civilisation can be also called as "civilisation of rubbish", as the production of rubbish is the most efficient and stabile modern production at all.
  3. Unlimited right to make the money. The money expressing values, total value of all values on this planet is limited, but the money is expressed in numbers, and the numbers are not limited. This brings the illusion that the money can unlimited grow independent from limited value of all values. This illusion is one of systematic mistakes in thinking and acting it is also one of the reasons for the actual global financial crisis.
  4. Permanent grow. The most stabile state in the nature is equilibrium, and most unstable is uncontrolled grow. The balance between equilibrium and permanent grow is loosen in the modern world, and must be re-established again.

### **Globalisation as disseminator and killer of Engineering Knowledge**

Engineering knowledge is very valuable knowledge which was generated, systemised and accumulated thru the centuries and generations of engineers. Success of all industrial companies is based on the use and further development of engineering knowledge. Short time profits and benefits is the main target of many of the companies from developed world in the globalised world. That is the main reason for the moving of own activities to the low cost countries. This process is completing in three steps:

1. Step: Moving of production in the low cost countries. As the direct consequence of this activity is the killing of the production engineers knowledge - "how to produce a product"
2. Step: Moving of research and design activities to the low cost countries. Direct consequence of this activity is the killing of the design engineers knowledge - "how to design product"
3. Step: The owner of the company is moving from developed country to the low tax country. In that way the developed country losing all financial benefits of once very successful company.

This development shows that the developed countries can be also the loser of globalisation. As engineers we have to be very sceptical against the killing of engineers' knowledge, as this is the basic ability of one country to survive in the modern world. The engineers' knowledge has to be declared as cultural heritage and no one person or group in the name of own benefit cannot have the right to destroy this knowledge.

### **Triangle of opportunity as conclusion**

“What a wonderful world this would be if there were as many wise people as there are intelligent people.” - *Source Unknown*. Modern times are characterized by the use and misuse of intelligence to make the profits and benefits in short period of time ignoring the long term consequences of this acting. Global application of this model brings the instability and crisis all over the world. It is necessary to make evolutionary corrections on this one dimensional acting. It is necessary to bring our activities in the centre of equilibrium between: Intelligence – Ethics and Wisdom. This is only way to overcome successfully the turbulences of the globalisation and bring the world to the post globalised era.

