



LOOP
“Living Opportunities for our Planet”

IO5: National Field Research Report

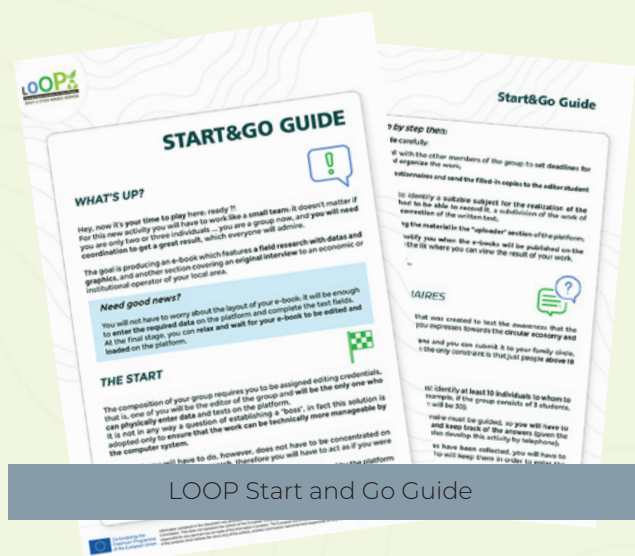


INTRODUCTION

The students and teachers reported that the IO5 National Field Research step of the LOOP project was quite enjoyable for both teachers and students. Below is the feedback on this phase of work collected from: Liceo scientifico, linguistico e di scienze applicate “Elio Vittorini”, A’ technical and vocational school of education and training Lemesos, Scholi Omodous and V. gimnazija Zagreb.

In spring 2021, the students and mentors were given A Start&Go Guide with contextual and technical information on how to work in national groups to collect information on sustainability, circular economy and environmental protection in their countries and local communities.

They were asked to gather data based on a questionnaire to be filled in by family and friends and then choose interesting people of various professions to participate in interviews by answering a set of questions about their work with reference to the 4 Rs: recycle, redesign, reduce and reuse.



LOOP Start and Go Guide

Talking about their experiences in this phase the students said: “In the beginning, when we were just listening about recycling, reuse etc. and the impact that human activities have on Earth, it all seemed a bit abstract. It was just theoretical, and we didn’t feel so involved in the process. Doing an interview with someone who was more committed to reusing than us, for example, was a great way to find real examples of helping the planet and environment.

Also, it gave us great ideas of how to improve the impact we make on our planet. Our interviewee made us realise that some people do care about minimising waste and making something new and creative from leftover materials. But besides that, it was a great way of expanding our language knowledge.”

The students added that they had no problems with the questionnaires at all. They distributed them amongst their friends and families, and having them translated into Greek, as the students from Cyprus did, for example, helped the process as well (the participants could use the English or Greek version of the questionnaire).

Also, it gave the students the opportunity to show their family what they were working on and what this project was all about.

Others mentioned that they had fun while analysing the collected data and that the questionnaires were also a very good way of proving that our civilisation wasn't so familiar with facts and practices about reuse, recycle, redesign and reduce: "That leaves a big window for progress in the domain of sustainability and environmental protection. And we think that fieldwork is a great way of socializing and getting to know other people, but also realising how big this problem is and finding out possible solutions and ways of improvement."

Regarding the method of research, many agreed that it was nice to work together and collaborate to get the job done: "All the necessary information could be found on the LOOP website, which was fully supplied with the data needed, and we also searched on the internet, to make the answers more complete."



Students preparing for work on LOOP's 4Rs

As far as the interview is concerned, finding people to interview was not such a problem because there are many people from various fields of work that are now involved in circular economy. In some cases the teachers made the first contact with the interviewees to facilitate the process. All the interviewees were very positive and willing to take part in this project, especially since they were going to be interviewed by students. A group from the "Elio Vittorini" school said that they interviewed one of their mothers who worked in the municipality, for example. Among the interviewees were architects, doctors, engineers, artists, biologists, designers, company employees, the local authorities, relatives and friends.



Students preparing for work on LOOP's 4Rs

Some of the students were at first a bit reluctant to conduct the interviews face-to-face, but once they started, they felt comfortable, and they even had fun during the interviews. The fact that they already had a set of fixed questions prepared, made it much easier for them. They familiarised themselves with the questions and the topic, so they were more relaxed during the interviews.

Due to the Covid pandemic, there were some problems as well: "Some of the interviewees agreed to be interviewed quickly, but we had trouble getting in touch with them later and we often had to move deadlines. Other reasons of extended deadlines were if the interviewee was a company employee."

For example:

- the company where the person worked needed to know where the information would be put or to whom it would be visible,
- the company wanted to know the details of the project (which organisations were participating),
- the company wanted to choose the pictures they could give us for the project,
- we were not allowed to get in direct contact with the person we were interviewing via e-mail, but with the person responsible for public relations in the company,
- we were not allowed to share certain information we received from the company with each other or with anyone else.”

What the students liked very much was “the feeling of being a journalist for a few moments. It was a very interesting experience. We learned something new from each interviewee and they were intrigued by our questions too.”

Finally, despite school commitments, the students managed to complete their tasks successfully and post them on the LOOP platform.



In conclusion, the students added: “We have deepened our knowledge and perfected our skills with this work because this project made us discover many things we did not know on the topic of environmental protection. It gave us many ideas that we would like to continue to explore in the future. For example, now we love buying second hand, especially as fast fashion clothes are one of the main causes of environmental pollution today. We would encourage more people to buy second-hand things to minimize waste, or reuse what they already have instead of buying things that they throw away in a short time to replace them with new ones.”

All in all, this step was conducted successfully and positively. The students gained valuable knowledge on circular economy directly associated with the Cypriot, Italian and Croatian society and were ready for the next phase of the project and the new challenges ahead.

*Prepared for LOOP by V. gimnazija Zagreb
 2021-2022*



Example of Interview: REDUCE

Activity of the interviewee:

Ivana Petri evi , Quality Director of the Beverage Group within the Fortenova Group (additional explanation: The Beverage Group is an organizational unit of the Fortenova Group, consisting of Jamnica Plus in Croatia, Sarajevski Kiseljak in BiH, Mg Mivela in Serbia, Jamnica Mineral Water in Slovenia and Jamnica Water in Hungary). Main tasks: harmonization of operations within the companies of the Beverage Group, continuous improvement, and management of the systems of quality, food safety, environmental protection, and energy efficiency in order to ensure harmonization with the vision and goals of the Beverage Group.

Short Bio:



As the quality director of the Beverage Group within the Fortenova Group, I am in charge of three production companies (Jamnica Plus, Sarajevski Kiseljak and Mg Mivela) that have a total of five production plants at five different locations in the region, and two distribution companies: Jamnica Mineral Water in Slovenia and Jamnica Water in Hungary).

I have been working in Jamnica for 21 years, and I worked in the production, laboratory, and quality department that I now lead. I graduated from the Faculty of Food Technology and Biotechnology in Zagreb and completed postgraduate studies at the Faculty of Economics, majoring in quality management.

Some areas I work on are:

Systems and processes management

- Implementation, certification and maintenance of quality systems, food safety, environmental protection and energy efficiency and maintenance of ISO 9001, HACCP, IFS Food, NSF, ESMA, ISO 22000, US Army, ISO 14001, ISO 50001 certificates throughout the Beverage Group

Food safety management system

- Defining the food safety process (analysis of system trends, CCT - critical control points, risk analysis, etc.
- Maintaining good production practice in accordance with the legislation through the entire business of the Beverage Group (from input raw materials, production processes, to storage and distribution)
- HACCP, TACCP, hazard categorization, risk assessment and opportunity of the food safety system, verification of documentation and records (in the Fortenova Group beverage group I was appointed the person responsible for maintaining the food safety system - IFS Food System)

Laboratory process management

- Defining and maintaining good laboratory practice
- Management of processes of conducting microbiological analyses of raw material base, finished products, technological waters
- Management of control and analytical laboratories in accordance with the requirements of good laboratory practice according to the prescribed food safety plans and sampling plans

Environmental management system and waste management

- Establishment, maintenance, and improvement of the environmental management system (according to the requirements of the ISO 14001 standard and applicable legislation)

Energy management system

- Establishment, maintenance and improvement of the energy management system and energy efficiency according to the requirements of the ISO 50001 standard (in the Beverage Group I was appointed the person responsible for the maintenance of the energy management system)



1. Reducing also means wasting less: tell us how you approached this topic both economically and culturally.



As a leading regional producer of natural mineral waters and beverages, water and environmental protection, as well as responsible management of water and other resources is woven into our business, and it is our obligation as a member of the community in which we operate. For many years we have been implementing various initiatives, trainings and projects for smart waste management and proper waste separation, and one of them is the project of reducing the total amount of municipal waste to the lowest possible level.

Water is one of the most valuable resources in our environment, and without water there wouldn't be any of our products. In order to prevent excessive abstraction or potential pollution of sources, we continuously identify and assess the impact on the environment, focusing on the interrelationship of soil, air, flora and fauna, and people and landscapes. We are aware that we cannot take more from nature than it provides, so we respect nature and make systematic efforts to preserve our resources in the long run, while respecting the company's compliance obligations and voluntary commitments. We draw natural mineral water from springs in Pisarovina, Gorica Svetojanska, Kiseljak, Kreševo and Velu .



In addition to natural mineral water, we pay great attention to the rational use of our technological waters. In all our production facilities, wastewater is treated, and the quality of wastewater is regularly checked in accordance with the requirements.

I also work in Laboratory process management, so I'm acquainted with defining and maintaining good laboratory practice, management of processes of conducting microbiological analyses of raw material base, finished products, technological waters etc. and management of control and analytical laboratories in accordance with the requirements of good laboratory practice according to the prescribed food safety plans and sampling plans. There are devices for biological wastewater treatment in the Jamnica and Jana plants. In biological treatment, a membrane for ultrafiltration is used, i.e. a technology called MBR (membrane biological reactor), where UF membranes are used to separate the activated sludge from the treated wastewater. Today, MBR is considered the best available technique (BAT) for wastewater treatment in the food industry.



2. What kind of reduction is involved in your activity: give us concrete examples.



We are adapting our business and production processes to a new way of working in the field of reducing the impact of certain plastic products on the environment and waste management systems, which primarily includes the extended responsibility of product manufacturers. As the person in charge of environmental management system and waste management I deal with establishment, maintenance, and improvement of the environmental management system (according to the requirements of the ISO 14001 standard and applicable legislation).

With the aim of using as little plastic as possible, we have been working on changing the design for many years in order to reduce the weight of our PET bottles, and thus also reduce the potential for environmental pollution with plastic. Thus, this year, our Jamnica underwent a major redesign of the PET bottle, which is lighter and thus contributes to reducing the amount of plastic. Thanks to these new PET bottles for Jamnica, we plan to reduce the amount of plastic by about 220 tons and CO₂ emissions by about 9% by the end of the year.

During 2020, we started new business and production processes by developing, and this year placing on the market, a new bottle made of 100% recycled PET material for our natural mineral water Jana. This is another step forward because recycled plastic or rPET involves the reuse of plastic in the production of new bottles. Reuse is the foundation of the circular model of the economy.



By using recycled plastic, we are helping to reduce the amount of plastic waste: in 2021 we will reduce the amount of plastic by 44 tons compared to the year before, while in 2022 the amount of plastic will be lower by as much as 73 tons compared to 2020. In addition, it is important to note that this reduces CO₂ emissions by as much as 79% or 1,229 tons of CO₂ per year. It's kind of like we took 307 cars out of traffic.



This year, in addition to the mentioned Jamnica and Jana, we introduced PET packaging of reduced weight for all our other brands: Sarajevski Kiseljak, Mg Mivela, Sky, and in the coming period we plan to introduce rPET packaging in other brands - not only in Croatia but in the entire region which we do business with.

We emphasize our commitment to reducing plastics and CO₂ emissions in the new, redesigned packaging of our brands with the Going Green brand - less plastic, less CO₂ emissions.

3. Did your choice also involve raising awareness among collaborators, or the supply chain? Tell us how you handled these situations.

We believe that change starts with ourselves and that is why we decided on a smart waste management pilot project to reduce the total amount of municipal waste at the location of the production plant Jamnica. As part of the project, containers for various types of waste have been set up, employees are being made aware of the importance of proper waste separation, and we are continuously improving our separation system. I'm responsible for energy management system and by that, I mean the establishment, maintenance and improvement of the energy management system and energy efficiency according to the requirements of the ISO 50001 standard (in the Beverage Group I was appointed the person responsible for the maintenance of the energy management system). In the coming period, we plan to implement the project in other production facilities. The ultimate goal of the Zero Waste project at the landfill is to ensure that nothing ends up at the landfill by properly separating different types of waste.





The concept of zero waste or zero waste is a process in which all waste resources can be returned to the system. It is known that it is not easy to recycle all waste, and our focus is on reducing waste and reusing materials. In the first phase of the project, at the location of the Jamnica production plant, we researched and analysed what municipal waste includes. For such an analysis, we measured different waste streams and detected incoming waste components. After collecting the data and determining the quantities, we divided the obtained results into categories and identified potential possibilities.

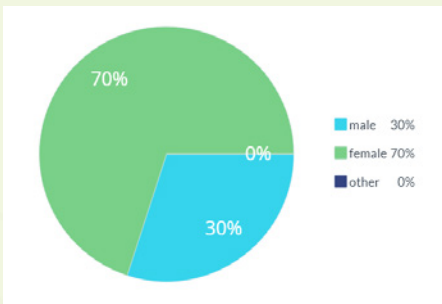
Proper sorting and disposal by category prevents waste from ending up in landfills. At the same time, we are finding new ways and partners interested in the treatment, processing / use of individual waste components. Today, most of our useful technological waste ends up with processors. For example, Jamnica glass bottles are separated and taken to an authorized processor for the production of new glass packaging, PET packaging is handed over to our partner for further processing, sugar bags are used as packaging for other products, foil is separated and sent to the processor, as well as cardboard packaging, metal plugs... thus saving resources and protecting the environment.



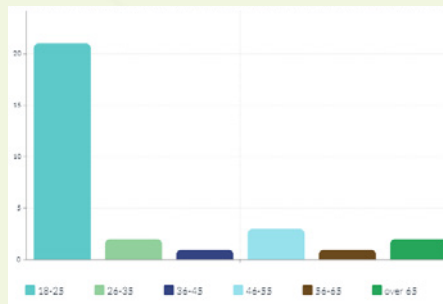


Example of Questionnaire: REDUCE

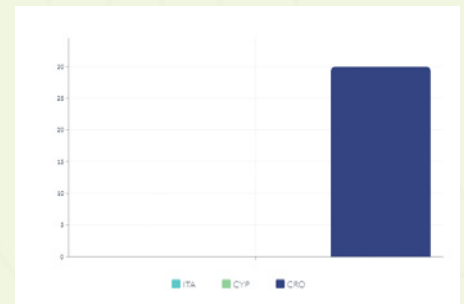
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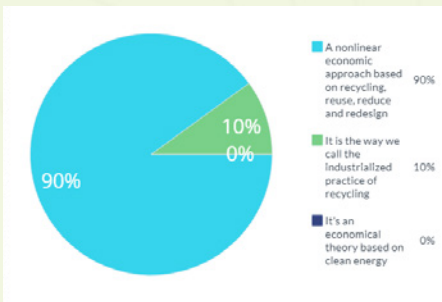
Age:



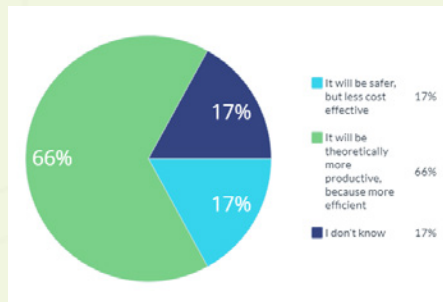
Nationality:



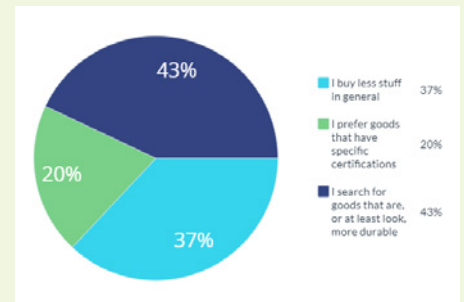
1. What is the so-called "circular economy"?



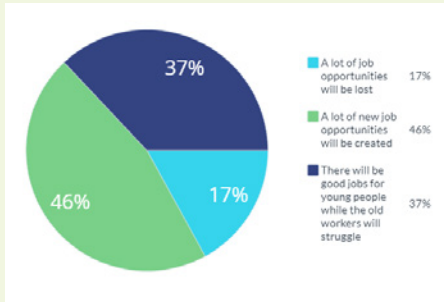
2. Do you believe that a more sustainable economic system can be equally productive than the current one?



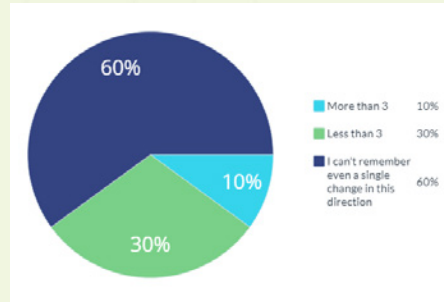
3. Which of these consumer choices have you decided to implement in the last 10 years to protect the environment?



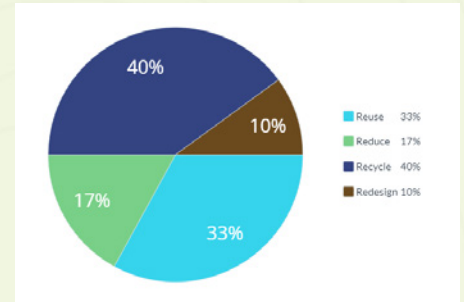
4. How will the so-called “circular economy” affect the job market?



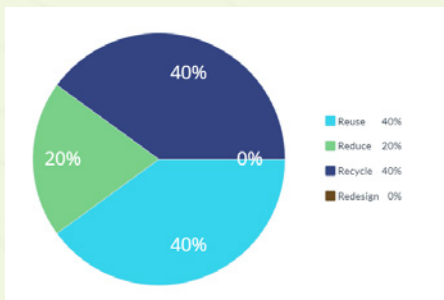
5. In your work, how many strategic choices related to sustainability have been made in the last 10 years?



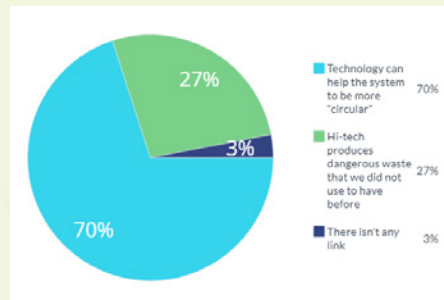
6. Which of these 4 “Rs” is more important to ensure a better future for humanity?



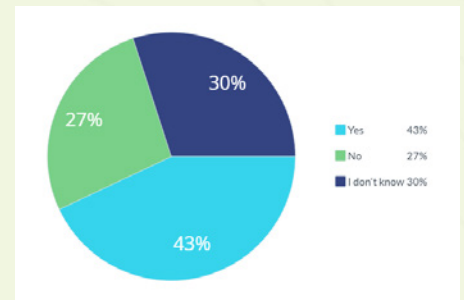
7. Which of these 4 “Rs” is most present in your family’s daily life?



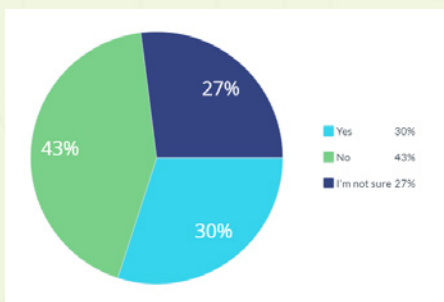
8. In your opinion, what link is there between technology and the “circular economy”?



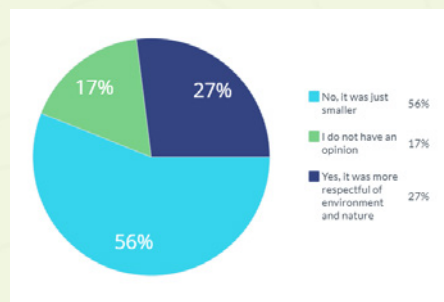
9. Do you think we will be able to change the way we consume so as not to affect the environment and its limited resources?



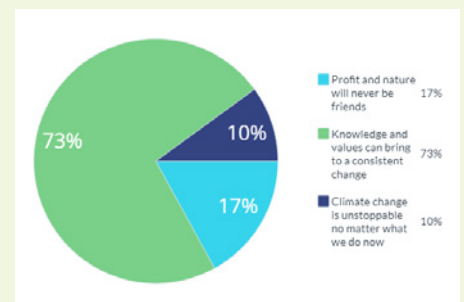
10. Are you familiar with the UN 2030 Agenda or have you ever heard of SDGs?



11. Do you think that the economy in the past was more sustainable than it is today?



12. Which of these 3 statements do you consider the most true and important?





Example of Interview: REUSE

Activity of the interviewee:

Artist

Short Bio:



Work on the Interview: Reuse

Karlo was born on September 18 1986, in Zagreb, where he lived all his life and completed his education. When he finished middle school, he enrolled in and attended the 10th gymnasium. Later on, after four years, he got into the Academy of Fine Arts, where he achieved his masters degree in painting. Starting and taking part in many projects has helped him improve his skills and abilities. He says that the academy is a place filled with important information and possibilities, and a great place to direct you in any artistic expression.

The majority of his latest jobs are murals, which he started to paint more seriously in the last ten years.

1. How did you discover the opportunities related to reuse?

We all want a more sustainable living, and a big part of that would be recycling and reusing. Reuse can be defined as to use again in a different way or after reclaiming or reprocessing. This simple definition is the essence of reuse art. Creative reuse is the art of reworking objects and materials into something different. Reuse allows all things to become new concepts and creations. So, all these things that would end up filling landfills or floating in the seas or rivers, such as glass bottles or plastic bags can become a form of sustainable art.



Mural of Nikola Tesla, First Technical School Tesla

And these possibilities stretch as far as the imagination. Just like us, our waste deserves a second chance. My work gives me a lot of opportunities in reusing old materials, or rebuilding something. I usually reclaim materials that have been discarded or thrown away and then I reimagine, rework or recreate them with existing resources.

Reuse art is a great way of showing appreciation to the environment and it is very original.

This approach brings a lot of benefits, extending the life of materials or reducing the amount of waste that is generated. It is not something new, on the contrary, we have been creating works with old items for a long time. Take for example old fabric, cloths or sheets. Also, Picasso himself made a lot of collages with old newspapers and magazines. Considering this situation, with Covid and the lockdown, I have had a lot of free time so I have discovered that there are lots of things you can do with old tires or plastic bottles. Also, limited financial resources kind of made me realise that I should change some tactics in work.

Internet mostly helps me get my motivation but also creativity. This kind of creative reuse is something you can do at home on your own. I think it can make your day much more interesting and make you feel like you have done something useful. I think that that kind of art motivates people to contribute a bit more to the planet, circular economy and sustainability. It raises awareness, especially among children, and the importance of recycling and also living a greener life. Lots of young people aren't aware of the possibilities and the things they can do for our planet and I think that this kind of approach should be taught in schools so awareness could be raised. People have to realise that we shouldn't throw away an almost new thing because of some stupid reason, but we should try to make something that has a new purpose. There are also financial benefits of reuse - we don't have to buy something new but we can create it and, in that way, cut our expenses, but also help the environment.

2. What do you reuse and how: can you give us some examples of reuse in your economic activity?



Mostly, I use old bottles, tires or parts of cloth, but sometimes even old wood parts that I transform into some kind of everyday objects. But it doesn't really matter what kind of material you use, as long as you have the right goal, you can make something new from anything. Also, materials like paper, cardboard, wood, glass, metals, plastics and rubber seek to be transformed. So, for example, I like turning old wooden boards, beams or pallets into tables or benches and even lampshades.

That kind of furniture people mostly use at home as their everyday objects or in their gardens like some kind of lounge chairs and coffee tables, mostly outside, where it really fits perfectly because it seems natural and it does not pop out. It is much better than these plastic furniture parts that are most common nowadays. Besides furniture, I make picture frames from these old wooden parts and slats by putting them together. I also reuse old canvases. So, it is mostly turning old objects into new ones that I could use. Thus, I mentioned at the beginning, I reuse old bottles and tires. Bottles can be rebuilt into so many things. I sometimes like to do murals made out of bottle caps or ornaments, something like flowers, that I make from the bottles.

Regarding tires, they make awesome plant pots, I typically plant flowers in them and leave them in my garden. Besides, they can be used as a part of a swing. This year, for the first time I have even planted a small garden with tomatoes, cauliflower and zucchinis. There are also lots of examples in the world that look amazing. There is a miniature park in Rotterdam that is completely built from recycled plastic found in the rivers. Built from blocks that float on water, the park is very useful for people, but also for the ecosystem because animals can live and eat there. Besides, reused and recycled products became very popular, so many designers are using that concept.

Some furniture is nowadays being produced from old textile and pieces of cloth. To sum up, everyone can do something like this, it just makes our lives greener and helps the environment. We can all help our eco system just by separating trash and not throwing away old clothes, bedding and other fabric items because great new things can be made out of them. I am sure that we all have some old objects at home, but definitely old tires that can really make a garden much more interesting. I am currently working on a little private project in my backyard, so I am building a little fountain decorated with old glass pieces from bottles.

3. Let's talk about the real impact of reuse on your turnover: economically speaking, what are these figures?

When we talk about reuse you cannot simply talk just about the money. Reusing has several levels and you are not able to count all the benefits that this brings. Money is not the issue here; you cannot look at everything through economy and profit. It just doesn't make any sense to put material over the spiritual needs that every person has. Taking care of our environment, and in that way helping it and keeping it clean, has a positive impact on all of us.



At a Design exhibition following the guidelines of LOOP

When the environment is in its balance, we are too. It allows us to establish a better connection with and within ourselves, experience a greater sense of inner peace and have more higher-quality relations with others around us. So, this reuse project and actual art that I am doing nowadays really makes me appreciate and enjoy the earth and its gifts, or benefits, much more. I am very proud and thankful that my profession allows me to kind of become a part of nature and be a part of, let's call it a healing process that the Earth is put into.

Even if you are not aware of it, you have a deep connection and an intimate relationship with the environment and all of nature, because it is built into us and our psyche as human beings. And, as I said not being aware of it, is where the problem arises. That is why and when people begin destroying and polluting our surroundings. Their actions destroy the eco balance I already mentioned, which some of us work and "fight" for, all because of their selfishness and greed.



At a Design exhibition following the guidelines of LOOP

Not only that it ruins the flora and fauna, it slowly but surely accumulates negative emotions within those people and others around them, which then lead to more and more problems. We should all take a look at how our ancestors admired and honoured the Earth and learn from them and nature itself. It is not about what you do for a living, it is only about good will and creativity. This process does not require a lot of tools or any spending at all.

The profit that is made is actually something much more valuable than money, it is producing zero waste and that brings a feeling I cannot even describe. So, there is nothing to be disposed of and that makes it affordable for everybody, therefore there are no excuses for not reusing. This reusing of waste teaches you a lot of new techniques and improves your skills along the way. Not to forget, it is really fun and at the end of the day, isn't that what life is really all about?



Happy LOOP students :)