



### this issue

Environmental Cost Management **P.1**

SDGs and Municipalities **P.2**

E-reciklaža 2010 **P.3**



### Dr. Tatjana Stevanović

holds a full professor position at the Department of Accounting, Mathematics and Informatics, Faculty of Economics, University of Niš. She teaches courses on Special Accounting, Accounting Management, Cost Accounting and Financial Institutions Accounting at the undergraduate level of studies, as well as Strategic Management Accounting and Performance Management at master's level.

## ENVIRONMENTAL COST MANAGEMENT IN THE FUNCTION OF ENTERPRISE ENVIRONMENTAL PERFORMANCE IMPROVEMENT

The impact of business activities on the environment can be observed from the aspects of the area of impact (air, water, underground pollution), points of impact (drinking water, land and habitats for endangered species) and global locations (ocean, atmosphere, land). On the other hand, a number of contaminants, including those of a toxic nature, affects business activities. In this regard, a number of disciplines, accounting and non-accounting, are necessary to analyze the effects of energy and material use, waste disposal, environmental costs, insurance, penalties, as well as to make management decisions and compile accounting reports. Involving environmental policy in business policy requires the inclusion of a number of activities, such as capital investment budgeting and cost budgeting, measuring financial and non-financial performance, accounting control and cost accounting (Yakhou, Dorweiler, 2004).

Environmental accounting provides reports both for internal needs, generating environmental protection information relevant to pricing decisions, overhead cost control and capital investment budgeting, and for external needs, by disclosing information of interest to the public and the community. Environmental Management Accounting (EMA) is defined as the process of identifying, collecting, evaluating, analyzing, internal reporting and using information on material and energy flows, information on environmental costs and other information for making business and financial decisions on environmental protection. The EMA analyzes the environmental costs and financial benefits. The EMA provides information on the increase in capital and operating costs incurred due to the procurement of pollution control equipment, as well as costs related to the payment of environmental taxes. Also, possible environmental initiatives, related to, for example, compliance with incentive regulations, are included in the analysis and reporting (Stevanović et al., 2011).

Environmental Cost Accounting (ECA) has evolved over time as a significant part of Environmental Accounting. The importance of introducing environmental cost accounting is primarily reflected in the correct

determination of real business costs, as well as the impact on the company's activities from the environmental aspect. On the one hand, applying the ABC approach, environmental cost accounting, is aimed at determining the cause of costs at the unit level of products (Schaltegger, Burit, 2000). On the other hand, environmental cost accounting works towards pollution prevention as one of the most suitable strategies for managing the company's environmental performance.

Environmental costs can be classified into any or all of the typically categories depending on the specific company. The success of environmental accounting does not only depend on the correct classification of total or environmental costs (conventional, potentially hidden costs, contingent, image / reputation costs) that occur in the company, but it is important to ensure that relevant information is available to those who need it, and in the period of time when they are necessary (USEPA, 1995). The development and implementation of new business strategies to confrontation with environmental challenges will be central to companies in the years to come. Environmental cost accounting and related environmental education will play a key role in this process.

#### References:

- Schaltegger S., Burit R. (2000). *Corporate Environmental Accounting: Issues, Concepts and Practices*. Greenleaf.
- Stevanović, T., Radukić, S., Stanković, J. (2011). The role of management accounting in measuring and monitoring ecological efficiency. *Contemporary issues in economics, business and management*. Kragujevac: University of Kragujevac, Faculty of economics, pp. 445-458.
- United States Environmental Protection Agency, Office of Pollution Prevention and Toxics (1995). *An Introduction to Environmental Accounting as a Business Management Tool: Key Concepts and Terms*, Washington, <https://www.epa.gov/sites/production/files/2014-01/documents/busmgt.pdf>.
- Yakhou, M., Dorweiler, V. (2004). Environmental accounting: an essential component of business strategy. *Business Strategy and the Environment* 13. 65–77.

## SDG Indicators for Municipalities:

Sustainability starts within the municipalities, which are the basis for the implementation of the 17 SDGs and their 169 subgoals. Creating a common basis for monitoring sustainability improvement is demanding process, considering that municipalities do not cover their tasks by universally available data. After UN adopted 17 SDGs, as part of 2030 Agenda, the German Government decided in 2017 to continue the development of the country's sustainability strategy, which was systematically aligned with the SDGs. In spring 2017, a project to work out suitable SDG indicators for municipalities in Germany was considered in the inter-ministerial working group "Sustainable urban development from a national and international perspective". The objective of the project "SDG Indicators for Municipalities" is to identify suitable indicators to map SDG implementation at municipality level in Germany and provide corresponding data. SDG indicators that are of suitably high quality and universally available are Type I indicators. (Highly) suitable SDG indicators that are of sufficiently high quality but – at least in part – not yet universally available are Type II indicators. Consequently, 56 Type I indicators and 64 Type II indicators are identified for the Indicator Catalogue. Every municipality can select suitable indicators to monitor its efforts to achieve SDGs.

Source: [SDG Indicators for Municipalities – Indicators for Mapping Sustainable Development Goals of the United Nation in German Municipalities](#). 2nd, completely revised edition, Gütersloh 2020



## The importance of the 17 Sustainable Development Goals (SDGs) of the 2030 Agenda for municipalities

Used picture source: <https://www.duurzamegemeente.be/>

On 25 September 2015, 193 member states of the United Nations adopted the 2030 Agenda for Sustainable Development at the UN Summit in New York. The Agenda lays the foundation for shaping economic progress in harmony with social justice and within the earth's ecological limits. It is intended to initiate a change in politics and society and to contribute to solving global challenges together and enabling all people worldwide to live in dignity.

At the heart of the Agenda are 17 Sustainable Development Goals (SDGs), which take into account all three dimensions of sustainability – social, environmental and economic – equally.

The focus is on human dignity, the protection of our planet, prosperity of all, peace and global partnership.

The 2030 Agenda is of unprecedented scope and significance, its goals and targets are universal and applicable to all countries of the world. Industrialised countries, emerging economies and developing countries alike must contribute to the implementation of the 2030 Agenda. Politics, business, science and civil society – we all have a collective responsibility for global, sustainable development.

Municipalities are also explicitly mentioned as actors, because the global goals can be achieved most effectively at the municipal level. More and more municipalities are realizing that the path towards the future cannot be tread without paying attention to sustainability. Sustainability necessarily starts within municipalities, as they form the basis for the implementation of SDGs.

It is there where people live, work, spend their leisure time, and where they have their friends and families, the concern for sustainability is thus of vast importance. Ultimately, it is up to the cities, countries, and municipalities, whether the sustainability development will be successful. For this reason, the manner in which communities address sustainability and the implementation of the SDGs is of central importance.

**“Sustainability necessarily starts within municipalities, as they form the basis for the implementation of SDGs.”**

**Goal 1:** No poverty – End poverty in all its forms everywhere.

**Goal 2:** Zero hunger – End hunger, achieve food security and improved nutrition and promote sustainable agriculture.

**Goal 3:** Good health and well-being – Ensure healthy lives and promote well-being for all people at all ages.

**Goal 4:** Quality education – Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

**Goal 5:** Gender equality – Achieve gender equality and empower for all women and girls.

**Goal 6:** Clean water and sanitation – Ensure availability and sustainable management of water and sanitation for all.

**Goal 7:** Affordable and clean energy - Ensure access to affordable, reliable, sustainable and modern energy for all

**Goal 8:** Decent work and economic growth – Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

**Goal 9:** Industry, innovation and infrastructure – Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

**Goal 10:** Reduced inequalities – Reduce inequality within and among countries

**Goal 11:** Sustainable cities and communities – Make cities and human settlements inclusive, safe, resilient and sustainable

**Goal 12:** Responsible consumption and production – Ensure sustainable consumption and production patterns

**Goal 13:** Climate action – Take urgent action to combat climate change and its impacts

**Goal 14:** Life below water – Conserve and sustainably use the oceans, seas and marine resources for sustainable development

**Goal 15:** Life on land – Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

**Goal 16:** Peace, justice and strong institutions – Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

**Goal 17:** Partnerships for the goals – Strengthen the means of implementation and revitalize the global partnership for sustainable development



## The recycling company *E-reciklaža 2010*

E-reciklaža 2010 is a leading company in the management of hazardous and non-hazardous waste. It is licensed by the Ministry of Environmental Protection for the collection, transport, storage and treatment of electrical and electronic waste. It also has an integral permit for the collection and treatment of hazardous waste and the necessary ADR permit for transport. The company's mission is to remove all types of electronic waste, which is classified as hazardous waste according to the Law on Waste Management, from nature through a safe, efficient and socially responsible process, using the most modern technology and recycling machines. Illegal techniques of disposal and recycling of hazardous electronic waste, especially cooling devices, lead to the leakage of toxic oils and gases into the ecosystem. Freon irreversibly destroys the ozone layer, contributes to the creation of ozone holes and causes climate change, while ammonia and carcinogenic oils from electric motors devastate land and water. That is why the company *E-reciklaža 2010* in September 2012 founded a facility for recycling cooling devices and other electronic waste,

the first of its kind in the Balkans and the first in Southeast Europe, which combines the recycling of cooling devices and other EE waste in a way that is presented in this recycling industry as BAT (best available technology) in the whole world.

The company treats 15.000 tons of e-waste per year - all categories of electronical and electrical waste. The destruction process is certified, safe and reliable. The company is certified for the collection, transportation, storage and treatment of electrical and electronic waste by the following standards: ISO 9001, ISO 14001 and ISO 450001 by the certification body TÜV SÜD Management Service GmbH Munich.

The result of recycling process is a high-purity recycling material that is immediately used as raw material. Copper, aluminium, iron, ABS plastics, glass and many other materials come out of the factory ready for reuse.

The Intellectual Property Office of the Republic of Serbia recognized a small patent entitled: "Chain carrier for a universal cross-circulation shredder" and a large patent entitled "System for monitoring the mechanical load of an universal cross-circulation shredder",

and the company, also, has a protected individual trademark, i.e. a sign it uses as a logo.

In 2010, over 200 employees found work in the company. The company found ten new local branches in order to contribute to the development of small companies that would deal with collecting waste.

The company, through daily actions with non-governmental organizations, schools and other organizations, encourages the development of awareness of the local environment and society in general about the importance of preserving and protecting the environment. By constantly improving knowledge through the education of employees and the education of the environment, it contributes to a better understanding and encouragement of useful ideas, innovations, actions and all kinds of activities of the public.

The company *E-reciklaža 2010* strives to maintain a leading position in the field of recycling and dispose of all waste from the territory of the Republic of Serbia in an adequate manner, as well as to become a regional leader in the treatment of EE waste, which is also the vision that the company strives for.

## EYE ON IT

### End of waste for PUR foam

On the market there is still a huge amount of end-of-life cooling devices which contain polyurethane foam in the insulation body. Considering that the global warming potential of the polyurethane foam of one cooling device is significant and can be saved with proper disposal of the insulation foam.

The company E-reciklaža in cooperation with the Global Environment Facility (GEF), the Ministry of Environment and UNDP is the developer of the project entitled "End of waste for PUR foam". The project idea contributes to the efforts of promoting the circular economy (such as converting previous waste – namely cooling devices, into new raw material), thus directly reducing the release of one of the most powerful greenhouse gases into the atmosphere (the F gases).

In the first phase, separation of approximately 10t of freon will lead to 16.25t of CO2 emission reduction per year. Moreover, polyurethane foam which is left after the freon is separated will be converted into a new product which shall become an absorbent that collects oily liquids, such as gasoline and petrol, in case of their uncontrolled leakage into the environment (hence preventing unintentional burning of fossil fuel and related GHG emissions).

Source: <https://www.ereciklaza.com/>





## Johnson Electric Niš

Johnson Electric Niš is part of Johnson Electric Group. The plant in Niš produces electromotors for all industries, primarily automotive.

From the opening in September 2014 until today, the plant in Niš is continuously developing and today it consists of 23,000 m<sup>2</sup> production hall and over 1,700 employees.

The company has mastered the process of plastic injection molding, stamping, coating, turning, die-casting, PCBA production and thereby vertically integrated the largest part of the production of the components.

## Upcoming Events

- **Study visit to the company Johnson Electric doo Nis**

The business practice of the company Johnson Electric doo Nis will be presented by Mr Nikola Blagojević, Trainee Program Coordinator, and Mr Marko Stojanović. The presentation will take place in the premises of the Faculty of Economics in Niš and afterwards participants will be able to talk to the representatives of the company in person.



- **International scientific conference of the University in Niš**

The aim of the conference on “Sustainable Finance, Insurance and Reporting: Principles, Practices and Challenges” is to bring together academics, business people and policymakers to discuss recent research on the following topics: Sustainable Finance and Corporate Governance, Insurance for Inclusive and Sustainable Growth, The Future of Corporate Reporting in a Sustainable Economy. More information can be found at: <http://sufin.ni.ac.rs/>



- **Roundtable discussion on Innovation Trends and Sustainability Practices in Insurance Industry**

The guest speakers of the roundtable discussion are Professor Karel Van Hulle, Mr Gorazd Čibej, the Director of the Insurance Supervision Agency of Slovenia (AZN) and Michael Brandstetter, the Manager of EU and International Affairs at the Austrian Insurance Association (VVO). More information can be found at: <http://sufin.ni.ac.rs/>



With the support of the  
Erasmus+ Programme  
of the European Union



The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



Erasmus+ Programme  
Jean Monnet Activities  
Jean Monnet Academic Modules  
Project Reference:  
611831-EPP-1-2019-1-RS-EPPJMO-MODULE