



LIFE E-WASTE GOVERNANCE

FEEDBACK REPORT

STAKEHOLDERS' RESPONSE REPORT

E-CIKLIRAJ!

Welcome to the pages of the Life e-Waste Management project report, where we present the response of the stakeholders who participated in the project and helped us achieve the project results.

In the brochure you will learn about different views on the proper management of e-waste and waste batteries. You will obtain information that will help us carry out awareness-raising activities in the field of waste management.

Name of the project: **Life e-waste governance LIFE14 GIE/SI/000176**

Duration of the project: **1. 1. 2016 - 30. 12. 2020**

Beneficiary of the project: **ZEOS, d. o. o.**

Project budget: **1.795.765,00 EUR**

Funding: European Union **919.209,00 EUR**,

Ministry of the Environment and Spatial Planning of the Republic of Slovenia **153.202,00 EUR**

The project aims to raise public awareness about the proper management of e-waste and waste batteries and to change people's habits by establishing a consumer-friendly network for e-waste and waste batteries collection.



REPUBLIKA SLOVENIJA
MINISTRSTVO ZA OKOLJE IN PROSTOR





Proper e-waste management brings only positive effects - not only for the environment and health, but also for the economy!

Emil Šehič, M.Sc.
Director of ZEOS, leader of the Life E-Waste Governance Project

In the company ZEOS, we have approached the EU financial mechanism for co-financing projects in the field of environmental protection, as this completely coincides with the vision of our company. Besides establishing a consumer-friendly waste collection infrastructure, systematic information and communication of contents that encourage households to effectively separate such waste is of key importance for the stability and operational efficiency of e-waste and waste battery management. Awareness-raising activities on appropriate e-waste and waste battery management were upgraded to the promotion of campaigns at national level thanks to co-financing. As a result, we are strengthening collection networks and from year to year we are achieving an increase in the amount of e-waste collected separately. The first project of the Life Slovenian WEEE campaign, which was carried out between 2011 and 2013, was mainly aimed at providing information about the proper management of e-waste. We decided to apply for the new Life e-Waste Management project in order to use the acquired experience to change the habits of households. The main goal of the project is to increase the level of e-waste separation of smaller dimensions, which otherwise too often end up in the mixed municipal waste. I believe that we have succeeded with this project.

Proper e-waste management is crucial, because we cannot imagine modern life without it. Their use and availability on the market are expanding, so the quantity and weight of this type of equipment and products is increasing sharply each year. As a result, more e-waste is generated every year. These contain valuable secondary raw materials, as well as many materials and components that are dangerous to the environment and human health. Thanks to e-waste separation and appropriate treatment technologies, hazardous substances such as lead, cadmium, mercury and greenhouse gases can be successfully eliminated, while achieving high levels of secondary raw material recycling such as iron, copper and aluminum. At the same time, we should not overlook the fact that the appropriate recycling of waste electrical and electronic equipment has, in addition to positive effects on the environment, also offer a number of positive economic and social effects. With the appropriate management of e-waste, we create new jobs and enable investments in infrastructure for the efficient management of waste and its development.

One of the key advantages of the project is connecting the key stakeholders in the waste management process. Through actions and activities within the project, we effectively connected households, local communities, municipalities, public waste service providers, collection providers, producers, legislators, media and non-governmental organisations etc.. As a result, we have created a solid platform for further development in this field and enabled successful and efficient joint action in the future. I am grateful to all of you for your excellent cooperation as well as the work undertaken, and for recognising our vision and to have joined us in the efforts for proper and efficient e-waste and waste battery management, and also for recognising social responsibility and the business opportunity. I am convinced that the connections we have established have already shown their positive effects. And these will increase with good cooperation.

As part of the project, an additional network for the collection of e-waste was established, with an emphasis on e-waste of smaller dimensions and waste batteries which have, so far, ended up too often in the mixed municipal waste. Thanks to the green corners at retailers, street collectors and mobile collections, we have not only established a wide and well-functioning collection network, but with its presence in public places we have also established an effective infrastructure where people can get information on how important separate e-waste and waste battery collections are. By maintaining and strengthening this network, it will be much easier to achieve the levels of collection and processing of e-waste required by law.

Project stakeholders

represent all those who participated in the project activities and have thus helped to raise the awareness of individuals about the proper handling of e-waste and waste batteries.



As part of the Life project, a consumer-friendly network for the collection of e-waste and waste batteries was created



Consumer-friendly network for e-waste and waste batteries collection

730
STREET
CONTAINERS



71
GREEN
CORNERS



1
MOBILE
COLLECTOR



With a consumer-friendly collection network and numerous awareness-raising events and campaigns, we are changing the habits of individuals and encouraging them to take care of the environment by separating e-waste and waste batteries properly. It is important to involve many stakeholders who have a strong influence on individuals at national or local level.



**What do
the project
stakeholders
think?**



Peter Tomše

Ministry of the Environment
and Spatial Planning;
Waste Division

**We are still
faced with the
challenge of how
to collect as much
small electric
and electronic
equipment
as possible
separately.**

In your opinion, are Slovenians sufficiently environmentally aware?

In recent years, environmental awareness in Slovenia has risen significantly. However, it is not enough just to declare awareness, it is also important to reduce the gap between awareness and actual behavior. In fact, it is a long-term process in which there is always room for improvement. We will probably never be able to say that we are "sufficiently" environmentally aware. Especially with increasing pressures on the environment and increasingly ambitious environmental goals regarding separate waste collection where the proper conduct of the final end-user is a key prerequisite.

What is the best motivation for people in the developed world to start separating waste?

Individuals, of course, differ in their daily habits and motivation for waste separation. Motivational factors for waste separation are different: from personal norms and habits, social norms, the appropriateness and accessibility of collection methods, incentives from the competent authorities and, last but not least, economic incentives. Sometimes a good motivating factor is the actual information about the positive environmental impact that our behaviour has and the good feeling that is derived from having done something socially responsible. On the other hand, the financial benefit is often not enough to change the behavioral pattern (introduction of a financial incentive, lower costs of the waste management service etc.). Research shows that, in addition to the appropriateness and accessibility of collection methods, one of the most important motivating factors is still the quantity and quality of information about the consequences of inappropriate waste management.

In your opinion, has the newly created collection network (street collector, green corner and mobile collector) helped to achieve better results in the collected quantities of old appliances and waste batteries in Slovenia?

Certainly, the newly created collection network has helped to achieve better results in the separate collection of WEEE and waste batteries and accumulators. Besides the direct impact of new, more convenient and elegant collection methods for collecting quantities of waste (larger collected quantities), we must not forget their indirect impact. They contribute to changing behavioral patterns. The more new collection methods are made available and adapted for the general public, the more effective they will be in changing end-user behavior patterns.

Why are LIFE information and awareness projects important for the Slovenian environment?

In Slovenia we had, and still have, 10 Life information, awareness and management projects, and experience shows that these are quality projects that have created a major shift in the awareness of the general and professional public of what certain practices mean for the environment. What's more, and especially recently, people are actually changing their habits which is also the goal of these projects.

How successful are we in Slovenia compared to the EU in the field of awareness?

Eurobarometer 501¹ (the Attitude of EU Citizens towards the Environment, 2020) shows that the vast majority (95%) of Slovenes consider environmental protection very or quite important, which is somewhat above the EU average. For the Slovenian people, the growing volume of waste is the greatest environmental threat, while the average EU resident sees climate change as a major environmental problem.

Comparisons between our and average EU environmental behavior are interesting. We are better than average in waste separation (SI: 82, EU 66), in avoiding the use of disposable plastic products, buying local products, reducing energy consumption, buying products with too much packaging and eating habits. These data show us that we have already done a lot in the field of awareness, but that there is still a gap between our understanding of environmental problems and activities that would contribute to reducing them. Mostly, we are above the EU average or very close, as far as the active contribution of citizens and changes in certain habits are concerned. Scandinavian countries can still be regarded as role models.



Tatjana Orhini Valjavec

Ministry of the Environment and Spatial Planning; National Contact Point

Waste management schemes should never stop raising awareness and informing people. Consumers, however, should make an effort to find credible information when deciding on a purchase or service and to consider whether their actions may have a negative effect on the environment.

¹ <https://ec.europa.eu/commfrontoffice/publicopinion/index.cfm/survey/getSurveydetail/instruments/special/surveyky/2257>



Sebastijan Zupanc
Chamber of Public Utilities,
Director

The system of separate collection of municipal waste in Slovenia is very well prepared and efficient, both from an organisational and economic point of view.

Do you notice any changes in the proper handling of waste? Where are the obstacles?

In the Chamber of Municipal Economy, we have been noticing for several years that the quality of separate waste collection is declining. This is especially noticeable in the collection of municipal packaging waste. Because the negative trend of the quality of separate municipal waste collection coincides in time with the fact that packaging waste management companies do not take packaging waste from utility companies. As a result, there are enormous piles of uncollected packaging waste. Therefore, it can be concluded that the people of Slovenia have lost confidence in the systemic separately collected waste management solutions. If there is no trust in the solutions, then the appropriate practices are abandoned and people become indifferent in the sense that "my efforts in separate waste collection are in vain...".

Over and over again, we encounter full containers for mixed waste, despite efforts to raise awareness. What is the cause of improper waste separation and what measures are needed to change the behavior of individuals in waste management?

My assessment is that we must first provide a stable waste management system at state level → (with regulations and effective control of the implementation). Once the stability of the system is provided, intensive education, awareness and control over the behavior of the population will make sense. The people of Slovenia are very pragmatic; if they see the sense of appropriate municipal waste management, they will make an effort and follow the guidelines. Otherwise, they will not do that. Therefore, investing energy and resources in raising public awareness, while there are piles of packaging waste with cockroaches and rodents which are ultimately suitable only for incineration, does not achieve the desired results.

As part of the project, we established new collection points for the delivery of e-waste and waste batteries (street bins, green corners and mobile collector). Do you think there are enough e-waste locations?

With the E-cycle project, the company ZEOS, which is the project manager, has achieved exceptional results. Of course, the company is limited by resources when installing street containers for the collection of small waste electrical and electronic equipment. Therefore, it is unrealistic to expect that only one stakeholder in the management of WEEE will provide all the necessary infrastructure for the collection of such waste. A precondition for successful separate waste collection is easily accessible waste disposal infrastructure for residents. Therefore, special care should be taken in local communities, at the points of sale of electrical and electronic devices, in shopping centers and utility company collection centres, as well as wherever there is sufficient potential for the possible disposal of these types of waste.

Collect, separate, respect pure nature!

What do you think about the new e-waste and waste battery collection network that we have set up together with you at your location?

The newly created network is an important complement in the field of e-waste collection and separation. In the area of e-waste and waste battery separation, we would like to see even more user-awareness by all stakeholders. In our municipality, we have only had positive experiences regarding the collection of e-equipment with street collectors and mobile collection. Commendable!



Sandi Grčar
Komunala Zagorje, Director



Jože Leskovar
Kostak, director of Public Utilities Sector

What do you think about the new e-waste and waste battery collection network that we have set up together with you at your location?

The creation of the e-waste collection network with the installation of street bins also brought the separation of e-waste closer to the citizens in the municipalities of Krško and Kostanjevica na Krki. Not only by offering the possibility of disposing e-waste close to home, but also with awareness-raising activities on the importance of separate waste collection. The project became very recognisable, the corporate image and activities were very well set out. We have had a good experience with the installed street collectors but, unfortunately, at some locations there have been burglaries, the collectors have been emptied and some damage has occurred. Despite the fact that we keep repeating some information, it still happens that people put old stoves or refrigerators next to bins on ecological islands, although there are other options, such as the free collection of bulky waste. Obviously, we will not run out of work in the field of awareness.

At the beginning of the epidemic, when many people took the time to clean up thoroughly, the amount of waste on ecological islands increased significantly. There were also a lot of unused things there. During the epidemic, we somehow came to realise what we really needed for living. We should be aware of this when shopping.

Awareness-raising and information is effective when citizens become confident in the fact that the collected e-waste will actually be recovered and recycled.

As part of the E-cycle project, we carried out successful awareness-raising activities together with you. What do you think is the recipe for a good awareness campaign?

This is true and I hope you will continue with similar activities in the future. In such a way, our work is also more successful, and has greater meaning and significance. In our experience, it is important to choose the right time for a good awareness activity. Maximum efficiency of awareness is a few days or a week at the most before an event. If too much time passes leading up to the event, then too many other things happen in between and therefore the event no longer gets enough attention. For local events, raising awareness is most effective in the local media and information on leaflets regarding communal services. The choice of the event location is also important. Most citizens attend an event at a location where they have so-called daily chores, where youth and families with children and the elderly population meet.



Janez Štalec
Loška komunala, Škofja Loka,
Leader of Waste Management



Tadej Beočanin
Municipality of Ajdovščina, Mayor

What do you think about the newly created e-waste collection network and what else do you miss in the field of waste separation in Slovenia?

The newly formed network is a great opportunity to set up an effective waste separation system, which is an exemplary contribution to a healthier environment. The European project is coming to an end, but the collectors will remain, along with the possibility of separate collection and further recycling of hazardous e-waste. People will also remain aware about what to do with such waste. It is important that such waste is processed and raw materials that are still usable are removed. I think it would also make sense to set up collection points for end-of-life e-devices, which are still working and could be repaired.

It is important that citizens are aware of how very dangerous e-waste is, as it also contains heavy metals, amongst other things. If such waste ends up in nature then the toxic substances it contains, sooner or later, will also end up in the water.

Young people are internet experts. They get almost all the information they need from there. That is why, as a society, we need to adapt to this. We need to approach them where they are active.

Which information do you think should be presented to young people when providing information about how to behave regarding e-waste and waste batteries?

Most importantly, young people should realise that every individual can make a change in their environment. With their positive attitude they can attract and inspire their peers and their relatives. Experiences from the field (eco workshops) show that young people are very susceptible to this type of issue, as at most workshops they participated very diligently in solving the tasks they were given. At each workshop they also showed their creativity. Experience with workshops has shown us that within formal education, young people also want informal content and methods, as in such a way they also gain a lot of knowledge.



Photo: David Lotrič

Maja Hostnik
Youth Network MaMa, Director



Renata Filipič
Valentin Vodnik Primary School, teacher

What are children like today and what do they want? What is the role of school in the field of environmental protection?

I have been following children and adolescents for decades. They are different than they were a decade ago. The fact that they have the possibility, and even the urgency (in recent months), to use the World Wide Web has made them slightly more passive. But if they are given a chance to be active in things in which they believe, then they are exactly as we were. They become ardent advocates and active citizens. This is also the case in environmental awareness. They become active collectors, researchers, screenwriters, directors, reporters, cameramen, editors, as long as they see the point in it. And here they see it. Students follow what is happening around the world and see many irregularities in the environment. There are many more irregularities than there used to be: a plastic island in the Pacific Ocean, dying forests, air pollution, light and sound pollution - these are the topics that make young people very interested. Their future depends on them. The health of natural resources and all living beings. The same applies to us. Hence this connection. It is understandable.

I don't miss much in the field of e-waste collection as the main problem goes higher in the e-waste hierarchy; the problem lies with the producers as ZEOS and individuals.

I'm not missing much on the e-waste collection field. In my opinion, the main problem lies higher up the hierarchy, with producers and not so much with ZEOS or the general public.

What do you think is the main problem when separating waste? What information should be exposed to citizens in providing information on the proper management of e-waste and waste batteries?

Awareness and information are only one factor, only one way to achieve the desired conduct but it will never be enough as such. It is important, but we must not forget the mechanisms of positive and negative economic incentives that are underused, although they are universally more efficient. Otherwise, I think the most problematic are composite materials, products made of several materials, different plastic features and sometimes different rules between municipalities. In the case of e-waste and waste batteries, it is still crucial to communicate the information that they do not fall under mixed waste.



Jaka Kranjc
Ekologi brez meja,
Leader of projects



Photo: Jernej Čampelj

Vesna Vrabelj
consumer

Do you think the waste separation system in Slovenia is effective? Have you noticed any changes in this field over the last ten years?

The system in Slovenia is not the worst, but it is not at the level I would like it to be. Many times waste separation is the last concern for people. For example, a notification has been hanging on the wall for a long time informing them when the bulk removal will take place and when they should dispose of waste at a certain location. Yet, I almost always notice how piles are formed much earlier, as well as on the day of removal and the days after. This is a sign that something needs to be changed in this area. Eco-islands could also be better arranged and there could be more of them. If people knew exactly where to dispose of various types of waste, including hazardous ones, you would see less waste in inappropriate places. Toys are often just left on the container for plastic. Too bad that they can't just take them away and get them repaired, cleaned and reused. I am worried about the waste lying right next to parking lots, on lawns and in places where passers-by would not even need to break their stride to dispose of a can, a handkerchief or a face-mask.

It is essential to realise how important the impact of waste is on drinking water. No one can live without water.

We must realise that we belong to the Earth, not the other way around.

What do you think about environmental awareness in our country compared to a decade ago and what do you think is lacking in the field of e-waste and waste battery separation in Slovenia?

Ten years is a lot in today's fast-paced world, and there is also a big shift in raising people's awareness. However, it is important to update our knowledge regarding the problems of waste, which concerns us all. Key information has to be repeated over and over again. For those who keep forgetting and for those who are coming. We must not be satisfied with the results achieved, people need to be constantly reminded and educated in all areas concerning the common future. The media should do a lot more. It seems to me that we have too little respect for our Earth, especially when knowing how good it is to us.



Zlatan Čordiĉ – Zlatko
musician



Andrej Težak – Tešky
Improviser, stand-up comedian

What do you think about ZEOS' e-waste separation system?

ZEOS e-waste separation system is excellent. I like the fact that I have an e-waste collection container close to home and to see it more often. It reminds me of some broken appliance on which dust accumulates on a shelf at home which would otherwise first go down to the basement and then probably end up in an ordinary container, though I really try to dispose all waste at appropriate locations. I also like the fact that there is a lot of effort to raise awareness amongst the youngest in schools, because it is easier to teach children how to deal with our planet properly, and often their knowledge is passed on to parents and grandparents.

People need to be warned about the harmful and toxic components of electrical waste, as they consequently end up harming themselves, even if they dumped the battery in the woods far away from their house.



The Life E-waste Management project ambassadors: Zlatan Čordić - Zlatko, Mojca Mavec, Andrej Težak - Tešky.

You can read the full interviews on the website www.e-odpadki.zeos.si
(www.e-odpadki.zeos.si/sl/gradiva/odzivi-deleznikov)

We thank all who have participated in the Life E-Waste Governance Project.

Each of you has contributed to the positive results, both the individuals who brought their old devices to the dedicated collection points, as well as all the stakeholders with whom we have set up an effective collection and awareness network. With the good practices and habits that we have set out and encouraged within the project, we will continue to do so in the future. Dangerous substances will not end up in nature, and valuable raw materials will be reused. The circle will be closed, nature will be cleaner and our environment will be healthy. Let's stay connected, let's stay active - every action counts!

We invite you to visit www.e-odpadki.zeos.si to check the results and impacts of the project.

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