

D.T.2.3.2 – Report on the exhibition

The Floating Exhibition (FLEX)



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I. The main concept of FLEX

I./1. Name

The Floating Exhibition refers to an awareness raising exhibition that is capable of traveling waterways and thus to operate on the rivers of the Tid(y)Up project area (mostly the Danube and Tisza rivers).



The Floating Exhibition (further referred as: FLEX) will raise awareness about plastic pollution and will provide scientific based results and ways to tackle this global problem. Attracting people to the river in order to learn about rivers opens up a wide array of possibilities in education, interactive learning and creative play. FLEX is going to be flexible and sustainable by all means. Its basic structure is modular, built of used marine transport containers, enabling "knowledge-transfer" not only on water but also by land. FLEX however, will spend most of its operative time on water, and will adapt to the particular conditions (weather, season, space) of each location. When riverborn, FLEX will fully exploit the proximity of the water in order to communicate its main message.

I./2. Main message

We use too much and reuse so little. As a consequence, the very fresh water resources that our survival depends on became endangered. It is time to make changes, to learn about water, plastics and start recycling/reuse everywhere with a preventive approach.

I./3. A recycled exhibition

To prove its point in the first round, FLEX will be built mostly of reclaimed material. From the steel containers harboring the exhibit areas, through the interior design elements to the actual boat providing the buoyancy, FLEX will use and reuse tons of metal, plastic, wood, paper and glass. This in itself will make a visit worthwhile, but FLEX will use many other ways to reach the required impact on the audience. When designing the exhibition, curators follow a handful rules of thumb.

I./4. Basic design concept behind FLEX

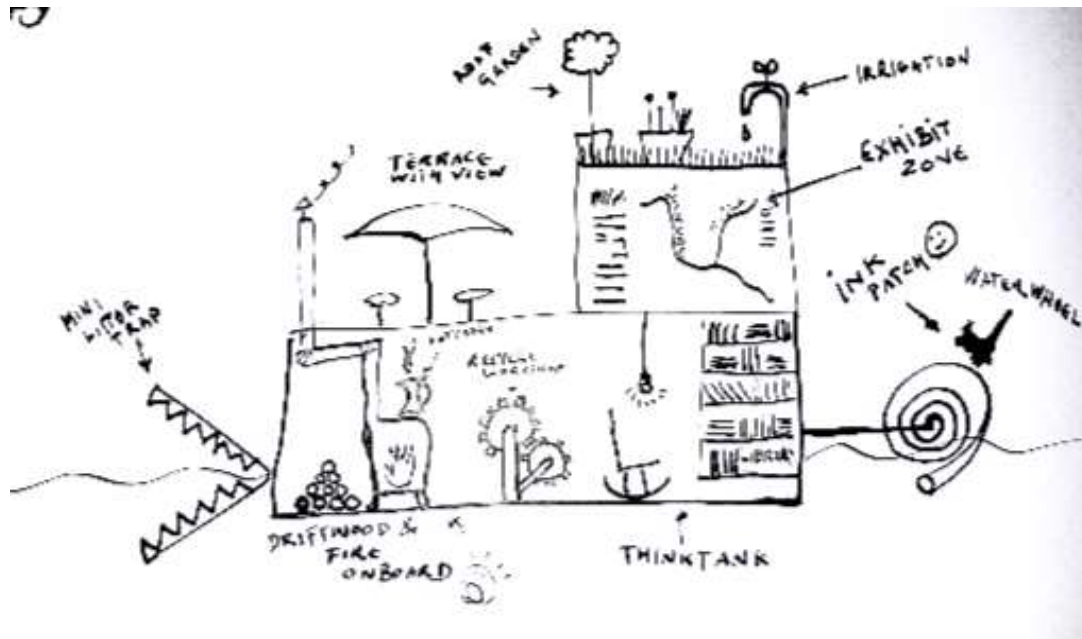
1. Continuous flow of visitors
2. Open spaces
3. Bilateral design
4. Multiple flow concept

The setup of steel containers will enable a continuous, one-direction flow of visitors from the entrance to the exit, which helps FLEX to be a COVID-safe attraction with a limited maximum capacity at a time. This setup will help to pick up messages easily, not to miss a thing and create maximum time and space efficiency. Steel containers are not famous for offering wide spaces but removal of walls and merging boxes in multiple directions will help a lot in this regard. Just like most of the boats and vessels, FLEX will have a definite port side and a starboard side. Port side will always face the shore, deliver key textual messages, graphic elements inviting people to come in and find out more. Starboard side will help to make the necessary connection with the river itself through large windows and outdoor spaces. For maximum impact, FLEX will be operating mainly on the river to prove how many ways we can interact with the flowing water. This multiple flow concept is discussed in detail next.

I./5. Unusual, unexpected elements onboard

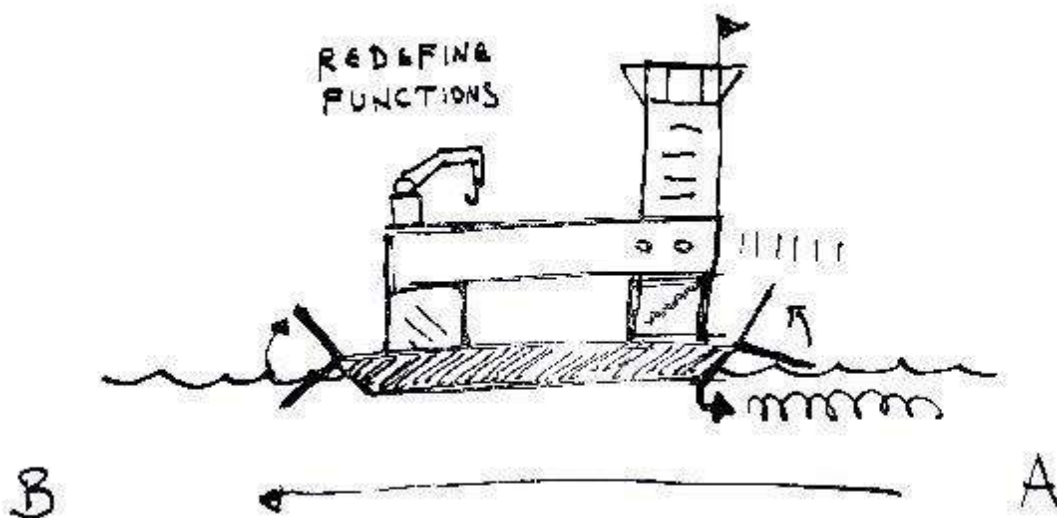
Visitors represent the most important flow through FLEX, but they are not the only ones. The exhibition will be a transit zone for four other things, namely plastic, water, driftwood and last but not the least, wildlife. The idea to invite not only people onboard, is leading to the appearance of some unusual structural elements. First, a litter trap in the front which will collect floating plastic waste and driftwood. The plastic will immediately become part of the exhibit and a secondary raw material for the onboard plastic workshop. The driftwood and organic waste will be used in multiple ways (fireplace, to boil water for hot tea and coffee, artistic upcycling).

Besides plastic and driftwood, water will too, visit FLEX. A simple water mill will pump small quantities of river water enough to irrigate a roof garden for vegetables and herbal tea plants. This will attract bees, insects who will be provided not only with nectar, but with bee-hotels as well to lay their eggs. A small artificial island built on plastic bottles will harbor reeds and so will hopefully attract water birds like ducks when FLEX is on anchor. To make sure these unusual elements work together without unnecessary impact on the environment, FLEX is recycling ideas, materials, and functions.



I./6. Redefinition of functions

Giving a new life, new meaning and new function to a boat is always an inspiring project, especially when we talk about an old Tisza river ferry. These boats were once used all across the region to transport people, cars, livestock across the river. Not anymore. Recently, thanks to bridges and road developments, most of them have become useless and destined to a junkyard. To optimize cost-benefit ratio and minimize the environmental impact while designing the exhibition, FLEX will float on a reclaimed Tisza river ferry, serving as a knowledge transporter in the future. Some of the structural elements will remain intact, others will be redefined and redesigned in order to create the spaces that will make FLEX special.

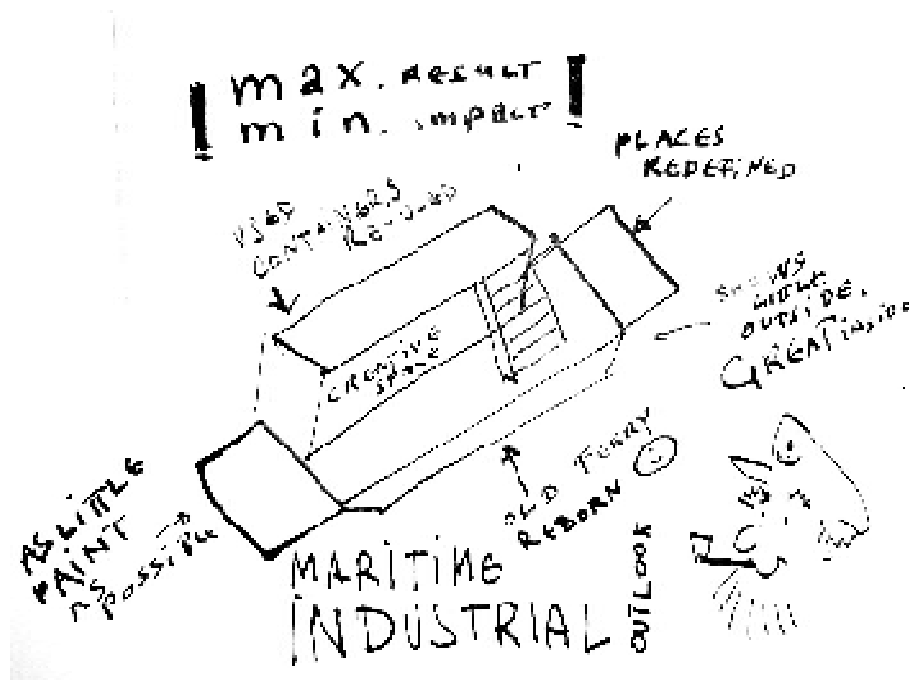


I./7. Spaces on FLEX

The exhibition area will be in the center of FLEX. To make sure that visitors will leave with strong take-home messages, FLEX wants to go way beyond a simple demonstration and invite people to interact, play and recycle, to get a taste of the real plastic pirate experience. Besides that,

FLEX is going to provide an opportunity to relax and think for those too tired for things like this. To achieve this, FLEX interior and exterior areas can be listed as follows:

- Exhibition areas,
- Litter trap / plastic workshop,
- Toilets,
- Kitchen / Café,
- Terrace / roof garden,
- Aisle,
- Own rivershore,
- Crew cabin,
- Wheelhouse / bridge,
- Library / office.
- Green wall



Small budget big impact In a lot of ways, FLEX is going to be small. Budget, boat size, capacity are all strictly limited. The rusty, maritime, industrial outlook will show very little of what is inside. But those who decide to enter, will find out that FLEX is a great place. It will be a great place to experience the beauty, power of the river, to face the risks of its pollution and to find out more about ways to stop the plastic flow and recycle the riverine waste. And after time is up, and FLEX has to move on, it will do so, to see new places, meet new people and welcome new ideas.

II. Floating Exhibition logistics

II./1. Procreation of the final route

The FLEX is an exhibition dedicated to being displayed on water, but many factors made it difficult to realize this plan during the project. The primer difficulties were the prolonged expert opinion and authorization processes. To ensure our ship be not only spectacular but also safe, we first had to comply with the plans, and all required safety, stability, and shipping regulations. Only then could its construction begin. Thus, it soon became clear that the Slovakian exhibition planned for spring would only take place on land. Besides the devastation and tragedies of the war that began in 2022, the fact that we had to cancel the planned exhibition settlement in Subcarpathia is a minor consequence, but it was an important factor affecting the project. Considering all of this, and in consultation with our partners, we agreed that the exhibition series would have four stops in the following order: Košice, Satu Mare, Varna, and Kisköre. In the case of the Slovak, Romanian and Bulgarian locations, the selection of the city was adapted to the area of operation of our local partner organization, since the exhibition was hosted by our local Tid(y)Up partner at each station. During our stay in the cities, we always settled the exhibition in a busy, frequently visited place in the city center, thereby attracting a large number of visitors. During the selection of the site it was always an advantage to be not too far from the river, in order to sensitize visitors to the topic of the proximity of living water. The exhibition in Kisköre, however, was based around the River Rescue Centre (Folyómentő Központ), operated in cooperation with the Naturefilm.hu Society and the Water Directorate. This center together with FLEX was able to demonstrate river cleaning not only in the framework of an exhibition, but in real circumstances.

II./2. Storage, delivery and installation of exhibition elements

Until the time of departure, we chose Sárzasadány, a Hungarian settlement along the river Bodrog, as the place where to store the containers. Here, all the appropriate on-site facilities were provided for moving the containers and lifting them by crane. In all cases, the transport and the lifting of the containers containing the exhibition elements were financed by the host organization. So, as agreed with the Széchenyi Programme Office, we placed the containers designed for a ship on trucks and delivered them by road to the Slovak, Romanian and Bulgarian stations. The most successful tenderer for the procurement of the trip was Zöldérd Ltd., so this contractor organized the transport, took care of its fluency, as well as trained and kept busy the animators and engineers.

Part of the logistics tasks before departure was also to get the recycled plastic items belonging to FLEX. The recycled plastic kayak exhibited in the open space between the containers had to be brought from Kisköre, from the warehouse of the Naturefilm.hu Society and the recycled plastic furniture were obtained from the Budapest University of Technology and Economics, and all of these were put together in the shipment. The latter accessories were the exam works of university students, for which they used melted plastic elements to create garden benches, bookshelves or bird feeders.



Outdoor bench from recycled plastic waste created by Budapest University of Technology and Economics students.



The FLEX containers are lifted by a crane onto the transporting vehicle preparing them for the trip to Slovakia.

Each time the staff unpacked the exhibition on the spot and rebuilt it from its basic elements, they packed it all up to the platform after a few days. The Slovakian tour took place in May 2022, after which the containers were taken back to Sárzasadány, while the Romanian and Bulgarian routes were coordinated and were set up one after the other in October 2022. From the Bulgarian station, the elements of the exhibition were finally taken back to Sárzasadány by land, where all the superstructures were mounted on the hull of the ship, and the FLEX thus arrived at the Kisköre station by water.



FLEX animator set up the exhibition in Košice.

III. Human resources

III./1. Selection

The exhibition itself would have been nothing without qualified staff. They were the animators and mechanics who had the expertise needed to guide groups of children through the exhibition, and they were also responsible for the safe operation of the plastic recycling machines. When selecting the staff, it was essential to have practical experience in eliminating river waste pollution. Moreover, those who had previously participated in environmental education programs had an advantage. The recruitment was announced among the volunteer team of the Plastic Cup initiative of Naturefilm.hu Society in March 2022, and the set number of 20 applicants soon gathered. Among the candidates, we prioritized those who already had experience in international projects and could adapt flexibly to the dates of the events. For the FLEX exhibition series, we selected animators and mechanics who had confident knowledge of the English language or even spoke the language of the host country at a native level, preparing this way to overcome communication barriers.

III./2. Training

The training of the selected team progressed parallel to the development of the exhibition during online preparation and several times in the field. The machinists participated in a safety briefing and basic first aid training, as well as performed test runs on the equipment several times. The animators learned how the stations of the exhibition were linked to each other, studied the related professional background material and developed the management of the group. In addition, the entire team learned to assemble the packed exhibition quickly and re-box it at the end of a stay because this was also their task upon arrival and departure.

III./3. Traveling, supply

The team traveled to the locations by car or plane to farther destinations roughly at the same time as the exhibition was moved there. The planned staff of 4-8 people was present at each location, but due to the larger number of the personnel in the team, they could work in shifts too. This was also necessary during the long Romanian-Bulgarian tour, so that the colleagues could change each other between the 12-14 hour daily shifts. In addition to the traveling, accommodation and meals were also provided for the staff. They received uniforms with the project logo (T-shirts for animators, aprons for mechanics) and a daily wage for their work.



FLEX animators and mechanics on board with the river Bodrog in the background.



FLEX animators and mechanics at the entrance of FLEX.



FLEX machinist at work.

IV. FLEX stations

IV./1. Košice, Slovakia 11-15 May 2022

The first station of the FLEX was Košice, where our project partner, Agency for the Support of Regional Development Košice, n.o. (ASRD), hosted the exhibition. The crane lorry carrying the exhibition elements and the staff who installed all the exhibition arrived on the same day, on 11 May.

The terrestrial FLEX displayed in a courtyard of a cultural center in the downtown of Košice welcomed visitors for three days, between 12-14 May 2022. The elements of the exhibition were placed on blue plastic pallets recalling the spirit of the river. FLEX was presented at all stations. Due to the construction of the ship visitors could follow the journey of the plastic waste of the river and learn the different recycling methods. In the containers, it was possible to visit the photo exhibition of river waste pollution or read books on the subject. Continually restarting short videos took the visitors to the river bank in their minds, where they could follow the river cleaning actions as part of the Tid(y)Up project. The braver ones could also try the kayak made of plastic waste, exhibited in the open air, although it could be used on water only in November in Kisköre. As the stations of the exhibition were all connected in time, the process of grinding and injecting plastic waste made sense, as at the end of the tour new recycled products were made of it by the machinists of the River Trashlab.

On weekdays the exhibition welcomed school groups, while on Saturday we had a family day when everyone could visit the exhibition. We had a lot of visitors, roughly as many as we had had during the two previous exhibitions altogether. On 13 May, joining the initiative of *Night of Museums* in the City, the FLEX was also open during the night. Nearly 400 visitors came to the exhibition during the three days, who were guided through the stations by qualified animators, and native interpreters from our staff helped all those who needed the language.

The program in Košice ended on 15 May, when the staff packed up the exhibition and traveled back to Hungary by crane.

This is a summary video of the exhibition in Košice:

<https://www.youtube.com/watch?v=KiypBTOCGeU>



FLEX animators at work in Slovakia.



In Košice, our Tid(y)Up project partner ASRD hosted the FLEX. In the picture there are their employees.



Visitors could try a recycled plastic kayak in the downtown of Košice.



Captions of the exhibition - displayed in the official language at all stations - are in Slovak in Košice.

IV./2. Satu Mare, Romania 27-30 September 2022

The exhibition toured Romania and Bulgaria one after the other to reduce transport costs and pollutant emissions. On 27 September the team left for Satu Mare where the containers had already been transported by the same transporting vehicle. Our Romanian project partner, Multislava, helped a lot with the basis of the exhibition, while the driver of the transporting vehicle used the crane with masterful skill, so the animators could have time for the accurate placement of the indoor elements of the exhibition. Thanks to the Mayor of Satu Mare, the exhibition was set up in the main square of the city, next to the cathedral, so during its Romanian step FLEX could be visited in one of the most popular parts of the city.



The FLEX in the main square of Satu Mare.

Despite the frequent rain, attendance at the exhibition was continuous, and the weather spontaneously provided the visitors an additional opportunity to get to know each station better. The groups arrived in hourly schedules, with students in various age groups from kindergarten to high school, a total of approximately 900 people. Apart from the pre-arranged groups, many individual visitors showed up and were interested in the exhibition. Native-language interpreters of our partner organization provided the translation, but many Hungarian-speaking groups also visited the exhibition.

The program wasn't visited only by the citizens, but also generated considerable media coverage and high awareness among TV broadcasts. Many newspaper and radio interviews were made and the program could be found on several websites.



Romanian children learn about river plastic pollution with the help of the photo exhibition of FLEX.



Even more people on the FLEX in rainy weather...

IV./3. Varna, Bulgaria 4-6 October 2022

After closing the exhibition in Satu Mare the FLEX was lifted back to the truck and was headed for Bulgaria. This was the first time when FLEX was put on water, -although non as originally planned- because despite the overland route, crossing the border river had to be done by ferry. This is how it happened that FLEX touched the water of the Danube after all. In the meantime, the engineers and animators of FLEX stopped in Cluj-Napoca on their way to Varna, where as a way of rest they cleaned the small local stream from tire waste.

FLEX was stationed in Varna, Bulgaria, between 4-6 October, where thanks to our project partner, Institute of Oceanology – Bulgarian Academy of Sciences (IO-BAS), the exhibition was completed by a yellow submarine. The double experience attracted many visitors. More than 600 children visited the exhibition during these three days, often up to 100 heads at a time. For this location more interpreters were needed, who translated our animators not from Hungarian, but from English. Typically, in the morning FLEX was visited by schoolchildren while in the afternoon till 18:00 families came to know more about recycling. As in Romania, the program generated considerable media coverage, and many TV and radio broadcasts were made with the animators of FLEX.



The FLEX exhibition with the submarine in Varna



The representative of our Bulgarian partner and host, IO-BAS, in the yellow submarine.



The representative of our Bulgarian partner, IO-BAS, gives a television interview in front of one of the outdoor stations of FLEX.



FLEX is a dog friendly place.



More than 100 visitors at a time at the Bulgarian station.

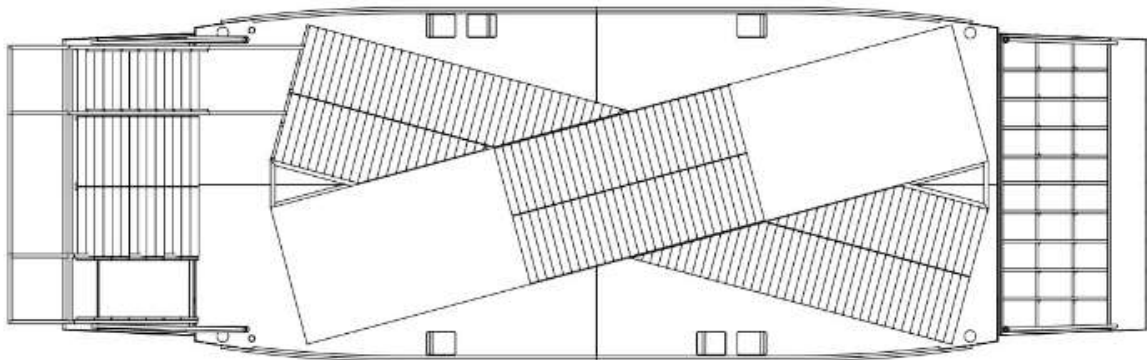
IV./4. Kisköre, Hungary 8-9 November 2022

FLEX finally became a truly floating exhibition in Sárzsadány, Hungary, when it started off the river Bodrog equipped with all the permits and the containers returned from the foreign trips. After it traveled a few kilometers on the river, it joined the river Tisza and finally docked in the Tisza lake in Kisköre.

However, this required long and organized logistical preparatory work.

By lifting the containers onto the hull, from the top view, FLEX acquired the eponymous X-shape:

Floating mode, the lightweight X-concept



The FLEX can't move by its own, for the locomotion a tugboat is required. For the towing we received help from the Water management and entrepreneurs. The FLEX had to take 28 kilometers on the river Bodrog, and other 140 kilometers to Kisköre after the tributary flood into the Tisza at Tokaj, so 168 kilometers in total. It completed the distance in three days with the help of two different tugboats. The three routes were the followings:

day 1: Sárazsadány-Tiszalök

day 2: Tiszalök-Tizzacsege

day 3: Tizzacsege-Kisköre

In addition to the towing, the boarding and the guarding during the night also had to be organized. In Kisköre the Flex docked at the winter port of the Water Management where the River Rescue Centre of the Naturefilm.hu Society is also located. It was anchored next to the Plastic Boat, which was the biggest junk boat so far. Now this boat was dwarfed by the FLEX, that was waiting for the exhibition event connected to the closing conference of Tid(y)Up project.



Fixing the FLEX to the tugboat.



The FLEX moves on the water towards its destination, Kisköre, with the tugboat behind it.



The anchored FLEX in the port of Kisköre. Next to it PETényi, the junk boat and in the background the river waste processing plant of the River Rescue Centre.

The Hungarian station of FLEX was also the closing event of the Tid(y) Up project. The project partners came for a two-day conference between 8-9 November and could visit the exhibition realized on the ship with other visitors. The animators and mechanics trained in international waters now presented the exhibition to visitors from different countries, having different experiences (experts of the Water Resources, waste recycling, schoolmasters, etc.) in the home-field. The entire partnership of the Tid(y) Up project visited the FLEX, which was now provided with English captions and the staff communicated with the visitors in English. FLEX welcomed 90 local school children that day in Kisköre besides the Tid(y) Up group.

The covering elements made from recycled waste have already been installed in the ship, such as the surface of the stairs made from plastic planks, so visitors could also check them. Some people have hosted the FLEX before, and now visited the exhibition for the second time, while others were on its board for the first time. Our partners visited the photo exhibition, the river rescuing cinema, and could check the literature on waste recycling in the relaxing corner made comfortable by the bean bags prepared from recycled banners. Among the exhibits, in addition to the recycled plastic elements, the guests could also find glass bottles made from former glass waste and wooden spoons made from driftwood.

With the help of the animators, visitors followed the path of a plastic cap from grinding, to melting, during injection and the final molding. Like the children who visited the FLEX exhibition series, our adult project partners also received a recycled plastic ruler and a carabineer as a gift. Sometimes they watched the process of recycling plastic waste with as much wonder as the children.



Presentation of floor tiles made from recycled plastic on the board of the FLEX.



The spacious exhibition room on the hull contains tools made from different types of waste (plastic, glass, driftwood).



Tid(y) Up project partners get to know better the FLEX exhibition.

What is a presentation without action, so a part of the event was a presentation of selecting river plastic waste on the field, with the support of the River Rescue Centre. This is the location where Hungarian volunteers sort the waste into recyclable and non-recyclable fractions. There is a lot to do throughout the whole year, adapting to the river's flood and to the amount of incoming waste, so there was waste to be sorted even during the event.



Tid(y)Up project team, the FLEX in the background, and flood plain waste in the center

V. The future of the FLEX

The Tid(y)Up project on the FLEX was concluded by the event in Kisköre. Its staff did the last maintenance works and prepared for the winter both the ship and the exhibition elements. The latter were systematically packed and put in weatherproof containers. The ship was de-energized and safely moored. In the River Rescue Centre, next to which the FLEX is anchored, work continues even in winter, so it will be under careful supervision... and in the spring, the new exhibition season starts, when new interested people appear on the banks of the river Tisza. The role of the FLEX will continue to be exhibition, education and environmental education. The project team plans to deliver the FLEX to the partner countries by water, but this has additional financial costs, so we will try to put up the money for it in the future. FLEX has the possibility to be hosted in Kisköre, where it can continue to receive its visitors. Furthermore, Szolnok (a Hungarian city) could also be a potential long-term hosting location, where the ship could be moved with low budget, also with the help of Water Directorate. However, as long as it is anchored in Kisköre, it will serve as a demonstration place and as a community space, raising the next river rescuers of the future.



A representative of the Water Directorate providing mooring and winter rest for the FLEX in Kisköre and an experienced FLEX machinist on board.