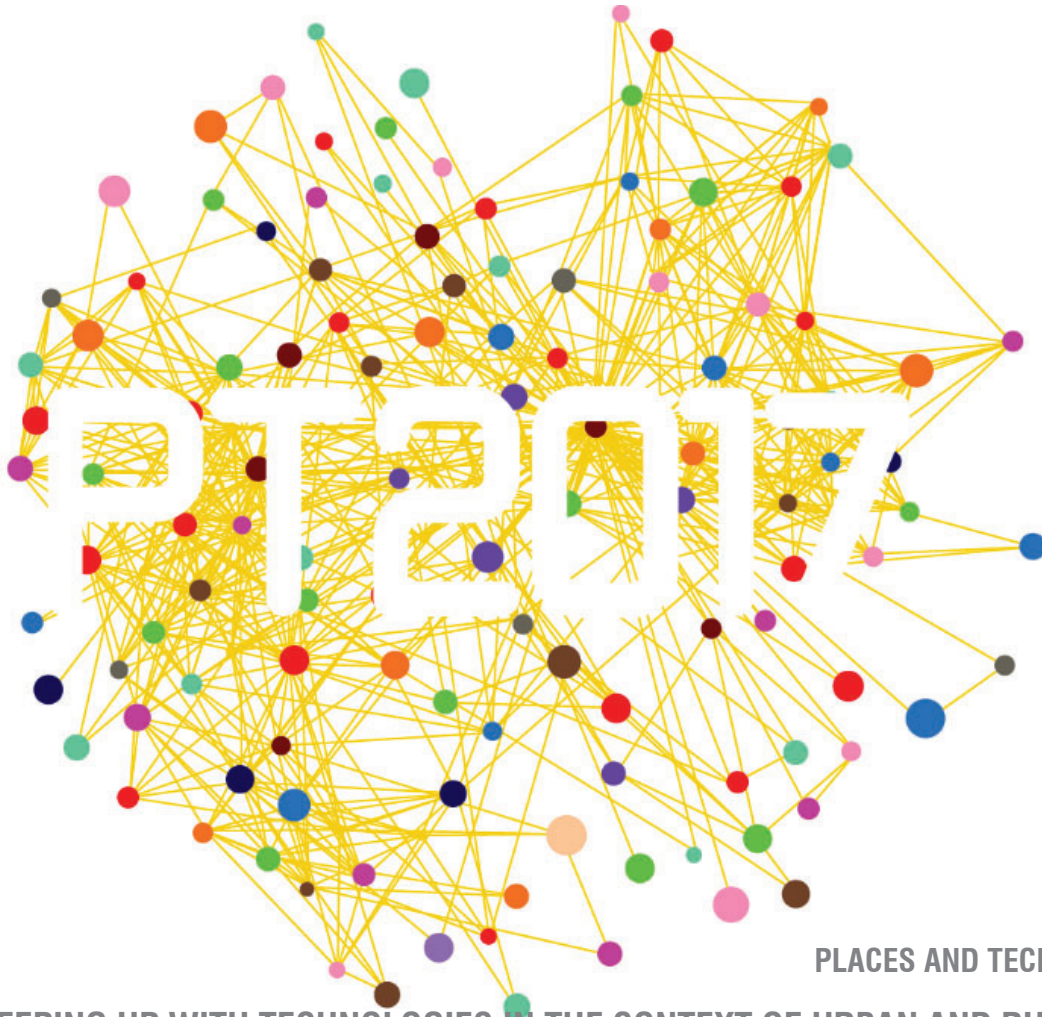


4th International Academic Conference



**PLACES AND TECHNOLOGIES 2017**  
**KEEPING UP WITH TECHNOLOGIES IN THE CONTEXT OF URBAN AND RURAL SYNERGY**  
**Book of Conference Proceedings**

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**KEEPING UP WITH TECHNOLOGIES IN THE CONTEXT OF URBAN AND RURAL SYNERGY**

08 & 09 JUNE

SARAJEVO

BOSNIA AND HERZEGOVINA

**BOOK OF PROCEEDINGS**

**PLACES AND TECHNOLOGIES 2017**  
**KEEPING UP WITH TECHNOLOGIES IN THE CONTEXT OF URBAN AND RURAL**  
**SYNERGY**

**BOOK OF CONFERENCE PROCEEDINGS**

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**Dženana Bijedić, Aleksandra Krstić-Furundžić, Mevludin Zečević**



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## PLACES AND TECHNOLOGIES 2017

4th International Academic Conference

## KEEPING UP WITH TECHNOLOGIES IN THE CONTEXT OF URBAN AND RURAL SYNERGY

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*University of Sarajevo, Faculty of Architecture, Bosnia and Herzegovina*

## TOWARDS SUSTAINABLE REGIONAL DEVELOPMENT THROUGH SOCIAL NETWORKING – „NEGOTINSKA KRAJINA “CASE

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**ABSTRACT**

Like many other rural regions in post-socialist countries, Negotinska krajina wine region faces serious decline in wine production and severe depopulation. In order to reverse these negative trends, strengthening local capacities, through development of social networks, exchange and transfer of knowledge, expertise and know-how, is recognised in planning theory and practice as vital for more sustainable development of rural regions.

This paper presents a process of developing a complex and dynamic model of collaboration between local institutions, companies and communities from Negotinska krajina region and Serbian and Italian academic and scientific institutions, experts and companies, in order to achieve: a) Increased transfer of knowledge, experiences and practices of local representatives and wine growers from Negotinska krajina region and partners; b) Increased know-how transfer among academic partners and practical knowledge transfer among local public, private and civic stakeholders and academic institutions from Serbia and Italy; c) Institutionalized inter sectorial collaboration and 'city to city' cooperation. Some of the partners in this collaboration are: University of Belgrade-Faculty of Architecture; Department of Architecture, Design and Urban Planning in Alghero, University of Sassari; Municipality of Negotin, Municipality of Alghero, Fondazione De Vittorio (ex IRES – Istituto Ricerche Economiche e Sociali); Department Planning Design Technology of Architecture, Sapienza University of Rome; Cantina Santa Maria La Palma – Società cooperativa Agricola per azioni; Faculty of Forestry, University of Belgrade; University of Belgrade-Faculty of Philosophy, and Italian Embassy in Belgrade.

**Keywords:** sustainable development, wine region, knowledge transfer, social networking, collaboration

**Topics:** Social networks – inherited and created

**INTRODUCTION**

This paper is a result of collaboration between the Municipality of Negotin and Faculty of Architecture, University of Belgrade that has started in 2011 and it is still in charge. Through several activities, more than 150 students, and more than 100 professors, experts and top-level representatives of the cities authorities from Serbia and Italy has been included in work on areas of the Negotin Municipality, especially on the famous wine cellars called: 'Negotinske Pivnice'.

**THE PROJECTS**

Everything has been started when the team consisted of students, professors and experts, from Serbia and from Italy, visited the Municipality of Negotin firstly in September 2011. Strong bond between Faculty of Architecture and Municipality of Negotin was established immediately, and first results were made.

In July 2012, students presented their projects considering revitalization of wine cellars and rural areas. Presentations, with exhibitions 'VinoGrad - The Art of Wine' was realized at the Faculty of Architecture, University of Belgrade and in the Negotin, as well.

The whole project was supported by GIZ (Die Deutsche Gesellschaft für Internationale Zusammenarbeit), local Municipality of City of Negotin and local communities of wine producer's villages.

According to the wishes of citizens of Negotin and wine producers, the exhibitions 'VinoGrad - The Art of Wine' was repeated in March 2013 in Negotin.

After all, some of these projects were implemented.

In May 2014, representatives from Negotin Municipality and from GIZ, have been visited Faculty of architecture in the aim to ask for academic support and help for their further plans. They were proposed a new phase of our mutual trilateral cooperation. According to that, in July 2014, Faculty has been organized a working trip to Negotin with an international, interdisciplinary team of professors and experts from Serbia and from Italy (from the Faculty of Architecture, University of Belgrade; from the Italian embassy in Belgrade; from the Faculty of Architecture, University of Sassari and from the Faculty of Architecture, Roma Tre University).

Finally, in March 2015, a big team consisted of students and professors from Faculty of Architecture and Faculty of Forestry (University of Belgrade) and professors and experts, from Italy (Faculty of Architecture, University of Sassari and Italian embassy in Belgrade) and Germany (GIZ), visited the Municipality of Negotin. Future collaboration was hardly encouraged. Faculty of Architecture has developed a 'Participatory Urban Design' courses, on Master study level, that are dedicated to rethinking main problems of rural areas in Negotin, with special consideration of the wine cellars. Faculty of Forestry, Department of Landscape Architecture and Hotyculture, with its professors and students are developing a 'Study of the Cultural Landscape of the Wine Cellars region'. Our Italian friends have been kindly invited to help our activities and efforts.

Considering that the area of Negotin Municipality represents an important wine region, with great history, cultural tradition and heritage, the decision to involve Academic Institutions from Italy was crucial. Due to its evident similarity with Negotin area, which will be underlined in the further text, Alghero/Sardinia/Italy was considered as an excellent partner for providing "know how" in developing specific areas of Negotin Municipality.

Through surveys and meetings of the representatives of the cities authorities from Negotin and Alghero, that took place during the visit in March 2015 (Negotin) and September 2015 (Alghero) we were able to present preliminary elaboration of our efforts in revitalizing abandoned wine cellars 'Negotinske Pivnice', and vision of the main aims of future collaborative and participative development.

Aims of future collaborations are several. Providing 'know how' strategies for reviving economy in this area are an overall goal. The revitalization of the wine cellars, which have the highest cultural and historic value, but also the highest economic value, through different strategies and urban design projects, could be the first and one of the most important step in the urban renewal of rural areas in the Municipality of Negotin.

Finally, on the beginning of 2016 the international, three-years long, project '*Learning Economies. Modelling Community-Led Local Development for the Sustainable Economic Trajectories of the Negotin and Zlatibor Regions*' has been started and it is still in charge. The project is a part of the international scientific and technological bilateral



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cooperation between the Republic of Italy and the Republic of Serbia and includes cooperation among several academic institutions, as well as representatives of public, private and civil sector from Serbia and Italy.

**PROBLEM AND VISION**

According to the results of the interviews with people of Negotin, which we had a several times, during our recent field-research in Negotin area, it could be possible to conclude that the Negotin region is one of the most depressive areas in Serbia. People said that there are many reasons for that: the glorious past is helplessly faced with a poor and depressive nowadays; dramatic decrease of the number of the inhabitants; municipality of Negotin is caught in the process of rapid demographic aging; high percent of unemployed people etc.

*It seems, the hope doesn't live in Negotin anymore.*

On the other hand, Negotin region is obviously filled with the extraordinary possibilities for further development: the Danube river as the main pan-European highway; excellent, unique wine terroir; healthy soil; beautiful nature; high valued heritage; unique tradition; multicultural community; a lot of good people... It seems that with a little help from good friends, the perspective for the better future should be more promising and desirable than it looks like today.

**GOALS, HORIZONS AND AIMS**

The main goal of this project and the future collaboration is to bring back the hope to the people of Negotin.

Although this goal could look like too much poetic, after the very first view at the statistical data of trends, levels and the reasons of emigration from Negotin to the other Regions, it would be obvious immediately, that hopeless people are emigrating because they need to find their missing 'holy gral' of hope. Also, this hopeless homeland is the main reason why many of them, although fighting with nostalgia, never come back home.

Integral revitalization of the Negotin Municipality should be enlightened from different aspects and participatory directed to the visible horizons. These horizons, on which our goals are based, are:

- Agriculture orientation (vineyard + wine + agriculture)
- Danube orientation
- Tourism orientation (wine roads, Danube, heritage, natural beauty, hunting)
- Cross border cooperation

The main ideas and integral visions are developed into the seven primary aims as follows:

- Providing efficient business and knowledge environment, improving quality and optimize quantity of the wine and agriculture production
- Reconstruction and revitalization of Negotin Wine cellars
- Improving the quality and optimize quantity the tourism offerings of the region
- Networking and connecting through the wider regional cooperation based on Danube orientation
- Developing cross border cooperation with Bulgaria and Romania
- Building up the capacity of local municipality – 'know how' transfer and build up local municipality infrastructure for better government

- Institutionalization of “city to city” cooperation with foreign ‘sisterhood cities’ as a sustainable base for knowledge transfer and approach to international funds (Negotin+Alghero)

These aims are not a series of sequential steps, neither hierarchically ordered. They are of similar importance. They are overlapping in time. They have to be realized through an interdisciplinary and participatory approach, as wide as it’s possible.

### **PROVIDING EFFICIENT BUSINESS AND KNOWLEDGE ENVIRONMENT, IMPROVING QUALITY AND OPTIMIZE QUANTITY OF THE WINE AND AGRICULTURE PRODUCTION**

Region of Negotin has basic ‘know how’ in the field of wine production, based on traditional procedures. On the other hand, there is an obvious lack of knowledge in the field of accessing the market or development funds. “Know-how” transfer is a necessity.

Agronomic values, in the history and in the present times, of different ordinary grapes and typologies of wine can serve as a base-point for future development of wine production in quantity as well as in quality. The climatic conditions of the area and the agronomic changes and innovations introduced during the history (including for instance the set up of the school of viticulture in Negotin) and their effects in shaping and managing the land, represent another interesting aspect regarding cultural relevance in terms of value, and are directly showing the potential of this region to manage agricultural improvement as well as to produce better and more wine.

Production values are of great significance considered in relation to the whole communities that are using the cellars during all year. All the life of such places is in fact strongly centered on a real culture of wine and are intimately regulated by its production stages during different seasons. Such aspect of social life should be in depth investigated also as an essential information to structure a proper, sustainable business plan for the further development.

### **RECONSTRUCTION AND REVITALIZATION OF NEGOTIN WINE CELLARS**

Reconstruction and revitalization of Negotin wine cellars are an important step in this project, because it should serve as a serious trigger for the wider future development.

The fact, that the Negotin wine cellars are under the Preliminary considerations for the possible nomination of Negotinske Pivnice into the UNESCO World Heritage List, seems extremely important, not only because of the cultural point of view, but also because of the huge promotional impact, as much externally - out of Negotin, that much inside the Negotin - it strongly builds up the pride of the locals.

### **IMPROVING THE QUALITY AND OPTIMIZE QUANTITY THE TOURISM OFFERINGS OF THE REGION**

Into the “Strategy of Sustainable Development of Negotin, for the period 2012 – 2021”, the municipality of Negotin attaches great importance to the development of tourism, as one of the priorities of local economic development. “Improving conditions for the development and promotion of tourism” is promoted as one of strategic objective with



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the highest priority. Tourist evaluation of existing tourist and transport infrastructure and tourism market; the formation of a unified tourist offer; formation of clusters in tourism; planning and constructions of missing tourism and traffic infrastructure; education and training of tourism workers; domestic and international promotional activities; financing of development projects, are list of the general aims and actions with which local government provides support and much of its capacity is directing towards supporting projects in tourism.

Negotinske Pivnice as a unique, incomparable settlements of wine cellars should be an important stop for every tourist visiting Eastern Europe and one of very important trigger for development of tourism in this region.

Proximity of River Danube should be the highest potential for development of tourism but, touristic and navigable infrastructure is very poorly developed. Lack of appropriate port leave Negotin beside of navigational tourism, unfortunately. It's a big defect, mainly because of a lot of cruisers, with several thousand tourists per year, which passing through Negotin region without any retention.

On the other hand, huge artificial lake above the Hydroelectric Power Station looks like a perfect opportunity for different water-sports, but also has potential to be a port for hydro-airplane (seaplane), which would be the cheapest and fastest solution for solving problem of accessibility of this Region - related to far distance from the main airport in Belgrade.

Also, related to Danube, trough Negotin is passing Euro Velo 6 cycling pathway which is also called the "Danube route" because it's followings one of the largest European rivers. "Eurovelo 6" is roughly 3800 km long (665 km in Serbia) and runs from the Atlantic coast in France east across Europe to the Black Sea in Romania. It's also pretty big potential for development Negotin tourism.

Besides wine tourism, wine roads and the proximity of the Danube river, other qualities of Negotin region could represent basic potential for tourism development, such as: different important events and manifestation with cultural and entertaining character - especially related to music - Negotin has a great and famous music tradition; outstanding natural beauty; high valued heritage - monasteries and ancient archaeological sites; excellent food and rural tourism; unique, calm character of this region; kind and welcomed people etc. There is also great potential for developing of congress tourism, hunting and fishing, sport and recreation tourism and so on.

**NETWORKING AND CONNECTING THROUGH THE WIDER REGIONAL COOPERATION BASED ON DANUBE ORIENTATION**

Danube River, being the second largest river in Europe, passes through ten countries, including Serbia and represents the main connection to European countries.

The European Commission in June 2009 received a mandate from the EU Council to develop a joint comprehensive strategy for the Danube Region.

In December 2010, the European Commission adopted the final document of the Strategy and submitted it for approval to the Council of Ministers of the EU. With a Strategy document an Action Plan was adopted too. Finally, in 2011, the EU Council issued a conclusion in which all stakeholders are called to actively participate in the implementation of the Strategy. The contribution of Serbia in this Strategy is of great importance; hence Serbia will be one of the coordinators for two aspects of the Strategy - Science and Transportation.

Prior goals of EU for connecting through Danube Region are: to improve mobility, to encourage more cross boarding activities, to promote culture and tourism, people to people contacts, to preserve biodiversity, landscapes and the quality of air and soil, to improve the development of society through research, education and information technology, to support the competitiveness of enterprises, to include cluster development, to invest in people and skills strengthening the Danube Region and enhancing institutional capacity and cooperation.

### **DEVELOPING CROSS BORDER COOPERATION WITH BULGARIA AND ROMANIA**

Serbia borders with Bulgaria and Romania, and Negotin province is located directly on the three-border area between these countries. River Danube and river Timok representing natural border and the connection will be catchment area for all of these three regions. Although river Danube and river Timok were state borders for centuries, there is a lot of similarities among those three regions: cultural, natural, economical etc. All those regions are, agricultural, Danube oriented and has a rich wine culture. In everyone of these three regions live multicultural societies. It's possible to say that this three-border area is true "melting pot", in which is melting and boiling a lot of opportunities for local mutual life.

European Union encourages cross border cooperation, and After the unification of Serbia in EU borders between countries will fade and all the neighbour regions will strive to Danube River forming joint alliance.

### **BUILDING UP THE CAPACITY OF LOCAL MUNICIPALITY – ‘KNOW HOW’ TRANSFER AND BUILD UP LOCAL MUNICIPALITY INFRASTRUCTURE FOR BETTER GOVERNMENT**

On the beginning of 2016 the international, three-years long, project 'Learning Economies. Modelling Community-Led Local Development for the Sustainable Economic Trajectories of the Negotin and Zlatibor Regions' has been started as a part of the international scientific and technological bilateral cooperation between the Republic of Italy and the Republic of Serbia and includes cooperation among several academic institutions, as well as representatives of public, private and civil sector from Serbia and Italy. Main aim of this project is the identification and construction of a CLLD-model of intervention on the regional development trajectories. This model will consist of a feasibility study for the implementation of a proactive decision-support web-platform aimed at community-led local sustainable development providing a valuable interface between firms, communities, authorities with solution-oriented innovative approaches in a public and participatory dimension.

### **INSTITUTIONALIZATION OF "CITY TO CITY" COOPERATION WITH FOREIGN "SISTERHOOD CITIES" AS A SUSTAINABLE BASE FOR KNOWLEDGE TRANSFER AND APPROACH TO INTERNATIONAL FUNDS (NEGOTIN + ALGHERO)**

After the first academic results that we have had with the municipality of Negotin, it was clear that the municipality needed to go far-out of the frame of academic workload, and it was obvious that local Municipality was ready to start with the ambitious realization of guidelines from their, top actual and new 'Strategy of Sustainable Development of





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Negotin 2012 – 2021’ and ‘Rural development strategies municipality Negotin 2013 – 2018’, and that they needed foreign experience to reach knowledge and funds for their realization.

After all, our decision to invite our friends from Alghero / Sardinia / Italy was more than appropriate. Counting on a lot of obvious similarities between these two cities, it was expected that Negotin would be visible for Alghero.

Similarities between Alghero and Negotin are numerous. Both cities have around 40.000 inhabitants, that are living in very diversified multicultural communities. Both cities are “cities on the edge” – on the edge of their countries, but also on the edge between the coast and the big water (Tirrenian sea and the Danube River). Both cities have a unique terroir with a long tradition of vineyards and wine production and specific architecture of wine cellars. Both cities are agriculturally based with strong orientation to tourism. Both regions have high valued heritage and extraordinary archeological sites, as well as magnificent natural beauties.

Additionally, during the sixties, Alghero looked even more like Negotin nowadays. Tourism wasn’t developed as today, agriculture production was oriented only to cover local needs, wine production was oriented to quantity, not to quality.

But, to be honest, among all these similarities, there are even more differences between these two cities in frame of same characteristics.

Alghero is very well-developed tourist city with highest total income from tourism in Sardinian region. Oppositely, tourism in Negotin is underdeveloped in relation to excellent possibilities of belonging region. Algerian wines are worldwide known by their quality and quantity as well. Negotin wines are famous in Serbia, but not abroad (honestly, quality of the best Negotin wines is mediocre); this is the price of poverty. Alghero is one of most agriculture oriented and developed region in Sardinia; agriculture products from Alghero are very high in quality, especially regarding olive oil and citrus fruits. Negotin agriculture is not well developed in relation to fertile soil around the Danube and Timok river. Another problem in Negotin in this field is the lack of young workers. This is the price of poverty and high emigration.

All these similarities and differences, between the city of Negotin and the city of Alghero gave birth to another important idea about official institutionalization of sisterhood of these two cities. In this way, new possibilities for a direct exchange of knowledge and experiences, between these two cities Administration, would be widely open. Also, this sort of cooperation would offer a lot of opportunities for new bilateral relations between nongovernmental institutions from different fields, from both cities (private sector, civil sector, etc.). It would open a wide field for exchange, not only knowledge and experience, but also ideas, technologies, investments and finally friendship.

Mutual efforts of both sides can provide a lot of new mutual ideas for new mutual projects, which would be interesting for different EU and other financial funds. It could open new opportunities for funding new development projects. In mutual networking with other cities and regions possibilities are arising.

**CONCLUSIONS**

Transfer of knowledge is crucial for building capacity of local municipality in Negotin.

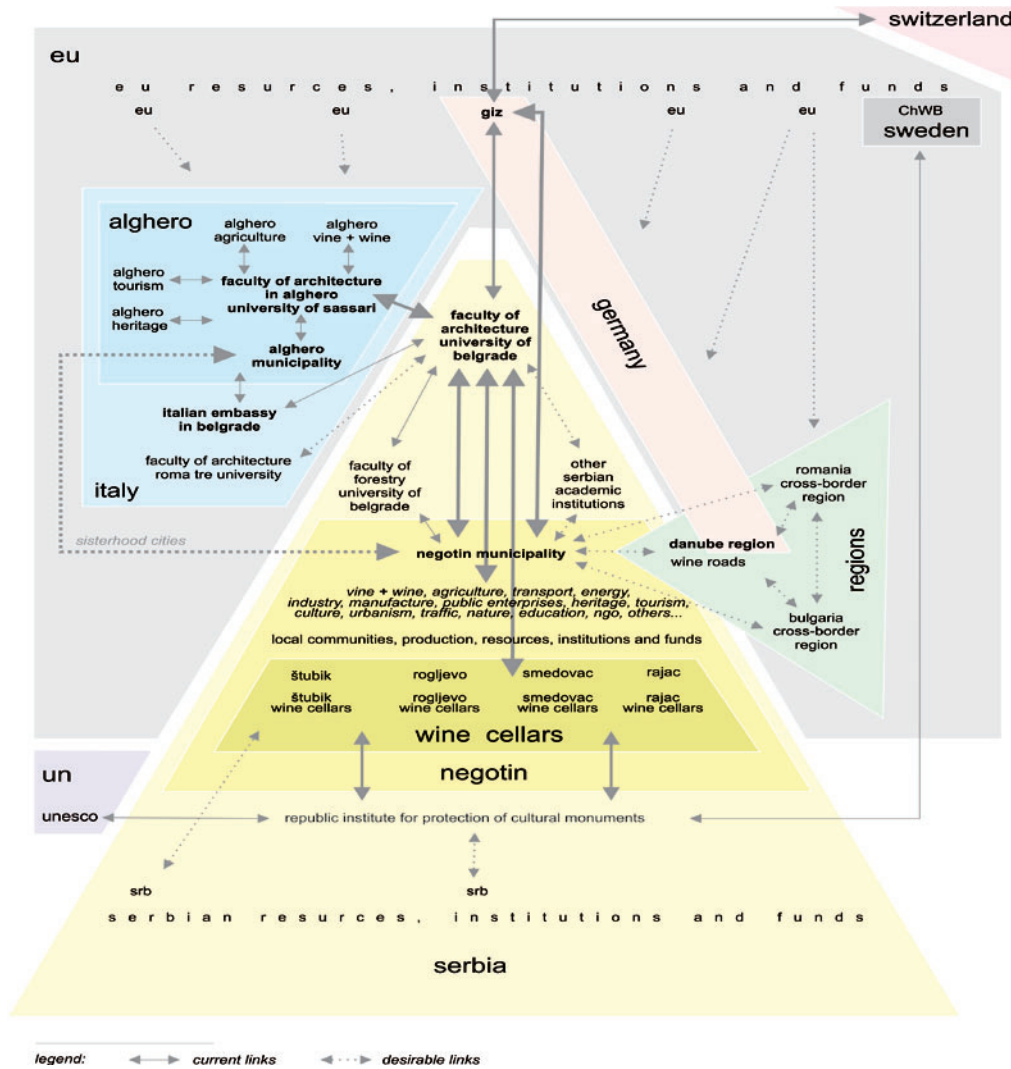
Serbia is a country in transition from a socialist regime to liberal capitalism - from controlled into a conditional market economy. Institutions of city governments, as well as small business entities are still not well adjusted for connecting to the global market.

During a decade of isolation in the nineties Serbian economy has been destroyed and technological equipment is unsuitable, based on outdated traditional technologies.

Serbia is in the front of the door of EU, but still has to harmonize inner state system with EU standards and procedure. Consequently, aid is crucial in the development of technology, as well as in the formation of modern management models, which need to be supported by the widest networking and know-how transfer of different fields of knowledge. Following diagrams show possible networking strategy, which should to provide appropriate knowledge, business, political and financial network environment in the main aim to build up the capacity of local municipality of Negotin to fight with uncertain future and to provide a better condition for improving quality of life for their citizens.



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**Diagram 1: NEGOTIN NETWORKING – THE CURRENT AND DESIRABLE LINKS:** The diagram below shows main current links among active stakeholders and resources related to recent and current activities of the Faculty of Architecture - University of Belgrade in Negotin region. Moreover, this diagram also shows desirable links, which would be useful, or even necessary to activate in next steps toward the initialization of network for development of the Negotin region. It's obvious that impact of academic institutions is still very strong.

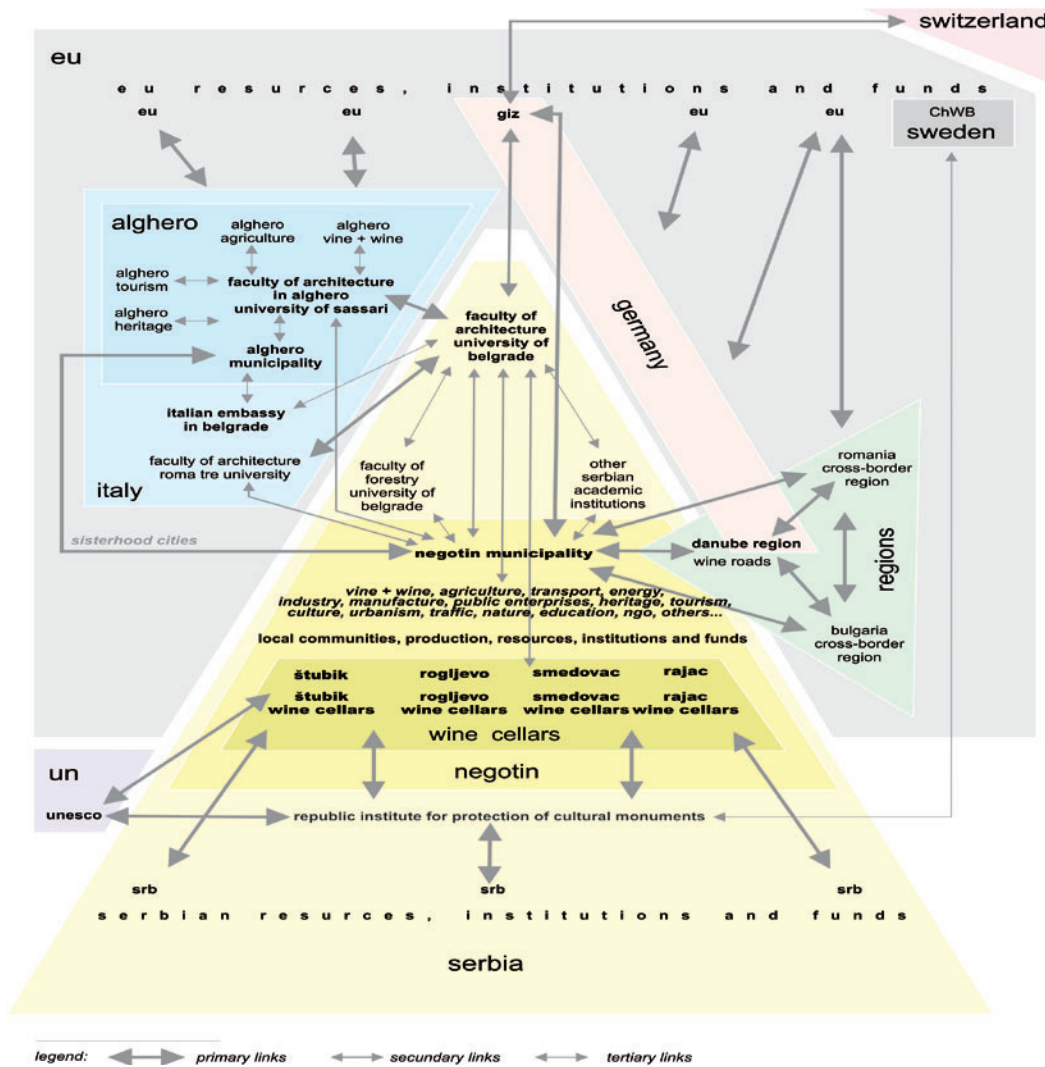


Diagram 2: NEGOTIN NETWORKING – THE DESIRABLE CONDITION OF THE NETWORKING: The diagram below shows desirable structure of links in the well-developed network among all wished stakeholders and resources related to further developing activities in Negotin region. It's obvious that the Municipality of Negotin has to be able to manage this well branched network. It is obvious that academic links with the municipality will become secondary, because, at this stage of the network development, the basic "Know How" transfer will be already successfully completed and will start to bear fruits.