Nerma Saračević, PhD student

J.J.STROSSMAYER University in Osijek, Croatia Doctoral program in Entrepreneurship and Innovativeness Phone: + 387(0)61 133 514 Fax: +387(0)32 650 704 E-mail address: nermasa@bih.net.ba

Ivana Bekić, PhD student

J.J.STROSSMAYER University in Osijek, Croatia Doctoral program in Entrepreneurship and Innovativeness Phone:+(0) 91 122 2501 Fax: +385(0)1 38 82 813 E-mail address: ivana.bekic@gmail.com

Tihana Kraljić, PhD student

University J.J. Strossmayer in Osijek Croatia Doctoral program in Entrepreneurship and Innovativeness Phone: +385(0)48 691 136 E-mail address: tihana.kraljic@kc.t-com.hr

FINANCING THE ENTREPRENEURIAL ECO-PROJECT RECYCLING OF WASTE OILS

FINANCIRANJE PODUZETNIČKOG EKOLOŠKOG PROJEKTA RECIKLAŽA OTPADNIH ULJA

ABSTRACT

The purpose of this paper is to emphasise the importance of investments in ecological projects, that is, in the environmental protection and processing of waste materials which cause pollution. With the accession of Croatia in the European Union, environmental protection policies gained further significance. A swift increase in the number of inhabitants worldwide leads to faster depletion of natural resources, so the protection and restoration of natural resources, which are limited, are necessary.

Based on the aim of the paper, we used (1) qualitative research method – analysis of the secondary data base (2) financial projection of project feasibility.

The results of abovementioned research point to the fact that investments in ecological projects have multiple beneficial effects in the sense of: a) environmental protection, b) employment, c) implementation of technological innovation, d) stimulus to growing entrepreneurial business.

This paper can prompt new entrepreneurs to enter the field of ecology which has the support of the Croatian Bank for Reconstruction and Development (HBOR) via various programmes (the Programme for preparation of renewable energy projects and the Programme on funding environmental protection projects, projects on energy efficiency and renewable sources of energy) and to cooperate with foreign participants through Funds for environmental protection, for example, the Fond Green for Growth for South-Eastern Europe.

Key words: ecology, processing waste materials, restoration of natural resources, financial projection of ecological projects

SAŽETAK

Cilj ovog rada je ukazati na važnost ulaganja u projekte ekologije tj. zaštitu okoliša i preradu otpadnih materijala koji zagađuju okoliš. Ulaskom Hrvatske u Evropsku Uniju (EU) politika zaštite okoliša je dodatno dobila na važnosti. Brz porast broja stanovnika u svijetu vodi do ubrzanog trošenja prirodnih resursa te je neophodna zaštita i obnavljanje prirodnih resursa koji su ograničeni.

Imajući u vidu cilj ovog rada korištena je (1) kvalitativna metoda istraživanja- analiza sekundarne baze podataka (2) financijska projekcija isplativosti projekta.

Rezultati navedenih istraživanja ukazuju da ulaganje u ekološke projekte ima višestruke pozitivne efekte: a) zaštitu okoliša; b) zapošljavanje; c)primjenu tenoloških inovacija; d)poticaj napredovanja rastućeg poduzetničkog poduzeća.

Ovaj rad može potaknuti ulazak novih poduzetnika u oblast ekologije koja je podržana od strane Hrvatske banke za obnovu i razvitak(HBOR) putem različitih programa (Program za pripremu projekata obnovljivih izvora energije i Program kreditiranja projekata zaštite okoliša, energetske efikasnosti i obnovljivih izvora energije), te koopercija s inozemnim dionicima kroz Fondove zaštite okoliša kao npr Fond Green for Growth za jugoistočnu Europu (GGF).

Ključne riječi: ekologija, prerada otpadnih materijala, obnova prirodnih resursa, financijska projekcija ekološkog projekta

1. Small and Medium Entrepreneurshipin Croatia

Small and medium enterprises form 99.5% of the total number of registered businesses in Croatia and those have a significant share of GDP. In 2010 this share was 51.6% (CEPOR, 2011, p.14). From 2001 to 2010 their part in the Croatian economy grew by 71%. In 2011, the contibution of SMEs in total GDP was 50.2%, presenting a decrease of 1.8% compared to 2010 (due to the reduction of GDP in small enterprises).(CEPOR, 2013, p.13)

As a result of adverse conditions in the environment and generaldeterioration in economy, during 2011, there was a decline in the number of business subjects, but the structure of the economy due to the size of the company remained unchanged. The largest decline was in the category of medium-sized enterprises (6.3%), then small firms (5.7%). In the category of large companies the decline was 4.3%. (CEPOR, 2012, p.13).

The criteria for classifying subjects in the sector of small and medium enterprises are defined in the Accounting Act and the Act on Promotion of Small Business (CEPOR, 2011, p.11).

Table I Cillella foi dei	Table 1 Criteria for defining the company according to the Accounting Act			
Criteria	Total assets/000 HRK	Total Income/000 HRK	Average No of employees	
Small	32.500	65.000		50
Medium	130.000	260.000		250
Large	130.000 ∧	1 260.000 ∧ 260.000		1∕250

 Table 1 Criteria for defining the company according to the Accounting Act

Source: CEPOR, 2013

1 10111011011			
Criteria	Fixed Assets/000 EUR	Total Income/000 EUR	Average No employees
Micro	<2.000	<2.000	< 10
Small	<10.000	<10.000	<50
Medium	10.000 - 43.000	10.000-50.000	50 - 250
Large	∕43.000	≥ 50.000	1250 ₽ 250

Table 2 Criteria for defining the Economy subjects according to the Act of Small Business Promotion

Source: CEPOR, 2013

This is a segment which is extremely important for employment, but also a sector that is burdened with above-average risk. For example, in the United States less than 30% of startups operate more than 10 years after its establishment (HUB, 2010, p.2).In Croatia, small and medium enterprises are the ones affected to the fullest extent by the influence of underground economy, where labor costs are a special problem. The above-mentioned problem, in the opinion of the leading Croatian bankers, can be solved only by increasing income tax allowances (HUB, 2010).Furthermore, SMEs are more vulnerable and sensitive to the present bad regulation and other difficulties with the institutional environment (e.g. corruption). They face higher interest rates and a short list of possibilities for financing than larger companies.Because of that they are a subject to major growth restrictions comparing to large enterprises (Bartlett and Bukvič, 2001 cited in HUB, 2010,p.2).Productivity of SME is frequently lower than productivity in large companies due to the economy of scale, and becuse of the mentioed restrictions there are doubts regarding their innovativeness. (Shane, 2008 cited in HUB, 2010, p.2).

2. The Role of Mega Trends in the Development of Small and Medium Entrepreneurship

In the last 50 years, hyper production exists in all areas and levels of society, through the rapid development of economics, engineering, technology and enormous population growth. In the last 35 years the world population has doubled. Now, the world holds more than 6.7 billion people with an average of 50 people per square kilometer of land area. The reason for this lies in technological progress and the possibility of creating the necessary conditions needed for life to such a large population, such as food, clothing, housing conditions, etc. (Delač,2010, p.16).

However, the rapid increase in the population in the world is followed by the rapid exploitation of natural resources. Statistical indicators point to a worrying fact which says that in ten years, the number of key resources which people need to produce energy will be nearly exhausted. Some rare metals are already running out, and oil and gas resources have been consumed more than half. Due to pollution and over-fishing world's fish stocks are seriously threatened. Deforestation due to urbanization and expansion of living space leads to soilerosion (Delač, 2010, p.16).

Therefore, there is a large population in the world that is constantly growing and there are scarce and polluted natural resources to which the community is disposed. Unenviable position indicates the need for the development of environmental projects that will synthesize all the elements of the progress of human civilization and take advantage of the positive aspects of overproduction, which we are facing.

Following the observed global trends, in Croatia, it is becoming increasingly important to receive the investments that strengthen competitiveness through energy savings, as well as investments in environmentally sustainable market of renewable energy sources. Return on investment in these activities is multiple: it reduces the share of imported energy, strengthens

the independence of the energy market and also promotes environmental protection (HBOR, 2012).

3. Enviromental Projects within the Small and Medium Entrepreneurship

With the government stimulus programs and subsidized credit lines, primary sources of financial support for the development of small and medium-sized enterprises in Croatia are (CEPOR, 2011, p.31):

- The banking sector;

- Credit Union;
- Venture capital funds;

- Informal forms of financing (business angels)

Different sources of financing SME sector significantly support and facilitate the implementation of environmental projects. Thus, the Croatian Bank for Reconstruction and Development is the forefront of funding through different programs (Program for the preparation of renewable energy projects and Loan Programme for environmental projects, energy efficiency and renewable energy), and cooperation with foreign stakeholders through EU pre-accession programs - IPA (HBOR, 2012).

In accordance with the Law on Fund for Environmental Protection and Energy Efficiency, in 2003, the Fund for environmental protection and energy efficiency as well as non-budgetary legal entity with public authority was established. The aim of the Fund is to provide additional resources to finance activities in the areas of environmental protection and energy efficiency.

The resources to finance the activities of the Fund are usually provided from revenues from environmental polluters, and the selection of projects for funding is made on the basis of public tenders published by the Fund (www.fzoeu.hr). In the period from 2004 to 2011 out of 1345 projects and programs, with a total value of more thanHRK 2 billion, more than 491 mil. were approved.On the basis of FZOEU investments in renewable energy resources projects and energy efficiency projects which were realized by the end of 2010, significant annual savings in energy and money were achieved: 363 GWh / year (1,306 PJ / year); HRK 250 mil / year (EUR 33.5 million / year); 480 tons of CO2 per year (FZOUE, 2012).

FZOEU co-financed the implementation of environmental projects by loan funds to HRK 1.4 million (187,000 EUR) and not more than 40% of eligible costs with interest rate of 0% for a period of 7 years (2 years of grace period + repaymentperiod of 5 years) with the necessary instruments of collateral. Interest subsidies (non-refundable) allows reduction of the contractual interest rate by 2 percentage points to HRK 800,000 (107,000 EUR); subsidies for the development of studies to HRK 200,000 (26,500 EUR) and not more than 40% of eligible costs (FZOEU, 2012).

The funds for these types of support are often used over the IPA program and the HBOR.

By Croatian accession to the EU,the available funds from the Structural and Cohesion Funds for the financial period 2014-2020 will amount to about EUR 8 billion (Structural Funds, 2014). The programming documents will be made on the principle of partnership, and include all relevant institutions to cover and identify needs and development priorities of Croatia. The funds will be divided into seven (7) thematic objectives/working groups, and the Ministry of Entrepreneurship and Crafts is responsible for thematic objectives intended for the small and medium enterprises to strengthen the competitiveness of smalland medium-sized enterprises, the agricultural sector and the fisheries and aquaculture. Ministry of Nature and Environment is responsible for activities in environmental projects (Structural Funds, 2014).

Within the 3rd working group, 6th goal is "Protecting the environment and promoting resource efficiency", the key focus is(Structural Funds, 2014).:

• Resolving the need for significant investment in the waste sector;

• Resolving the need for significant investments in the water sector;

• Protection, promotion and development of cultural heritage;

• Conserving of biodiversity, soil protection and promotion of ecosystem services, including Natura 2000 sites and green infrastructure;

• Action to improve urban environment, including regeneration of abandoned or unused land and reduce air pollution.

4.Business Projects Reciclyng of Waste Oil

One of the major sources of pollution are used industrial oils. Contamination by waste oils, a current issue,which is especially expressed when the owners (cars, trucks, agricultural machinery, etc.) themselves uncontrollably change and dispose used oil (Čizmić etc.., 2004). Concentration of oil in water of only 1-2 mg per liter, makes the water unsafe and harmful to health. Also, used oils contain additives based on sulfur, nitrogen, phosphorus and heavy metals and their combustion gases are very harmful to human health (Čizmić, et al., 2004, P.280).

Waste oils are classified as hazardous waste and their disposal is of great importance to environmental protection. However, in the EU, about 13%, and in America, about 32% of waste oils end up in more or less modified form in the environment (Čizmić, et al., 2004, P.280). There are great opportunities to recycle waste oil and therefore it is essentially recovered as much as possible to preserve the environment and optimize consumption of natural resources (Environmental Protection Agency, 2010, p.14).

European Union adopted the Directive on waste oils which should establish a system for the collection and proper disposal of waste oils. This directive has been transposed into Croatian legislation through Regulation on Waste Oil Management (NN 124/06), which prescribes the way of managing and introducing fees for waste oils (www.rudarstvo.com, 2012). The objective of the Regulations is to establish a system of collecting waste oil for their recovery and/or disposal, and to protect the environment and public health. Managing of waste oil is a set of measures that include the collection of waste oil for material recovery or use for energy purposes or otherwise disposal when they can not be recovered. Regulation on the Waste Oils Management (2006), used oil is defined as any mineral and synthetic lubricants, industrial, insulating (oil used in power systems) and/or thermal oil (oil that is used in heating systems and cooling systems), especially motor, machine oil from gearboxes, mineral and synthetic lubricating oil, heat transfer oil for turbines and hydraulic oil, apart from oil which is admixed with gasoline two-stroke internal combustion engine.

Recovery of oil means the procedures to obtain the new products, or allows re-use, or the use of waste oil for energy purposes. Recovery of oil, according to the Regulation on Waste Oil Management, include the procedures for *material recovery* and *thermal processing* or the use of waste oil for energy purposes. (Regulation on Waste Oil Management, 2006).

Material recycling is a process, which creates a new product or oil that can be reused. This process refers to the removal of impurities and additives from used oil to give the base oil which can be used as raw material for the production of fresh lubricating oil (Regulation on Waste Oil Management, 2006). Thermal processing implies the exploitation of waste oil as fuel in plants with installed capacity more than 3 MW (Regulation on Waste Oil Management, 2006). Material recycling of waste oil has an advantage over other methods of recovery. In case the waste oil is not recycled by material recovery than thermal recovery, the procedure must be carried out according to established regulations in the energy and manufacturing plants with installed power of 3MW and more. Also, the thermal processing of waste oils or usage of waste oils as fuel must be done in a way that complies with the emission limit values prescribedby a special regulation (Regulation on Waste Oil Management, 2006).

Oilrecycling is a set of activities which enable the reuse of waste materials. Recycling is applied on the basis of three principles of the three letters R (RRR): Reduce; Reuse; Recycle (Pajalić, 2012, p.11).

TYPE OF WASTE	PROCEDURE	OIL PRODUCTS
A bit contaminated waste oil	Purification for reuse as a lubricant	Hydraulic oils, gear oils, machining oils
Motor oil and other	Re- refining	Base oil
All types of oil	Thermal cracking	Diesel fuel, fuel oil
Mixed waste	Gasification	Synthetic gas
Heavily contaminated and degraded oil	Reprocessing	Fuel for marine engines, for heating plants, for cement plants, asphalt mixing plants

Table 3	Recycling	of waste	lubricating	oils	and their	usage
1 abic 5	receyening	or waste	ruomeaning	ons	and then	usage

Source: VELEUČILIŠTE U RIJECI, SPECIJALISTIČKI DIPLOMSKI STRUČNI STUDIJ, ODJEL SIGURNOSTI NA RADU, 2012

During the production or importing and delivery of lubricating oil on the market, the manufacturer or importer shall pay a fee for disposal of waste lubricating oil. So in 2009, FZOEU was paid by manufacturers and importers of fresh lubricating oil a fee of HRK 38 475 677.50, while the FZOEU paid HRK 10,187,018.92 fees to licensed collecting of waste oils (Environmental Protection Agency, 2010, p.4).

According to data from FZOEU, in the year 2009, it produced and imported or placed on the Croatian market 26.734.967,58 L (24.061,47 t) of fresh lubricating oil. Of this amount is expected emergence of 13.367.483,79 L (12 030,74 t) of waste lubricating oil. It has collected on7.538. 299,98 L (6.784,47 t) of waste lubricating oil, and 2.383.413,35 (2.145.07 t) of waste cooking oil. Recovered was 7.602.773, 13 L (6 842.50 t) of waste lubricating oil and 1 674.717.00 L (1 507.25 t) of waste cooking oil (Environmental Protection Agency, 2010). According to the data from FZOEU for the 2010 on the Croatian market was placed 22.764 448,45 L (20.488.00 t) of fresh lubricating oil. It is expected that 11.382.224,23 L (10.244.00 t) of waste lubricating oil will be collected. We collected 7377 561.08 L (6 639.81 t) of waste lubricating oil, and recovered 7261 362.16 L (6 535.23 t) (Environmental Protection Agency, 2011, p.3).

From the above-mentioned it is evident that in 2010 slightly less waste lubricating oil (2.13%) was collected, compared to 2009. However, in 2010, fresh lubricating oils wereplaced on the market less, indicating an upward trend of collected quantities of waste lubricating oil in relation to the expected quantity produced waste lubricating oil (collected 65% of the estimated quantities of produced waste lubricating oil). The collected quantity of waste lubricating oil was given toauthorized operators who recycled it. Out of total amount ofrecycled waste lubricating oil, more than 90% were thermically processed by five companies. (Environmental Protection Agency, 2011, p.3).

The right to perform the activity of waste oils shall be acquired pursuant to Waste Management Permits obtained in accordance with theWaste Law. Ministry of Environmental Protection, Spatial Planning and Construction, awarded the companies concessions for the collection, recovery and recycling of waste oils and lubricants. Then, the company concessionaires signed a contract with the Fund for Environmental Protection and Energy Efficiency, which defines the conditions for activity of collecting and recycling waste oils and lubricants (Regulation on Waste Oil Management, 2006).

National Waste Management Strategy adopted by the Croatian Parliament in 2005 under the Waste Act, provided for the establishment of centers for the management of hazardous waste, which would enable the reception of of waste oils. The basic aim of the centers is to provide recovery 90% by average weight of waste oil collected during the year. Adoption of the

Strategy and Plan of Waste Management Strategy is of vital importance for Croatia, because it triggered changes that would gradually solve existing environmental problems and direct the RH towards sustainable waste management harmonized with EU standards (Kalambura, 2006, pp.267-268).

"Waste oils are hazardous industrial waste," according to the the Waste Law, which categorized all participants into three groups, namely: the producer of hazardous waste (collects, sorts and transports) and processor wastes (temporarily stored and processed hazardous waste). The provisions of the law specifically bind the manufacturer of waste oil (consumer, customer lubricant) on the care of waste oils, in terms of controlled waste, which means separate collection by type, all the customers represent a huge burden financially. Therefore, theusers expect assistance in removing spent lubricant (Čizmić, et al., 2004, pp.282-283).

In order to improve the overall process, the goal is to inform the manufacturer of lubricantsabout thewaste management, and furtheron, by selecting collectors and processors of waste to comply with the obligations of all the participants in the supply chain of hazardous waste disposal. If getting information about a used lubricant, is carried out by a manufacturer of lubricants, it represents a special quality of service, because the lubricant manufacturer knows what the market offers and gives the best advice for dealing with the used lubricant (Čizmić, 2008,pp.156-160).

These activities are the characteristics of socially responsible businesses. The concept and practice of corporate social responsibility are related to the whole range of their work, and in all the relations that they establish. Corporate social responsibility can improve sales, or business, develop human resources and build confidence in the company as a whole.

The consumers want products and services that meet their intended purpose, and have a good price, but at the same time they do not want companies that behave irresponsibly. No company can afford deficiencies in terms of complying with the legal provisions relating to the environment, occupational health and safety, human rights (Čizmić, 2008, p.154).

It is extremely important to see how corporate social responsibility is not only correct, but also useful for the job, regardless if these are small or large companies. Every company should be encouraged to develop seven areas of social responsibility: basic principles, mission and values, human resources, human rights, market, environment, community (Čizmić, 2008, p.155).

5. Business plan for entrepreneurial eco projectto enterprise "ECO SERVIS"

5.1.Name and business of the company

The company ECO SERVIS Ltd. was founded in 2002. It deals with the activities of collection, production and transport of secondary raw materials and waste materials.Collecting motor and hydraulic oils, grease, oil and petroleum products is done in special containers which are protected from a possible ignition source. The company performs the RECYCLING of the emulsionfor cooling plants with the following procedure:

- At the invitation of suppliers, dirty emulsion is transported in barrels and put on the stock within company boundaries on the the specified place;- ---- Processing of emulsions is done using the method of pretreatment in a device KLEENOIL where surface oil is removed;

- After pretreatment the obtained emulsion is pumped into the tank for processing;

- The process of refining generated recycled concentrate and water;

- The water is discharged into the public sewer system if its physical-chemical properties meet the requirements of the Regulations of limited values of dangeorus and harmful substances in industrial water, so it is not harmful to the environment; - The emulsion is sent for further burning in Austria where, currently, is the nearest factory for burning emulsion.

The Collecting of secondary raw materials is carried out by natural and legal persons. The suppliers are large industrial producers in the automotive industry, generally.

The activity of the company has the following adopted standards and licenses: - ISO Standard 14001:2004 issued by SGS;

- The permission for waste management and the disposal, issued by the Ministry of Planning, Transport and Communications No. 12-23-5412/10;

- An environmental permit No. 12-233002/10 issued by the Ministry of Planning, Transport and Communications and Environment;

- The Decision on water permit issued by the Agency for the Sava River Basin.

5.2. Managmentand Employees

The company employs 15 people.

Table 4 Calcula	tion of employee salarie	s EUR	
Total	102.400	15	505.600

5.3. Planningof Development the Enterprise

The company has recognized the importance of control and recycling of liquid waste planned purchase:

- Tanks for extraction of oily water from the supplier;

- Incineration plant for recycled concentrate;

- Laboratory for control after the cleaning process of the oil.

Sources and uses of capital

Table 5 The items resources-capital (own and other sources) EUR

		Amount	Structure in %
1	OWN FUNDS	300.000	38,69
I	A Investments of owner	200.000	25,79
H	B Other- grants for ecologyy	100.000	12,90
2	EXTERNAL CAPITAL	475.350	61,31
I	A Bank Loan	475.350	61,31
3	TOTAL CAPITAL	775.350	100

Table 6 The items of fixed and working capital EUR

	U		
		Amount	Structure in %
1	Fixed capital	624.000	80,48
2	Working capital	151.350	19,52
3	TOTAL CAPITAL	775.350	100,00

Table 7 The calculation of depreciation and the residual value EUR

TOTAL CAPITAL	DEPRECIATION	RESIDUAL VALUE
775.350	353.000	422.350

The calculation of depreciation is done on the basis of the estimated value of planned investment and the estimated useful life of buildings and equipment.

Table 8 Calculation of working capital EUR

Annual amount	Net working capital
873.600	151.350

The amount of working capital is calculated based on the relationship of the annual required funds and turnover ratio.Days of binding were determined based on the potential flow of funds through the business cycle of enterprises.

Table 9 Loan Repayment Plan

Loan Amount	475.000 EUR
Interest rate	7%
No of Annual payment	4
No of installments of loans	28
Year of beginning	
repayment	2
Date of taking of loan	15.09

The amount of the quarterly annuity is 21.620 EUR. The total amount of interest during the loan repayment is 130.010 EUR. Total amount of repayment and interest is 650.360 EUR.

Table 10 Projections of income during the laan repayment (EUR)

Types of Income	Sale of products	Sale of services	Commercial goods	Other Income	TOTAL
Amount	1.200.000	7.267.500	193.600	117.000	8.778.100

Income from product sales relates to the sale of collected secondary raw materials. Income from the sale of services relating to collection and transport of secondary raw materials; preparation for recycling; collecting waste oil, waste water and their processing in plants; goods transport services for third legal entities; laboratory services for third parties. Revenue from the sale of commercial goods refers to the goods that the client receives by compensation for its services.

 Table 11 The projection of expenses EUR (materials, energy, transport ,marketing, salaries, depreciation,loan)

TOTAL EXPENSES	5.565.617

Table 12 Projection of the income statement during the loan repayment (EUR)						
Total	Total	Total profit	Tax	Profit after	Required	Net profit
Income	expenses			tax	reserves	
7.847.500	5.588.437	3.189.663	637.933	2.551.731	224.822	2.326.908

6. Analysis of other financial indicators*

On the basis of the projections of the financial flows of the project, in the assessment of liquidity the following was found:

The project has an acceptable liquidity in negative net inflow was not shown in the year of investment. During the years of the planned operation, a positive balance of cash inflow is shown. The project shows the liquidity in the investment phase, and later on in doing businessachieves an increase in the financial strength of the investor.

The projection of cash flow shows the positive effects of net receipts in the first year after the investment. The reason are already diversified activities of the presented enterprise ECO-SERVIS Ltd. This project is an upgrade of the existing activities in accordance with the

requirements of the environment. Cumulative net inflows is positive in the second year after the investment. The period or term return of investment is the time it takes to get revenue from the project to cover all the costs of the investment. In case of the company ECO-SERVIs Ltd. ROIwas in the third year of the project, which is within the established project duation. This project demonstrated profitability and it is acceptable for investment. The discounted return period is 1.24188.

The internal rate of return indicates the maximum acceptable interest rate if the investment was solely from the loan proceeds.

In the above-mentioned example, the IRR = 48% which is a very high return, the reason for which is current monopoly position of clients in this sector and the possibility of price formation which the environment accepts. IRR is the discount rate at which NPV equals 0.

Net Present Value (NPV) is the sum of the net positive effects of the project from its economic flow, reduced to the present value, interest rate of 7% (IR from the conditions of the loan). These are integrated and absolute indicators for the assessment of economic profitability and acceptability of the project. To make the project acceptable to NPV must be higher than zero, which means that the positive effects of the project outweigh the cost of the investment. In the presented case, it is a highly acceptable project.

* For more information, contact the authors

7. Conclusion

The investment in ecological projects has multiple significance for Croatia. By accessing the EU, Croatia has been given the ability to access European funds for the improvement of environmental protection. The development and implementation of projects in this field leads to reduction of pollution, increase in the number of employees, increase in technological equipment of enterprises and increase in gross domestic product (GDP) of the country.

The justification of investment in the project is shown through the presented business plan. In the above mentioned study it can be concluded that there is a potential for the project and that the investment is acceptable to investors.

REFERENCES

Delač D., 2010. Microeconomics for entrepreneurs and managers. Zagreb: Grupa VERN d.o.o.

Regulation on Waste Oil Management 2006. (c.1-32), Zagreb: Ministry of environmental protection, physical planning and construction;

Pajalić, T., 2012. [seminar] May 2012 ed. Polytechnic of Rijeka: Specialist graduate study, Departmentof safetyat work.

CEPOR, 2011.Izvješće o malimisrednjimpoduzećima u Hrvatskoj - 2011. [pdf] Zagreb: SMEs and Entrepreneurship Policy Center. Available at: <http://www.cepor.hr/SME%20godisnjak_final.pdf>[Accessed 27 June 2012].

CEPOR, 2012.What makes Croatia a (non)entrepreneurial country?. [pdf] Zagreb: SMEs and Entrepreneurship Policy Center. Available at: < http://www.cepor.hr/GEM-brosura-2002-2011-eng-za-web.pdf> [Accessed 25 June 2012].

CEPOR, 2013.Izvješće o malim i srednjim poduzećima u Hrvatskoj [pdf] Zagreb. Availablehttp://www.cepor.hr/Izvjesce%200%20malim%20i%20srednjim%20poduzecima%2 02013_CEPOR.pdf [Accessed 8 April 2014]

Čizmić, V., Pančocha, D., Anić, T., Barišić, A., 2004.Disposal of used oil.Fuels and lubricants, [e-journal] 34 (5), pp. 279-287. Available through: Hrčak [Accessed 25 June 2012].

Čizmić, V., 2008.Environmental management system - a prerequisite for reducing environmental impact.Fuels and lubricants, [e-journal] 47 (2), pp. 153-161. Available through: Hrčak [Accessed 25 June 2012].

HUB, 2010.FINANCING OF SMALL AND MEDIUM ENTERPRISES IN CRISIS BETWEEN THE DESIRE AND OPPORTUNITIES. [pdf] Zagreb: Croatian banking association. Available at: http://www.hub.hr/Default.aspx?art=1952&sec=508 [Accessed 29 June 2012].

Kalambura, S., 2006. Waste Management Strategy and the role of the Environmental Protection and Energy Efficiency. Archives of Industrial Hygiene and Toxicology, [e-journal] 57 (3), pp. 267 – 274. Available through: Hrčak [Accessed 15 June 2012].

Environmental Protection Agency, 2011. Report on waste oils in 2010. [online] Available at: http://www.azo.hr/Izvjesca14 [Accessed 18 June 2012].

Environmental Protection Agency, 2010. Report on waste oils in 2009. [online] Available at: http://www.azo.hr/Izvjesca14 [Accessed 18 June 2012].

Fund for Environmental Protection and Energy Efficiency, 2012. [online] Available at:<http://www.fzoeu.hr/hrv/index.asp> [Accessed 25 June 2012].

HBOR, 2012. [online] Available at: http://www.hbor.hr/Default.aspx [Accessed 25 June 2012].

www.Rudarstvo.com, 2012. Waste oils. [online] Available at: <http://www.rudarstvo.com/Ekologija/Ulja.html> [Accessed 27 June 2012]. Structural Funds, 2014. [online] Available at: <http://www.strukturnifondovi.hr/strukturnifondovi 2014 2020>[Accessed 8 April 2014].