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# Lack of Systemic Thinking and Innovation; Case of Slovenia - A Transitional Country<sup>i</sup>

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## ABSTRACT

European Union admits its lack of innovativeness. This holds even more of its ten new member-states from the Central and Eastern Europe, including Slovenia. Her economic and social development reasons for her lack of innovativeness can be summarized in a history of culture preferring (exaggerated) solidarity to entrepreneurship. It is centuries long. The attempt to create entrepreneurship by import of investors with written-off equipment in Kingdom of Yugoslavia times lacked time to demonstrate its success in 1930s. Kingdom experienced a fictitious democracy. In the same period the liberalistic economy led to the big depression. Hitler won – with no democracy – all the wars against countries with democracy, in 1930s. Yugoslavia, including Slovenia, was heavily destroyed in WWII, as well as lost most of the remaining entrepreneurs. In a synergy of all these reasons, people accepted solidarity and accelerated industrialization under Tito. Lack of systems thinking and innovation helped country succeed on a fictitious basis: international debts financed Yugoslavs' living. This could not last. Slovenia went independent and supported innovation legally enough to enter European Union, but less so in real culture and economy. Thus, the so-called transition is not one from socialism to capitalism, but a more natural one – from pre-industrial via the early industrialization to the industrial era. Move to post-industrial era as the one of an innovative society is the next step. It is delayed a lot and causes danger of neocolonial exploitation.

**Key words:** culture, economic development, Slovenia, systemic thinking, transition

## 0. THE SELECTED PROBLEM AND VIEWPOINT OF CONSIDERING IT HERE

Since 2000 European Union (EU) officially admits interdependence of innovation and systems thinking. [1] In its definition innovation is every novelty, once customers find it beneficial. [2] This can be attained with systemic thinking, meaning holistic interdisciplinary co-operation, most probably. [1] EU is unhappy about the degree to which its member countries are responding to its encouragements for fostering

innovation. This assessment applies to old EU member countries equally as to the new ones. [3]

Slovenia is not only a new EU member state. It is also an industrialization latecomer. In 2004 it was found innovative enough to become EU member, due to its institutional framework rather its prevailing reality. There are several models in discussion how to make Slovenia more innovative quickly enough. None is based on systemic thinking enough to really work, I fear. Authors poorly consider e.g. the economic-development roots of the current situation in Slovenia, although they agree that the model of the recent 15 years (independent Slovenia) no longer works, neither do the ones from times called socialism (1945-1991), that were several. My dialectical system of viewpoints for this brief analysis combines economic and culture development.

## 1. THESIS: SOCIALISM – IN THE RECENT HISTORIC PRACTICE OF SLOVENIA: NO POST-CAPITALIST PERIOD

Socialism, as a political notion, has about 180 definitions of its contents. [4] They tell us little about its essence in Slovenia from the development economics and culture viewpoints. For many centuries, Slovenians were subordinated and taught to obey and work diligently rather than to be entrepreneurial and innovative. Masters and entrepreneurs were foreigners by nation and culture. In addition, in her last four decades as a part of Austria-Hungary Slovenia lost twenty (20) % of all population for emigration to USA etc. [5] Of course, the more entrepreneurial ones left, the more passive and solidarity oriented ones stayed. (Their notion of solidarity would be called exaggerated, today, officially, but less so by many non-entrepreneurs in a two-million population of Slovenia.) Kingdom (1918-1941) was not able to modernize Yugoslavia, including Slovenia, enough to catch up with the World's Northwest (WN). The modernization/innovation process went on under a new label – socialism, after 1945. It had little room for entrepreneurs, too. Now, the 20%, who have left, exceed the current percentage of entrepreneurs (and they have never been as many as now): on average a firm employs six, 94% employ none or less than ten, only 0,3% more than 250, in 2004. [6] So, what was socialism in this Central-European area?

## **2. KINGDOM AND TITO'S YUGOSLAVIA: TWO PHASES OF THE SAME TWO-GENERATION CYCLE - FROM PRE-INDUSTRIAL TO MODERN SOCIETY BY ENLIGHTENED ABSOLUTISM**

Both Yugoslavias (1918-1991), in which Slovenians lived after Austria-Hungary, demonstrated equal economic-development orientations of their governments, be it under King or under President Tito – to accelerate transition from a pre-industrial to a modern society. Their strategies differed, their internal economic-development conditions less so. Growth in Kingdom period (1918-1941) was poor; destruction in WWII (1941-1945) was terrible. Both Yugoslavia's basis was a pre-industrial society, self-sufficient agrarian economy dominated, gap behind WN was tremendous, and government saw its duty to act as enlightened absolutism. The latter's role is to accelerate development, even against the will of population who has earlier learned that it is safer to live with no ambition to create, change, possess, and be over average. Solidarity of the equally poor has been a well-accepted culture. Methods of both governments differed more than their economic-development essence. Kingdom of Yugoslavia was at least equally centralized as Tito's »socialist Yugoslavia«. Kingdom did not catch up with the WN in terms of modernization and richness of population. Perhaps its model only lacked time. But people had no chance to value its model: government was centralistic, but seemed politically democratic, and it capitulated in ten days after Hitler's and Mussolini's aggression, left country to their destroying occupation, emigrated, and never returned. Thus, King's government made room for disappointed people to accept an alternative model. [7]

### **2.1. Kingdom: import of entrepreneurs for a private ownership model**

Kingdom of Yugoslavia, like Tito's Yugoslavia faced a lack of entrepreneurial and innovative people in a dominant solidarity culture. Kingdom chose acceleration of development based on private ownership – people experienced it as inequality and abuse of non-owners rather than innovation and progress with benefit for all population. (After WWII, Tito's government nationalized companies with few voices against, but with a lot of opposition when after the agrarian reform land was nationalized – in the form of co-operatives – rather than left to small farmers to own.). As students of economy, even in 1960-1980, we have never heard that exaggerated solidarity blocks economic development that needs innovation. Investment only was mentioned (like in Keynes' economic theory), which does belong in

the innovation process, but it is not its only or sufficient precondition. Schumpeter wrote early enough to be available for consideration in Kingdom, but it was not so either in Tito's Yugoslavia. Otherwise they would support entrepreneurship and innovation much more. [7]

King's government found out that growth acceleration lacks local entrepreneurs and needs foreign ones. In 1928 law allowed them to import written-off equipment. It had both good and bad consequences such as: (1) 87 % of foreign investment covered northwest and Beograd, while the other half of Yugoslavia received 13 % only (mines mostly); difference between south-east and north-west of Yugoslavia grew larger, border coinciding a lot with centuries old border between the orthodox and Islam religion in south-east and the roman-catholic one in northwest. (2) Entrepreneurs were foreigners and favored profit to (exaggerated) solidarity, of course. Solidarity used to solve people's problems for centuries; it also used to teach people to live with no ambitions. Understanding of and respect for entrepreneurship had a poor basis in culture again. (3) Most jobs in factories demanded much more hard physical work than ingenuity, much less unqualified than interesting, creative work. (4) In the prevailing culture, thus, there was no real room for innovativeness to let individuals differ from average in richness, »uncommon sense« ideas, and yielding respect for innovation. A poor development resulted.

### **2.2. Tito's Yugoslavia: centralization of lacking funds causing lack of room for innovation**

Before more serious and long-term positive outcomes of import of entrepreneurs were able to show up, the WWII (1941-45) stopped them. Its end exported foreign entrepreneurs along with the end of Hitler's (German) occupation of Kingdom of Yugoslavia. This occupation caused partisans' insurrection that attracted neither the passive ones waiting for whatever destiny nor subservient ones, but the entrepreneurial ones. Among them, many died. The few remaining entrepreneurs mostly disappeared in the regrettable post-WWII events. [7]

Thus, Tito's Yugoslavia had a handful of entrepreneurial persons left, even less persons with education in engineering and business or economy. The private ownership used to not prove as a source of progress. Country was destroyed and poor. Concentration of economic resources was found the new rational way in this lack of professionals and entrepreneurs. For a while, government took the role of uniting resources. But: for how long, when must, and may, it give up this role in

order not to stop to accelerate, but block innovation/development?

When B. Kidrič was Yugoslavian minister of economy, many new universities and institutes were created, so was the inventors/innovators movement as a massive support to a beneficial economic use of creativity. After his death in 1953 this movement was stopped. In 1965 prof. S. Pretnar as head of the Federal Patents Office renewed it, but faced a big opposition of the solidarity advocates disliking entrepreneurship. There was no link between entrepreneurship and innovation or between them, good life, and socio-economic development in the prevailing culture and policy. Only in 1989, when it was too late for Yugoslavia to survive, there was the 2nd Congress of Inventors of Yugoslavia (37 years after the first one). Realization of its conclusions was blocked everywhere except in Slovenia, the only Republic promoting innovation in years before it and requiring much legal room for entrepreneurship, parliament decisions included. (Slovenia even introduced innovation as a basis of economy in its own constitution, in March 1990. No other Republic or Province in Yugoslavia followed.) [7]

On which basis was centralism prevailing for too long, although diminishing from decade to decade? Findings that came to Tito's Yugoslavia from the West (via Soviet Union or directly), said in terms of experience and policy something that the economics historians detected later on: a society's break from the old and its transition to the industrial and then to the modern life was a government action in the WN. This is not all the truth, but it is the essential first step. It was government that abolished guilds (= market monopolizing agreements of medieval producers) preventing competition and surplus of supply over demand, hence invention and entrepreneurship as well as innovation resulting from their synergies. And it was government that abolished its own union with church, i.e. the latter's monopoly over thinking, which used to prevent, or make difficult, at least, making of new ideas, entrepreneurship and innovation included. (Under the label of Marxism-Leninism Soviet Union tried to make order in firms and country, similar to the WN. Lenin found the Taylor's theory of scientific management very appropriate; from Marx's ideas he was, mostly, interested only in solidarity, acceptable in Russian orthodox culture. Soviet government betrayed both authors and made progress very costly. [8]) [7]

But Tito's Yugoslavia's government moved rather than abolished the guilds' and church's monopolies. Guilds' monopoly was transferred to Chambers of Economy, authorizing the pool of existing firms to decide whether

or not a new competitor is allowed. The ideological monopoly was kept by the only political party (although it was less monopolistic in later decades). In practical, not only legally formal, attributes the situation in Tito's times differed much from Kingdom. In socio-economic effects it was much better, at least in Yugoslavia as a whole while Slovenia was earlier more comparable with its neighbors Italy and Austria (they freed entrepreneurship / innovation earlier). Solidarity between Republics took investment funds from Slovenia and gave her a poorly demanding market. Both made many of its businesses quite sleepy rather than entrepreneurial and innovative. [7]

Democracy, as seen today, provides better conditions for creativity, in principle. But people, who won war over Hitler and Mussolini as occupiers in Yugoslavia, experienced democracy that they could not trust. In Kingdom of Yugoslavia the only party that prepared and accomplished insurrection against occupiers was illegal; parliament experienced shooting to death; from a State of Slovenians, Croats and Serbs via a State of Serbs, Croats and Slovenians the country changed to Yugoslavia as a centralistic dictatorship (with parliament), etc. Briefly, they experienced fictitious democracy with poor economic outcomes. Besides, in 1930s, the liberal model caused the big depression and government became more powerful in USA, too, not only in Soviet Union, while at the same time Hitler was defeating Europe's democratic countries one after the other easily. [9]

Capitalism, not only socialism, has several definitions in theory; it has neither a unified practice nor good attributes only. In 1930s it experienced a big, worldwide crisis making people suffer rather than benefit, in Yugoslavia as well. This made them willing to accept an alternative offer for a government that would – instead of themselves – solve their problems rather than make them responsible, which they had never had to be in their cultures over many centuries. The option of methods for this end has today a very different socio-economic and developmental context. Democracy's content used to be defined much less uniformly that is seems to be today, in practice at least. Impact of the liberal capitalism that surfaced together with democracy in last decades before WWI, made room, around 1930, for the world economic crisis and hence a much stronger role of government of democratic countries of WN in their economies. This role became even stronger in the WWII and later wars and years. The ancient Athens model of democracy applied to a much smaller and less complex society than the modern practice, in addition. What is democracy today – is an open issue. So was it in 1930s. [10]

### **2.3. Both Yugoslavias – two different forms of enlightened absolutism, combined with lots of solidarity**

As a synergy of the briefed processes and attributes, in Slovenia as a part of Yugoslavia, the historic phase called enlightened absolutism had not been outlived, in terms of economic and cultural development, before both Yugoslavias surfaced. It was neither outlived in Kingdom period. In both Yugoslavias its essence proved to be the last phase of the pre-industrial society. Its role is to train people for life in more modern conditions, and to start making this life possible for them, when they move them from villages and fields to towns for work in factories etc. This move, democracy, and market economy make innovation of management of society. [11]

In USA this innovation came about, after the civil war of 1860s had given the upper hand to entrepreneurs. In Yugoslavia, much later, the effect was similar, but smaller: professionals were trained, but lacked entrepreneurial and managerial education and spirit. Keeping to a quite small number of rather big enterprises, Yugoslavia under Tito allowed only few people to use their natural entrepreneurship and innovativeness. She allowed for nearly no market pressure. Solidarity made her different from US and similar to Soviet Union. It is clear: US resulted from migration of the most entrepreneurial Europeans and made the culture with little solidarity prevail much more than in Europe and even more than in Europe's orthodox areas, including Soviet Bloc and Yugoslavia. [7]

Besides, governments of both Soviet Union/Bloc and of Yugoslavia feared their countries would fall apart, if they were more de-centralized by democracy and market principles. Rightfully, we saw later on. [7]

In addition, power-holders made them-selves acceptable in people's perception by enabling a big solidarity; unpaid international debts allowed Tito to provide a standard of living beyond productivity and rationality. People lacked insight into real data, and took the given standard of living for granted and their own success. They kept being told they were successful: there was no big unemployment, no big social differences, no lack of free time and grey economy in it (which is an obstacle to refreshment of knowledge and a basis for routinism, and hard work with little creativity), etc. Traditional routinism and solidarity survived, creating little room for culture of entrepreneurship and innovation. Creative ambition keeps being a weak point, still. [12]

### **3. »SOCIALISM« – MAKING PRECONDITIONS FOR CAPITALISM 1,5 CENTURY LATER**

Both Yugoslavias constitute a single two-generation cycle (1918-1991). Like in WN areas with their earlier transition to the modern society, this cycle's content is the primary accumulation and industrialization as well as of the end of social benefit resulting from the pre-industrial culture of solidarity. Yugoslavias experienced this phase much later than WN and Japan. Dissolution of Yugoslavia was, from this system of viewpoints, unavoidable: her model provided for no more development, including enlightened absolutism as her socio-economic management/governance model. Room for entrepreneurship, legally in the form of private ownership and easy establishment of firms with their duty and right to take risk at their own account, as well as its interdependence with innovation, became unavoidable. Institutionally it became easy to make, less so in culture. [13]

The basic preconditions for capitalism to replace pre-industrial and early industrial phases, called socialism politically, surfaced, but two two-generation cycles later than in WN. This gap of a century and a half means that Slovenia faces a much tougher international / global competition and a much more supplied world market, while closed-in local markets no longer exist. Thus, she is pressed to accelerate her development very much, and to stand pressure of international competitors in an open global market tolerating no developmental differences. This process requires innovation of the culture and socio-economic model. [14], [15]

### **4. INSTITUTIONAL CHANGES – NOT SYSTEMIC ENOUGH, IF LACKING INNOVATION OF CULTURE OF MANY AS WELL AS OF MANAGEMENT/GOVERNANCE**

Institutional, legal, changes are easier to make than a new culture of many. They were made and found sufficient for Slovenia to enter EU. But they cannot produce sufficient innovativeness for the real transition to innovative society to prevail: knowledge and values of people as well as their chances to use them for innovation belong to a system of preconditions, which no institutions can create alone. People read and use legislation, as they perceive it. Support to innovation process is not enough in a latecomer country needing to catch-up. [16], [17]

Technological innovation takes place, (1) after the cultural innovation has made room for it, (2) after the

market and institutional and managerial pressure have made people willing and able to change themselves on their own, as the management and governance innovation. In Slovenia, like in most of the 80 % of population living outside the most innovative societies of the recent 1,5 centuries, this cultural and management/governance innovation is still under way. Historic reasons are clear and tough, but one must no way give in. Even less may one forget about them; this would be a case of a lack of systems thinking, resulting in a lack of innovation and modern life.

Practices of so far in politics, education, and business life have not been creating the culture of entrepreneurship and innovation sufficiently. Reasons are not clear to all, and the future of Slovenia is in danger, if one does not start thinking and deciding about her socio-economic system more holistically – on the basis of systems theory applied to innovation, entrepreneurship, and support for them. One must concert development and solidarity yet. There are many inventions, but few innovations result. Co-operative leaders are what lacks, and so does training for interdisciplinary creative co-operation with systems thinking. Training for it should be provided to all professions.

## 5. SOME SUGGESTIONS

Obviously, Slovenia and its people need accelerated making of innovation a daily practice. She cannot and may not wait: globalization does not wait; spans of richness to the damage of less innovative ones grow very quickly and are enormous. My suggestions to government of e.g. Slovenia include [18], [19], [20], [21], [22], [23]:

- Government (including state-financed organizations) is a big buyer in a buyer's market giving buyers the upper hand in negotiations. Its preconditions for its suppliers should demand suppliers to be the most innovative ones in their industry and to require the same from their own suppliers.
- Entrepreneurship, innovativeness, cooperativeness, inter-disciplinary openness must be included in education of all professions and levels. This applies also to all adults on influential positions.
- Managers, supervisory boards members, exposed professionals must prove their success in invention and innovation processes of so far, before every new term in office.
- This must apply also to all positions in state bodies from the top to local levels, and include permanent innovation of work processes in all organizations

using public funds, including education, medical care etc.

- Institutional order supportive of innovation and entrepreneurship does matter, but it is not enough, unless people have a culture accepting it as normal. Hence, prevailing habits and attitudes of people must receive, at least, the same amount of attention as the institutional order/law.
- Innovation of culture and managerial style, hence, is the most important topic for Slovenia to dismiss consequences of its centuries and decades of routinism and its lag behind the most advanced areas of WN.
- This innovation can receive support from reward system, combining income from work, co-ownership of one's firm, general population's all-economy stock, and innovation.
- Training of adults for new jobs and conditions must consider that the transition from less to more innovative environments is difficult and people need preparation for it.
- In organizations that are less exposed to market pressure, the care for innovation and business excellence must be made an explicit duty and right of managers including those in government bodies/offices.

## 6. BRIEF CONCLUSIONS

The essence of the current problems of e.g. Slovenia lies less in technological innovations and more the cultural and managerial ones. The institutional part of them is quite innovated, but it is insufficient. Values / culture / ethics / norms – their support to innovation and impact over them, this is the most critical issue. They need innovation along with innovation of management toward the management style “we all think, and we all work.”

Slovenia's economic and social development reasons for her lack of innovativeness can be summarized in a history of culture preferring (exaggerated) solidarity to entrepreneurship. It is centuries long. The attempt to create entrepreneurship by import of investors with written-off equipment in Kingdom of Yugoslavia times lacked time to demonstrate its success in 1930s. Kingdom experienced a fictitious democracy. In the same period the liberalistic economy led to the big depression of the world-wide economy. Hitler won – with no democracy – all the wars against countries with democracy, in 1930s. Yugoslavia, including Slovenia, was heavily destroyed in WWII, as well as lost most of the remaining entrepreneurs. In a synergy of all these reasons, people accepted solidarity and accelerated

industrialization under Tito. Lack of systems thinking and innovation helped country succeed on a fictitious basis: international debts financed Yugoslaves' living. This could not last. Slovenia went independent and supported innovation legally enough to enter European Union, but less so in real culture and economy. Thus, the so-called transition is not one from socialism to capitalism, but a more natural one – from pre-industrial via the early industrialization to the industrial era. Move to post-industrial era as the one of an innovative society is the next step. It is delayed a lot and causes danger of neocolonial exploitation. More systemic thinking would provide for a more/requisitely holistic picture and related measures than so far.

## REFERENCES

- [1] EU (2000): *Communication from the Commission to the Council and the European Parliament: Innovation in a knowledge-driven economy*. Commission of the European Communities, Brussels
- [2] EU (1995): *Green Paper on Innovation*. [www.cordis.lu/cordis/grnpaper.html](http://www.cordis.lu/cordis/grnpaper.html)
- [3] Bučar, M. (2004): *European Trend Chart on Innovation. Annual Policy Trends and Appraisal Report for Slovenia. Covering period: September 2003 – August 2004*. Brussels. European Commission, Enterprise Directorate-General. A publication from the Innovation/SMEs Programme
- [4] Černe, F. (1989): Novi pogledi na sodobni socializem. *Naši razgledi*, 38, 2, 27. Jan. 1989
- [5] Enciklopedija (1964): Slovenci. *Enciklopedija leksikografskog zavoda*. s. 58-74. Zagreb. Jugoslovanski leksikografski zavod
- [6] Rebernik, M., et al. (2004): *Slovenski podjetniški observatorij 2003*. Maribor. UM EPF, Inštitut za podjetništvo in management malih podjetij
- [7] Mulej, M. (2004): Entrepreneurship Experience In Slovenia / Yugoslavia Before The Break Of Communism In Europe. In: Schwarz, E., ed: »International Entrepreneurship – Poland, Slovenia and Austria«, E-book, University of Klagenfurt, October, 2004
- [8] Merkle, J. (1980): *Management and Ideology. The Legacy of International Scientific Management Movement*. Berkely, Ca. University of California Press
- [9] Geyer, F. (2005): *Reflections on Socio-cybernetics*. in: Buchinger, E., Mulej, M., eds: Proceedings of the 6th International Conference of Socio-cybernetics, held on 5-10 July, 2005, in Maribor, Slovenia. ISA, RC 51 Sociocybernetics
- [10] Galbraith, J. (1983): *The Anatomy of Power*. Boston. Houghton Mifflin Company
- [11] Mulej, M. (1981): *O novem jugoslovanskem modelu družbene integracije*. Maribor. Založba Obzorja
- [12] Rebernik, M., Tominc, P., Glas, M., Širec Rantaša, K. (2004): *Global Entrepreneurship Monitor. Slovenija 2003. Spodbujati in ohranjati razvojne ambicije*. Maribor. Univerza v Mariboru, Ekonomsko-poslovna fakulteta, Inštitut za podjetništvo in management malih podjetij
- [13] Mulej, M., Ženko, Z., Rebernik, M., Potočan, V., Bučar, M. (2003): Dvovgeneracijski cikli in podjetništvo v Sloveniji. *Naše gospodarstvo*, 49, 5-6, s. 436-453
- [14] Mulej, M. (1994a): Three Years of Support for a Theory: two-generation cycles in the transition from a preindustrial to a modern society. *Cybernetics and Systems*, 25, 861-877
- [15] Mulej, M. (1994b): Dimensions of Change during Development from a Preindustrial to a Modern Society. *Cybernetics and Systems*, 25, 911-930
- [16] EU (2002): *Innovation tomorrow. Innovation policy and the regulatory framework: Making innovation an integral part of the broader structural agenda. Innovation papers No 28*. Louis Lengrad & Associés, PREST (University of Manchester), ANRT – France. Luxembourg. Directorate-General for Enterprise
- [17] EU (2004): *Innovation Management and the Knowledge-Driven Economy*. (2004). Commission of the European Communities
- [18] Čelan, Š., Mulej, M., Kos, M., Klinar, D., Ženko, Z., Bezlaj, C., (2002): *Od invencije do inovacije*. Ljubljana. PCMG
- [19] Čelan, Š., Mulej, M., Kos, M., Klinar, D., Ženko, Z., Bezlaj, C., Knez-Riedl, J., Bastič, M. (2002): *Okvirni metodološki priručnik od invencije do inovacije*. Ljubljana. PCMG
- [20] Mulej, M., Ženko, Z. (2003b): Inovativno podjetništvo kot osebna lastnost in vpliv vlade nanj. *Organizacija*, 36, 5, s. 73-85
- [21] Mulej, M., Ženko, Z., Knez-Riedl, J. (2003d): Državni ukrepi za pospešeno uveljavljanje inovativne družbe. *Organizacija*, 36, 6, s. 358-367
- [22] Mulej, M., Likar, B., Potočan, V. (2005): Increasing the Capacity of Companies to Absorb Inventions from Research Organizations and Encouraging People to Innovate. *Cybernetics and Systems, an International Journal*, 36, 5, 491-512
- [23] Pivka, M., Mulej, M. (2004): Requisitely Holistic ISO Audit leads to continuous innovation/improvement. *Cybernetics and Systems*, 35, 4, 363-378

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