



Waste management curricula development through partnership with public and private sector

author	Dejan Blagojević
Title of document	CONCEPT OF SUSTAINABILITY OF WAMPPP PROJECT RESULTS
Event date	25 Sep 2018
Event venue	Partner P1
Type of event	meeting
language	Serbian

# Control document

Title of document	version	date	Changed/approved
Report draft version	*.ver1	25 Sep 2018	approved
Report final version	*.fin		





CONCEPT OF SUSTAINABILITY OF THE WAMPPP PROJECT





# **CONTENT**

1.INTRODUCTION	4
2.REPUBLIC OF SERBIA-THE NEEDS OF ECONOMY AND THE STATE IN THE AREA OF WASTE MANAGEMENT	6
2.1 ECONOMY	6
2.2.STATE IN THE AREA OF WASTE MANAGEMENT IN THE REPUBLIC OF SERBIA	8
2.3.ECONOMIC ASPECTS OF SUSTAINABILITY	10
3.SUSTAINABILITY OF WAMPPP RESULTS	11
4.SWOT ANALYSIS	18
4.CONCLUSION:	19
LITERATURE	20





# 1.INTRODUCTION

The main principle of European policy is a promotion of strong action in the area of climate change, sustainable development and environmental protection. All countries of the EU have embedded regulations in their legislature referring to climate change, quality of air and water, waste management, environmental protection, industrial pollution, chemicals, noise and civil protection.

From the standpoint of horizontal legislature, Serbia has achieved a high level of harmonization with the legal heritage of the EU. The quality of public events and critical exchange of opinion are being improved gradually. However, stronger capacities for realization are needed, especially on the local level. The process of environmental impact should be additionally improved, especially in cross-border projects and projects in the area of extractive industry.

Strategic assessment of the impact on environment should encompass all the relevant plans and programs, including the national plan for reduction of gas emission.

As it comes to waste management, a good level of harmonization has already been achieved with the legal heritage of the EU. An effort is made to improve the realization in this sector, which is still in its early phase. National Strategy for Waste Management and the plans for management of communal waste should be updated so as to reflect legal regulations on the reduction of waste quantity and classification of waste at its source, in view of encompassing quantitative aims for reuse and recycle of waste material. The share of recycled waste in total waste management is still very low.

It is necessary to put stronger efforts to close wild landfills in Serbia more quickly and invest in classification and recycling of waste. A national integrative plan of waste management should be made together with other economic instruments for control of special waste flows. There seems to be no progress in the field of medical waste. In Subotica, first regional transfer stations have been launched, so this example should be taken in other regions as well.

The main instruments in battle strategy against climate change are de-carbonization, increase of the usage of renewable energy resources and energy efficiency. De-carbonization implies a substantial change in the practical political paradigm, decisive reduction in usage of fossil fuels





and increase in energetic independence of the Union. Long- term goal of the EU is a reduction of the emission of a green-house gas effect from 80 to 95% up to 2050, as compared to 1990.

Battle strategy against climate change is followed by the improvement of standards referring to the operation of industry, especially in the sectors that represent a significant source of pollution. Directive on Great Burners and Directive on Industrial Emission contribute significantly to the reduction of emission of pollutants in the air.

In the process of making environmental policy, the EU takes into account the latest scientific achievements and available data, supports the use of the best available technologies, and acknowledges regional differences and the specificities of different regions.

The main principles of environmental policy of the EU are: precaution, prevention, combating pollution at its source, and "the polluter pays" principle. Creation of the environmental policy implies a respect towards the basic rights and the right of public to take part in the process. The EU is a signatory of Aarhus Convention and the implementation of this Convention is ensured through secondary legislature in the EU.

Legal heritage of the EU in the area of environmental protection encompasses horizontal legislature (process aspects of the environmental right which ensures the right to information access, participation of the public in making decisions, court protection of the right to access information, participation of the public, as well as the responsibility for damage caused to the environment), quality of air, climate change, waste management, water management, environmental and biodiversity protection, control of industrial pollution, risk management, control of chemicals, GMO, noise management, civil protection and cooperation with third world countries.

At the same time, member states are not hindered to maintain and introduce measures that are much stricter than the measures established at the level of the Union, as long as they are compatible with the final goals of the EU and the principles of a unique market. Such an approach to making and administering of policy, as well as its extent, and the cost of harmonization, represents a challenge for a country which is in preparations for membership.





For implementation and administering of legal heritage of the EU in the area of environmental protection, significant investment is needed, as well as a strong and well-equipped administration on national and local level. Member states must establish a special framework for financial management and control, including the audit service.

Process of EU integrations in the area of environmental protection will be realized in three fields: harmonization of regulations, administrative capacity building and institutional capacity building in the area of environmental protection, as well as the provision of funds. Therefore, this chapter seems to be very demanding in financial and administrative sense, especially in terms of well-equipped and trained judicial and management structure.

# 2. REPUBLIC OF SERBIA-THE NEEDS OF ECONOMY AND THE STATE IN THE AREA OF WASTE MANAGEMENT

#### 2.1 ECONOMY

Based on the estimate of the Republic Institute for Statistics, the economic activity in Serbia is measured by the slow rate growth of the gross national product in the third quartal of 2018, as compared to the same period last year, and it equals 3,7%. National Bank of Serbia has made a revision of the envisaged growth rate at 4.0%, as compared to the initial projection of 3.5% (estimate of the Ministry of Finace for this year is 4.2%). Observed by activities, in the second quartal of 2018, the most significant growth rates have been seen in the construction sector (22.9%), agriculture, forestry and wood industry (14,8%), and infomation and communication sector (5.9%). Based on the latest preliminary results of the calculation, economic activity in 2017 has practically insreased for 2.0%.

Positive expectations in regard to acceleration of growth in Serbia are shared by the International Monetary Fund, as well as the other international financial institutions. It is expected that the growth rate of economy in Serbia in the following mid-term should be above the global average (3.8% -the growth rate of world economy in 2018, according to the projections of the "Bloomberg" company). In the period to come, the economic activity in Serbia will depend upon the needs of the countries which are the main foreign-trade partners, members of the EU, investments and the surplus solvency which will overflow to the national market, the cost of





energy products, maintenance of the macro-economic stability of the country, continuation of secondary reforms, and the success in the process of Euro-integrations.

The agencies for the assessment of credit rating have reacted to positive macro-economic trends, which have improved the image of Serbia during 2017. Standard and Poor's has increased the credit rating to "BB", with stable chances, which has been done as well by the Fitch Ratings agency. Moody's has also increased the credit rating to "Ba3", with stable prospects. Herewith, Serbia has made itself closer to the investment level of credit rating in view of enabling realization in the mid-term period. Agencies state that the base for further improvement of credit rating is the maintenance of macro-economic stability and the results of fiscal consolidation, structural reform (public institutions, tax administration, education, health care), as well as the continuation of the process of Euro-integrations.

All the above mentioned areas share the same legislative regulations, demanding responsible attitude towards generated waste and its structure, disposal, and flow management.

On the other hand, economy of the developed European countries is getting further away from the model of linear economy based on the principle *take-make-dispose*. The linear model in the Republic of Serbia was used during the expansive economy growth, when the use of resources was not controlled, the consumption of energy per product was high, and the impact on environment was not taken into consideration nor measured. That is how great quantities of waste, which was not properly treated or disposed of, were generated. Hard decisions and investments in environment were postponed for some other times, while the preassure on the environment grew with high quantities of historical waste which was left in local communities and firms that went bankrupt. As a result of long-lasting business based on linear economy, Serbia today has 3.500 wild landfills and only 8 sanitary regional landfills. Only 5-7% of waste is recycled, while the material, with a value of 50 million euros, is disposed of anually at more than 150 non-sanitary landfills.

In the near future, the cost of resources and energy will increase, as well as the needs of populationand their migration to the cities, while the climate ambient on the Western Balkans will deteriorate, as an area of medium high risk. The Republic of Serbia must be ready for this and must prepare an answer for the future.





# 2.2. STATE IN THE AREA OF WASTE MANAGEMENT IN THE REPUBLIC OF SERBIA

In view of reducing the impact on planet Earth, famine eradication and securing prosperity, New Agenda of Sustainable Development adopted in September 2015 by the United Nations (UN) defines the following 17 goals for sustainable development:

The Action plan for Environment was adopted by the European Parliament and the European Union Commission in November 2013 and it encompasses the period up to 2020. According to the latest program, a special attention is paid to natural assets protection, encouragement of resource efficient and low-carbon growth, innovations, insurance of health, and benefit of the humanity- taking care of natural limits of the planet Earth.

The program recognizes three priority areas:

### First priority area -development of resource effective and low-carbon economy- refers to:

- The total administration of climate and energy package of measures in view of achieving 20-20-20 goals and the treaty on further steps for climate change policy after 2020. This practically means that by 2020, the emission of CO<sub>2</sub> should be reduced for 20% (as compared to 1990), the share of renewable energy resources in the total energy consumption should be increased for 20% and the energy efficiency should rise for 20%.
- Significant improvement of product performances in regard to the environment, taking into account the entire life cycle of products;
- Reduction of impact on the environment based on consumption, which implies the
  discontinuation of food waste and the usage of biomass in a sustainable way.
   Special attention is paid to transformation of waste into a resource, with a greater accent on
  prevention, reuse and recycle, and gradual abandoning of concepts of waste disposal on landfills.

Precondition for sustainable *circular* economy is an efficient use of resources and establishment of indicators and goals which can be followed, measured and improved. Benefits from implementation of resource efficient economy are visible in many sectors. Perhaps, they are most visible in case of application of technologies for environmental protection or providing ecological services- an area which envisages increase in employment for 3%. Global market of





environmental protection industry (eco-industry) is currently estimated at thousands of billions of euros, and it is envisaged that its worth will be doubled in the next 10 years.

**Second priority area-Human health and benefit**- pollution of air and water, extensive noise and use of toxic chemicals. According to the *World Health Organization (WHO)*, factors which have an impact on the environment are responsible for about 20% of mortality in Europe. Although there are already very high standards for the quality of air in Europe, still in many cities pollution crosses the allowed limits.

**Third priority area - "natural assets"-** that is, phenomena in nature such as natural protection from floods, natural regulation of climate we live in, and reproduction of plants.

One of the important factors of success is the integration of all the previously mentioned requirements into national, regional, and global policy of agriculture, traffic, industry, energetics, services, etc.

**Food industry** is one of the most significant industries in Europe in which operate over 310.000 companies that employ over 4 million of people. At the same time, this is one of the industries which generate the greatest amount of waste and achieve high consumption of water and electrical energy, especially during processing and cooling procedures.

**Industry of building materials** also encompasses a wide range of different products, during whose manufacturing process it can come to significant pollution of the environment if acted against the requirements of regulations prescribed by the laws and procedures.

If the **sector of energetics is added** (in particular the pollution caused by thermo-energetic plants and mines), **other industries** (chemical, metal, mining, pharmaceutical, etc.), and **traffic** (in particular road traffic in big cities, aero transport, naval transport)-we come to crucial sectors which should be given greatest attention to from the aspect of environmental protection.

**Sector of services,** and tourism in particular in which the greatest accent is on sustainable tourism is linked with the production of local, organic food, sustainable transport (e-transport), saving of energy and water, conservation of nature, flora and fauna.

In all of these sectors, implementation of environmental protection measures and adequate standards can immediately bring to an improvement in business and have a significant impact on population and their quality of life. Actions carried out in such sectors most frequently focus on: cleaner production, management of waste waters, minimization of waste, recycling and reuse of





materials, as well as methods which contribute to a more efficient use of natural resources, energy efficiency and better use of alternative sources of energy. National Strategy for Approximation in the area of environment envisages that there will not be a transitional period left for harmonization of certain segments of recycling at the end of negotiations for accession. According to the Strategy for Approximation of Serbia in the area of environment, in the period of adjustment to the EU standards, Serbia should establish organized collection of waste for more than 90 % of population by 2020, keep issuing permits to the waste management plants by 2014, and achieve the goals of the EU for reuse and recycling by 2025.

Law on Waste Management and Law on Packaging Waste as well as derived by-laws, prescribe European standards, that is the reduction of biodegradable waste at landfills for 25% by 2016, 50% by 2019, and 65% by 2026. The law prescribes that what is charged must be returned to the recycling industry.

#### 2.3. ECONOMIC ASPECTS AND SUSTAINABILITY

Through more efficient implementation of the existing regulations, many benefits for mankind could be realized. A study conducted by the European Commission in 2012 shows that with the consistent implementation of laws and regulations referring to the environment, 72 billon of euros would be saved per annum, the annual turnover in the area of waste management and recycling industry would be increased for 42 billons of euros, and 400.000 new working positions would be opened by 2020.

Along with the investment, innovations are needed in the area of new products, services and public policies. Burden of the environment must be compensated for with market mechanisms such as: much more systematic implementation of "the polluter pays" principle, removal of tax burdens from work to pollution, and expanding the market for including "ecological" products and services.

It is estimated that minimum 20% of the EU budget in the period 2014-2020 will be needed for the adjustment to climate change. Companies are also aware of the importance of the environment and see the need to measure the impact of their activities onto the environment. This takes place through different ways of informing the public (local communities, owners,





users) about non-financial types of business. Urban pollution as one of the problems of today is best seen in Europe, where more than 80% of population lives in big cities or their vicinity. Out of these reasons, citizens face similar problems: polluted air, high level of noise, emission of the green- house effect gases, water threats and waste generation. The answer to this question lies in joint action, cooperation and innovation encouragement. Most European cities should imply the principles of sustainability in urban planning and city development.

At this moment, 49 higher education institutions in Serbia, that is 23 faculties and 26 colleges with courses in the area of environmental protection and waste management are identified, which is 19% of all faculties, that is 46% of all colleges. Quality of the study programs is questionable since the aims and outcomes analysis clearly shows the lack of systematic approach and solutions.

Improvement of the study programs implies innovations incontent through introduction of a greater number of mandatory and elective courses which will enable education of a higher number of experts competent to give their contribution to the negative state in the area of waste management. Curricula and syllabi of new elective courses should be filled with content referring to environmental protection and waste management. Also, the number of study programs which are directly related to waste management at undergraduate and master studies, as well as at the already existing specialist studies should be increased. Inclusion of master vocational studies is a positive step in this direction since it makes conditions for solving problems related to waste management and environmental protection, in line with the National Strategy for Waste Management and the Chapter 27 for accession to the EU.

#### 3. SUSTAINABILITY OF WAMPPP RESULTS

General and sepecific objectives of the WamPPP project are realized through 31 activity. Through one preparational, two developmental and one imlementation project over the three - year period, results that require serious analysis and sustainability plan, have been achieved.

Study programs have been accredited in line with the Law on Higher Education, its goals, principles, academic freedoms, autonomy and other provisions defined by the articles 1 to 8 of the Law, Strategy for Development of Education in Serbia by 2020, as well as other legal acts.





Such study programs aim to train students to do the jobs which refer to waste management, sustainable development, monitoring and environmental portection through the use of new technologies.

General objectives of the accredited programs are directed towards student mastering of the needed knowledge and skills in the area of monitoring of the state of environmental protection, waste management, analysis and understanding of problems in the area of environmental protection and waste management; application of methods and tools for solving such problems; assessment of complex ecological, social and economic interactions in sustainable management of the environment and waste management in particular; critical approach and assessment of legal frameworks in the area of environmental protection and waste management; quality assurance of vocational education and constant follow up and evaluation of the results of students and teachers, that is the study programs in general; sustainable technical and economic development of society, energy efficiency, ecological production and rational use of energy, management of waste flows, possibilities to use waste and the ways to dispose of it safely, as well as ways of prevention and reduction of harmful effects of different economic activities onto the environment.

Apart from that, the aims of the study program imply the training of professional staff that will be a carrier who brings, implements and controls the implementation of normative acts regulating the area of environmental protection, as well as training of students for team work at working positions in the area of environmental protection.

On the other hand, outcomes of the study programs imply that after mastering the content, the student is able to apply the principles of environmental protection; knows the properties of different types of waste materials; implements national and European legal regulations; collects and analyzes data obtained in the processes related to environmental protection; suggests measures for improvement of procedures in environmental protection, uses his/ her knowledge in a professional way, and participates in multi-disciplinary projects in the area of ecological engineering. Sustainability of the WamPPP project results is based on the following principles (fig.1)

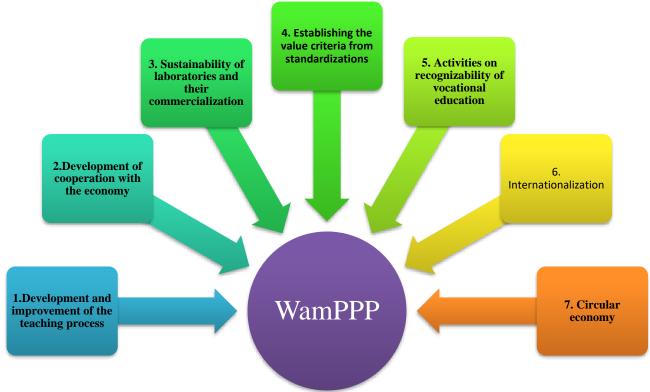


Figure 1, Elements of the WamPPP project sustainability

Efficient realization of the teaching process is the key element to operation. The condition for that is, in the first place, a well- designed curriculum, then well-prepared aims and outcomes of the study program, well- prepared aims and outcomes of the courses, and finally the staff that will carry out the teaching process in a quality way. For a study program to realize the set aims and outcomes, it is needed to ensure the development of the teaching staff which always has to be available to students, f2f or via all the available means for online communication.

Competence of the teaching staff is a precondition for successful operation. Therefore, in line with the possibilities, it would be recommendable to hire younger persons to the position of teaching assitants or fellow-workers.

Functionality of the teaching process is a precondition for achivement of the set aims and outcomes, and it implies making the conditions for a professional relationship towards the teaching process on the part of the individual, which reflects in full implementation of plans and programmes, harmonized criteria for assessment and devotion to the gain of the proclaimed competences.





**Pedagogical work** of the teaching staff should be given special attention to, so student evaluation qusetionnaires play an important role in implementation of the quality policy. It should not be a decisive factor, but rather it should be combined with the realistic results of student effort that will manifest through their practical knowledge.

*Final, specialist and master papers* are the highlight of students' work and creativity. Creativity of the teaching staff, modern professional literature, modern research and professional results in this area, state-of-the-art equipment are altogether a good precondition for quality papers whose results should be applicable in the economy and should represent the base for further development. It is necessary to emphaize here a special contribution of the members of the Commission for preparation of master papers who come from the line of industry.

Application of new technologies in the teaching process. Taking into account the position on the market and the expectations of the environment, our application of new technologies in the teaching process will enable the development of tudent digital and entreprenurial competences apart from the professional ones. Modular concept of the ICT platform enables the upgrading and development in different directions. Simulation of the production processes in real time, development and application of sensors, and application of IT as an obligatory part of the teaching process, will enable competativeness of the accredited study programmes and their leadership position.

Efficiency and sustainability of WamPPP results imply a developed system for monitoring of graduate student advancement. As one of the reliable tools for realization of this element is the establishment of **Alumni service with data on all graduate students** which has the possibility to network them, help them exchange their experience and put accent on development of their multidisciplinary competences.

Established laboratories are a good base for development of practical skills and knowledge in students. Modern equipment, trained staff and intrest of the economy in laboratory resources are a good foundation. In the next period, it is necessary to accede the process of laboratory accreditations. Accreditation of laboratories is used all around the world as a means for varifying





their technical competence for carrying out certain types of research/calibration. This way, the vary act of obtaining a certificate on accreditation of the laboratory will give a confirmation to the reliability of research/calibration, which will, in the long run, significantly improve the position of the laboratory on the market and thereby the position of the institution itself. Also, it is necessary to put efforts and create conditions to make the laboratory open, internationally recognizable and as such, one of the important factors in the process of internationalization. Finnally, five laboratories which represent one of the main results of the WamPPP project should be interconnected and should form a unique system.

Special attention should be paid to the realization of **professional practice.** Aware of the advantages that the ICT field has at this moment over the state of economy in other areas, the issue of professional practice can be solved effectively through establishing cooperation with the economy, that is, through involvement of students in projects which can eventually be commmercialized in line with the existing Law on Higher Education (article 57, paragraph 5). The existing teaching and professional databases of partners P1-P5 should be expanded with key economic factors in the region. This is one of the key issues for operation and sustainablility of the study programs along with further development and improvement of the laboratories. Possibility to involve students in the realization of commercial projects, apart from promotional aspects will contribute to the quality of operation, and will achieve a commercial effect. It is reasonable that not all students can meet the demands of the market, so it is necessary to carry out an adequate selection on the basis of good practice examples of the DELFT, KULeuven, IPP Porto and similar universities.

Such teams should be open to talented high school students form grammar schools and vocational high schools, as well as to their teachers who can show initiative and express willingness to make further progress. Selection of and work with such individuals is a warranty for long-lasting sustainability of the accredited study programs and commercialization of laboratories.

This means that a base of talented high school students should be formed within laboratories, that the progress of such students should be monitored and that they should be involved in certain projects and teaching activities of partners P1-P5 under strictly defined conditions. Apart from





this, with such an approach, a step would be taken towards challenges which are brought into the system of higher education by including general matriculation in it.

Good selection of students is a precondition for the next step which is the implementation of the attained and creation of new results in the area of waste management through RDI, which would connect partners P1-P5; **companies and future students**, on the basis of examples of good practice, like the one of the Spanish company DEMOLA. LTD. **Through establishing firm ties with the economy**, good selection of students, and adequate selection of the teaching staff, conditions will be made for laboratories to become destinations where requests for different technical solutions will be made by the industry. The gains of incorporating such a concept into the adequate course program content will be multifaceted. The quality of the teaching process will be significantly improved in terms of knowledge, skills, abilities and attitudes, cooperation with the industry will get another dimension as compared to the traditional one which is currently present on the market, whereas accredited study programs will gain their recognition. With such an approach, a door is opened for cooperation with other higher education institutions in Serbia, region and beyond, that is, new conditions are made for development of international cooperation in the field of innovative entrepreneurship. A possible step within this direction for development of laboratories is the establishment of *spin -off* **companies**.

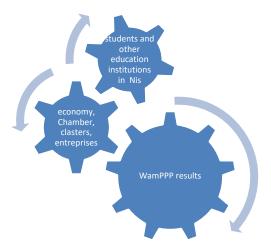


Figure 2. WamPPP results and RDI processes





The above mentioned is completely realistic and doable with adequate technical resources, which are necessary for operation, fast internet, space, literature...

Organization of round tables on modern topics in the area of management and giving professional lectures is one of the means to promote professional capacities of partners P1-P5 in this area. On the basis of todays' experience in organization of such type of gatherings, it is concluded that the market actually asks for such initiatives. Such meetings will be used for analysis of our program content as well as promotion of the competences of our graduate students.

With their professional and technical capacities, partners P1-P5 should keep their leading positions in professional education in the area, combining and implementing not only multidisciplinary but also interdisciplinary approaches to solving problems. To that effect, it is necessary to sign contracts on business and technical cooperation with **Chamber of Economy of Serbia and other** relevant stakeholders. Also, it is of high importance to cooperate with the Union of high schools. Support to their regional competitions is of great importance, taking into condideration the organizational problems which they are facing on the one hand, and promotion, and work with talented high school students on the other hand. This way, a support for creation of a base for talented high school students would be received and the inclusion of students in certain areas of partner P1-P5 activites would be made easier, as well as the continuation of their education at the accredited study programs at partner institutions P1-P5.

**Internationalization** takes a special place when it comes to the reform of higher education.

International participation of higher education institutions is assessed in the systems of quality assurance of signatory countries in a special way. This guarantees a high compatibility of the system for quality control of all Bologna countries with European standards and recommendations. In the last couple of years, numerous reports and conferences have focused on the issue of university internationalization, that is the internationalization of higher education. International orientation of the staff (teachers and fellow workers, administrative workers and the management) will make easier participation in international networks of higer education which comprise joint research and realization of innovation projects directed towards global challenges such as: sustainable development, climate change, renewal of energy sources, poverty, etc. Through new projects that await for us, the priority will be given to the ones with greater chances





for mobility of both teachers and students. This will help the exchange of experiences and increase the quality of the teaching process. Programs that support mobility will be announced on the page for international cooperation in due time and will be promoted. Most of such projects are meant to establish connections and cooperation in the area of education, youth and sport on the basis of funded projects in the period 2014 to 2020. Such opportunity should be exploited. Apart from the projects for international credit mobility, through Erazmus+ projects, a tought should be given to Erazmus Mundus joint master degree programs, which have emerged from the previous Erazmus Mundus program and which enable studying and obtaining master diplomas at European universities. Also, the possibility for taking part in IPA projects should not be neglected, bearing in mind the priorities which are proclaimed in the next call for projects.

Circular economy offers a new *product-waste-product* model. The main source of economic growth is greater reuse of materials from the products which have served their life time, and less frequent use of new resources. This area is a direction for further development in regard to sustainability of WamPPP project results. Competences gained in mastering of the program content at accredited study programs, upgraded with the needed competences in the area of circular economy, are a good base for development of entrepreneurial competences and start-up of production. It is estimated that by introducing circular economy in Serbia, 30.000 new working places will be opened, while the competitiveness of the economy can be increased, thus making our country a regional leader in development and investments.

# 4. SWOT ANALYSIS

Strenghts	Opportunities
Modern study programmes ++++	Creation of a data base for the talented ++
Application of modern technologies in the	Engagement of experts from the economy
teaching process ++++	without employment ++++
Innovations ++	Engagement of students and election to the
Teaching staff ++++	position of demonstrators ++++
Economy environment ++	Start UP ++





Development of technology +++	Spin Off ++
Devotion to students and availability ++++	Development center ++
Transparency in work ++++	Introduction of modern technologies in the
Clearly stated destination towards achieving	teaching process ++++
the set goals within the mission and vision of	Preparation of practical final papers in
partners P1-P5 ++++	cooperation with the economy ++++
Professional practice	Development of cooperation with high
	schools which provide training for profiles in
	the area of environmental protection ++++
	Elements of RDI ++
Waeknesses	Threats
	Economic situation in the country ++++

#### **4.CONCLUSION:**

General conclusion which can be made on the basis of the achieved results within a three-year period for implementation of the WamPPP project gives a good foundation for sustainabilty of its results in the future. If the achieved results are analyzed in detail as compared to the set indicators, it is clearly seen what the direction for further development is. The fact that the Chaper 27 is still not opened for negotiations is a clear sign that the Republic of Serbia needs a lof of work to do and a lot of effort s to make in order to establish the framework and standards for progress in the area of environmental protection and waste management. Good level of harmonization with the legal heritage of the EU in this area is a good foundation, but as said earlier, it is necessary to invest in further efforts to improve the implementation in this sector, which is still in its early phase. The need to make a new revised strategy for waste management is clearly stated through the results of the preparatory WP1. Six reports made within this work package clearly point to the problems that the Republic of Serbia is facing within Chapter 27, whether it be from the standpoint of legislature, that is technical or technological accomplishment, or the awareness of an ordinary man to the importance of active and responsible behaviour as far as these serious issues are concerned. The lack of adequate professional literature, creative program environment, accredited laboratories, active face to face and social network campaigns, as well as networking of economy stakeholders to unique platforms are the key results of WamPPP (WP2. WP3. WP 4 WP5), which have their application in each segment of our lives, in each public or private institution, and in each household. Future transfer stations for selection and transfer of waste, recycling centers, as well as energy plants definitely require adequate professional staff that is capable of responding to technical and technological needs and challenges in the area.





#### **LITERATURE**

- [1] http://www.pks.rs/PrivredaSrbije.aspx?id=23
- [2]. To Make the World a Better Place: Agenda 2030 for Sustainable Development http://www.un.org/ga/search/view\_doc.asp?symbol=A/ RES/70/1&Lang=E A/RES/69/313.
- [3] UN Group for Development (2015), Including the Agenda 2030 for Sustainable Development: Guidelines for Local Teams UN. http://www.undp.org/content/dam/undp/library/MDG/Post2015-SDG/UNDP-SDG-UNDG-Reference-Guide-UNCTs-2015.pdf
- [4] www.wamppp.com

### Used internet links

- [5] Work on the Goals of Sustainable Development: Guideline for the Interested Parties.
- http://unsdsn.org/wp-content/uploads/2015/12/151211-getting-started-guide-FINALPDF
- [6] Portal of knowledge of the UN on sustainable development. https://sustainabledevelopment.un.org/frameworks sustainabledevelopment.un.org/owg.html
- [7] Information on global agreement of the UN on the Aims of Sustainable Development. https://www.unglobalcompact.org/library/1401 •
- [8] The world we want https://www.worldwewant2030.org/
- [9] Cirkularna ekonomija kao šansa za razvoj Srbije https://www.osce.org/sr/serbia/292311?download=true