



EDINBURGH TOOL LIBRARY

Edinburgh Tool Network

CCF - 5541

████████████████████ *Tool Network Manager*

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EUROPE & SCOTLAND
European Regional Development Fund
Investing in a Smart, Sustainable and Inclusive Future

I. Starting Point

The start of the Tool Network

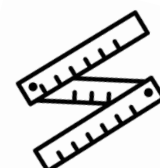
The Edinburgh Tool Network was a result of the Tool Boxes project we held the year before. In this project, three book libraries in the north of Edinburgh hosted a 'Tool Box' that had an extensive selection of tools available to borrow. Once a week, volunteers would run the tool library session in the new location.

The three book libraries that we collaborated with were Piershill, Craigmillar and Portobello. The Portobello Library was very successful in getting the community involved and attaining new members. It was due to the strong community involvement in Portobello that we decided to open a second permanent base in this seaside neighbourhood. The Portobello location is easily accessible for the Piershill, Craigmillar and Duddingston community giving more individuals in Edinburgh access to the Tool Library services.

The Edinburgh Tool Library started in Leith and has developed a strong community base in that area. The requests that we hear most often from individuals is for more Tool Libraries across the city. Our long term ambition was then and still is that every resident of Edinburgh can comfortably access a Tool Library by bike or on foot. Having another permanent base in a different part of Edinburgh was therefore a logical next step. Our members numbers were growing and expansion of workshop space was therefore needed to accommodate the growing numbers.

Since the Tool Library's inception, alongside our tool-lending service, we have successfully run 50 community projects. In every project we engage with, manage and teach a diverse group of people, often from out with our pool of members and volunteers. We always work to budget and aim to maximise our resources, working in the most environmentally-friendly way we can.

The Tool Network was therefore a necessary next step to making our community engagement more a constant element of our core services. We have refined our approach to community engagement and our understanding of how to make complex and new projects accessible and exciting for everyone. All of our projects have been driven by a community need, whether we are approached by a group or the project is voted for by our members and volunteers in one of our Volunteer Assemblies.

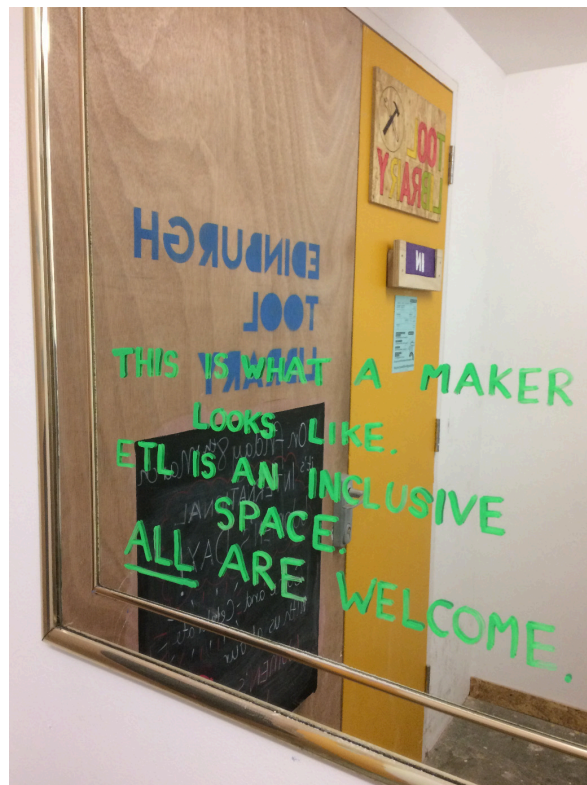


II. Headline Achievements

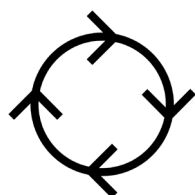
The Tool Network achieved in this project year **84 tCO2e** lifetime carbon savings. We have diverted **4,028.48kg of tools** from going into landfill by enabling our members to share tools, rather than buying them new. In total we saved **11,847.47kg** of reclaimed materials from landfill by giving people the skills to make new items out of them.

This project year we designed educational materials that meet the Curriculum for Excellence learning outcomes. Overall we have trained 242 young people between the age of 12-17 in climate literacy.

Setting up the Portobello workshop, our second permanent base, and running a successful programme of classes and open workshop sessions is another main achievement. The programme of classes, among them the Women's Woodshop, has played an important part in showcasing that the Edinburgh Tool Library is an inclusive environment that challenges dominant male joinery & DIY culture. Overall opening the new base has increased our reach and has given more individuals the opportunity to make use of our services.



Portobello Tool Library Entrance



III. Outcomes

CO2 Outcomes

OUTCOME 1: By increasing our Tool Library sites from four to six, we will enable over 1,000 new Tool Library members to share tools, rather than buying them new, as well as being able to divert 1200kg of tools from landfill, reducing CO2e by over 2T each year.

By increasing our Tool Library site and opening the new Tool Library & Workshop in Portobello we have gained 808 new members. The members are spread over the city but the online publicity by opening a new site and offering different activities like courses and workshop week has helped raise the profile of the Edinburgh Tool Library in Edinburgh.

This year we have diverted 4,028.48kg tools from landfill. Among these are 2033.61kg in hand tools and 1994,87kg in WEEE. This is more than triple the amount we had estimated.

OUTCOME 2: We will increase the number of our current members who have repaired an existing item or made something from reclaimed materials by 40% - 320 individuals. We will aim to have 50% of all new members – an estimated 200 individuals - reuse or repair a household item within their first year of joining. We estimate that this will save 7.74T of CO2e each year.

By increasing our open workshop sessions and taught workshops at the Portobello location we have had an estimate of 481 individuals repairing an existing item or making something new from the reclaimed materials we have free to use in the workshop. This outcome has been exceeded.

Members have made planters, tables, chairs, shelving and repaired broken garden furniture. Overall members rather make something new out of something old. Our volunteers are always there to assist in any of the working processes.

As a membership to the Tool Library comes with access to two fully equipped woodworking workshops, members are having a strong interest in our basic woodworking / furniture making workshops. These are the classes that are sold out in a day. In total we have run 5 basic woodworking courses, 26 classes and 2 workshop weeks.

The workshops used hand and power tools available to borrow from the Tool Library, so that people can easily transfer the skills into their home environment.

OUTCOME 4: We will encourage the reuse and reclaiming of materials, particularly timber by giving people the skills and the tools required to create items from it. Based on the amount of reclaimed materials saved this year, we estimate this would save 21.78T CO2e a year.

In this project year we have diverted 11,847.47kg wood from landfill and have reused these materials in our workshop programme and by our members during open hours.

As the Edinburgh Tool Library is known for reuse, the fact that all our workshops use reclaimed materials is not surprising for our members. New members are surprised when they see the collection of wood that we encourage them to use for free. An example of this, that a new member came to use the workshop for the first time, found some timber and made in two hours something new from it. The member is happy to have used their own skills to make something instead of buying it or the material new.

As we constant receive and collect wood donations it will be something that we can keep offering to our members. Overall for the Tool Library this has been an outcome partially delivered. We had expected to have saved a larger amount. This target depended on having a second base open to start offering reclaimed timber in our workshop. As we first needed to construct and build the new workshop we couldn't accept many donations in that period due to limited storage capacity.

OUTCOME 5: We will teach over 200 people how to fix and maintain their bicycle, regardless of the condition or age of the bike, helping increase the lifespan of their bicycles and encourage people to cycle more. We estimate this will save 10.27T of CO2e each year.

The CO2 outcome we didn't meet was that we would teach 200 members how to repair and maintain their bicycles. We ran five bicycle repair workshops. Of them were three basic bike repair and two specialized bike workshops. We wanted to offer a variety of classes to reach different cyclist audiences.

We started a collaboration with the charity Bikes for Refugees. They are a volunteer led community project who repair and upcycle donated bikes for New Scots. We have teamed up with this organisation and created a series of bike repair workshops. In this collaboration, four New Scots and four ETL members learned the skills to repair bikes for someone who really needs them. We've run three collaborative workshops on bike repair.

In total we taught 54 individuals how to repair and maintain their bicycles.

This outcome has been difficult to reach as bike repair is not what individuals initially associate the Tool Library with. New members join us because of the access to any kind of tools and a woodworking workshop. The classes that they want to participate in are mainly related to woodworking. Aside of that Edinburgh has plenty of accessible bike repair workshops being offered by bike shops (eg the Bike Station).

On the other hand as with many other outcomes the period in which we delivered our CCF activities were in the winter period. For many people, cycling is an activity mainly enjoyed in the spring and summer period. This became very apparent in the sign up process of classes. The basic and specialized bike repair courses took longer to fill up and needed more promotion than any of the other classes the Tool Library offered.

The Bikes for Refugees classes on the other hand quickly filled up, and this shows that members of the Tool Library find our community aspect very important. Working together to making something for others. We're optimistic that if we continue our bike repair programme over the summer it would attract more participants.

In the last month of the project we changed our strategy and instead of offering classes we created a little bike station where individuals can repair or maintain their own bike. This fits more in the character of a multi-use workshop.

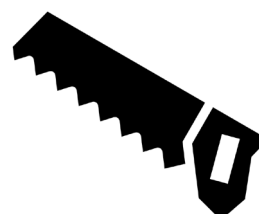
Community Outcomes

OUTCOME 1: By increasing our Tool Library sites from four to six, we will enable over 1,000 new Tool Library members to share tools, rather than buying them new, as well as being able to divert 1200kg of tools from landfill, reducing CO2e by over 2T each year.

An outcome that we expected to have reached with opening a second permanent base was a 1000 new members. With a total of 808 new members we are not far behind reaching that target. Bearing in mind that this target was set for a two year project application and we were only operational for nine months, we were in good track to reaching this target.

When setting up our outcomes a factor that wasn't taken into consideration was that opening a new location doesn't happen overnight. We finished the construction work in three months and opened the workshop and library beginning of August. Our full workshop programme started in September. From then our new location became more visible and known to the public.

As our project was mainly active in the autumn/winter period, we are aware that this has influenced new memberships. In previous years the largest rise of memberships was during the spring and summer period when people want to borrow tools to work in their gardens and start projects around the house.



OUTCOME 3: We will improve the carbon literacy and environmental awareness amongst 300 12 -17 year olds across Edinburgh.

Our main community outcome was to improve carbon literacy and environmental awareness among 300 young people (age 12-17) across Edinburgh. As this was Edinburgh Tool Library's first programme with young people, the positive response we received from the youth organisations, schools and young people made this a positive community outcome.

The Young Tooligan's Programme has worked with 242 young people across Edinburgh. Among them there are 41 young people we reached through youth organisations, and 201 young people through our design challenge workshop in four Edinburgh high schools (Portobello High School, Broughton High School, Trinity Academy, George Harriot's School).

The Young Tooligans Programme has been split into two sections - Schools and Youth Organisations, each with a distinctly different approach. In schools we focused to explore design thinking, the circular economy, carbon literacy, climate change and team building. In youth organisations we worked with a more open approach, collaborating with the organisation in developing a workshop which allowed the young people to come together to build something useful for their centre or community.

In both the schools and the youth organisation programme the workshops have some shared elements, in which we explore greenhouse gas emissions and the effect of climate change to life. Both programmes have been successful in relation to engaging with the young people and giving them the tools and skills to work around climate change issues and how to think creatively to find solutions.



Chairs at George Harriot School

IV. Activities and Climate Literacy

Tought workshops

At the Portobello Workshop we ran 26 tought workshops. We offered a diverse range of workshops, from basic woodworking and tool maintenance, to basic DIY skills and bike repair.

The workshops on furniture making and basic woodworking only used reclaimed materials. We always start a workshop with a little introduction on the materials and where they have come from. The donations we receive always come accompanied with a history, from school desks to beautiful oak flooring of a barber shop. This narrative helps in communicating about why reuse is important and makes the material become more alive in the multitude of options you have in making something new out of it.

Reclaimed materials will always need a little bit more hands-on action to clean it up, but with the right knowledge and tools that becomes an easy job. By making the participants familiar with tools and finishing techniques we have given them the know-how to continue any other reclaimed material projects. Participants of our classes return to the open workshop sessions to take some of our free materials for a new project.

Main aim of this years project was to encourage an equal behavioural change between men and women. DIY and joinery culture are still overwhelmingly male dominated environments, and it was therefore important to create inclusive spaces in which women and non binary makers feel welcome and have a space to experiment and to learn. The Portobello workshop has been very successful in creating this space. We offer women's woodshop classes in which they learn basic and advanced joinery skills. During the open workshop we see more women participating then in our other workshop venue.

The participants of the Women's Woodshop have said in their questionnaires that the classes thought by a women and surrounded by other women created a stimulating learning environment. They mention that the courses have made them more confident as a maker, that they feel more skilled using tools and having the basic knowledge to start with other upcycle projects. In all our workshops we encourage peer to peer support and learning from each other. In the women's woodshop comradery and support from the group was an important element in the success of these courses.

On International Women's Day we offered a free taster class in basic woodworking and an evening open workshop session. In the future we will continue our women's only open workshop sessions to stimulate an environment of different learning attitudes and support.

Workshop Week

Aside of our courses we started Workshop Week. A week full of workshops in both workshop locations. The programme started as a fun and original method to attract new members and make our class and course programme more visible.

The first workshop week in November (13 Classes) was a success, as well as the second week in February (7 Classes). The workshops delivered in this week focus on small furniture making projects that can be accomplished in three hours. Participants have made chairs, stools, planters, mid-century modern plant holders etc. In every course we teach them basic DIY skills, and how to make something from reclaimed materials. The narrative of reuse and sharing is constantly being reinforced.

Bikes for Refugees

For our bike repair programme we collaborated with the charity Bikes for Refugees. They are a volunteer led community project who repair and upcycle donated bikes for New Scots. We have teamed up with this organisation and created a series of bike repair workshops. In this collaboration, four New Scots and four ETL members learned the skills to repair bikes for someone who really needs them. In total we have run three workshops.



Young Tooligan Programme

The Young Tooligans Programme has been split into two sections - Schools and Youth Organisations, each with a distinctly different approach.

The Youth Organisations we have collaborated with are; Canongate Youth, Trinity Academy, Citadel Youth Project and LGBTQ Youth Scotland. The programme we developed for the Youth Organisations had a more open approach, in which we collaborated with the organisation to develop an interactive workshop that allowed young people to come together to build something useful for their centre or community.

When developing the design programme for the schools it was our strategy to create a programme which reflects the goals of ETL in terms of supporting sustainability, circular economy thinking, carbon literacy and creativity in our community. To create programmes that have a long lasting legacy they have to be an integral part of the ethos of the organisation, as this is how individuals and groups know and remember us. The school programme has been very successful for this.

Community build

To promote sharing and the strengthening of communities the Edinburgh Tool Library organizes community build projects. These projects are split in two categories; Workshops & Volunteer Assembly.

In our course programme we offer free woodworking / furniture workshops where they build something for the community. The participants learn the skills during the workshops to make chairs or planters, and can be proud of creating something that benefits the community. This year we've run a planter workshop for the Leith Theatre and a ramp workshop to make more café's and shops in Leith accessible.

Our Volunteer Assembly projects give the community the opportunity to pitch a good idea that could benefit the people, place or planet of their local area to the volunteers and members of the Tool Library. The winning projects will receive two full days of volunteer power, equipment and money to build the project of their dreams.

This year's winning project was a community group in Duddingston who wanted to convert a disused byre into a community hub to grow and sell vegetables, and hold events. In the two days, 30 volunteers build garden furniture and a little outdoor shop for the community to sell their organic vegetables and fruit.

The project made use of 1.25 tons of wood from a shipwreck, otherwise destined for landfill; the plastic roof of an old bike shed, and half a ton of wood from a variety of sources, from the Edinburgh Festival, old shop fittings, and broken outdoor furniture. The only items purchased for the entire project were screws and nails. The total build fixed approximately 3.2 tons of carbon that would have gone to into landfill and back into the atmosphere.

Link to video of the two day volunteer build:

https://vimeo.com/298027286?fbclid=IwAR0ZgBprgqR5KrHmQrqVFie_5bW8Mi9FGly-oNfMpOIBFG7iXBokeQHL6tCs



Volunteers at the Volunteer Build in Duddingston

Climate Literacy Strategies for our Young Tooligan Programme

To engage young people with climate change and greenhouse gas emissions we recognised that it is important to make the learning as fun and interactive as possible. We also recognised that to capture the learning it was necessary to try different approaches from the standard form filling, to get an accurate assessment of what the young people took away from the workshop.

We have come up with a number of ways to do this across both of these aspects of the Young Tooligans Project: Introducing and exploring Climate Change & Greenhouse Gas emission and assessing whether young people have gained knowledge or new perspectives in the workshop.

Quiz: What do you know about Climate Change and What have you learnt today - same set of questions, at the beginning of the workshop and at the end.

Everyone in the group is given wooden paddles which are green on one side and red on the other. It's explained to them that they show Green for Yes or True and Red for No or False.

To begin with the group are asked a series of control questions so they get into the flow of answering the questions quickly without thinking too much or copying each other. The facilitator then asks a series of questions about climate change, reuse & making which assesses what prior knowledge the group has. The questions directly relate to the workshop they are about to do. At the conclusion of the workshop the group is then asked the same series of questions to assess the difference.

Game: How long do a selection of household waste materials take to degrade, and which greenhouses gasses do they emit.

This is a game where the group is presented with a selection of objects together they must decide which time span goes with which object. The game revolves around the groups prior knowledge and different conversations are started around why objects take longer than others, and comparisons between materials. Once the initial selection is matched with time spans two sets of objects are separated. The group is asked what the differences are, and how that affects how long they would take to degrade. Finally the group is split into pairs, each pair is given a sheet of paper which explains the four main greenhouses gasses and each pair chooses an object. The group is then asked to name which of the greenhouses gasses the production, transport or disposal of their object produces. The answer is all of them, so it's a nice exercise as there are no wrong answers. As a conclusion the group are asked if this is surprising to them or something they knew already.

Activity: Nail Board Opinion Graph

A board is pre prepared with four sections, with each section split into a 'Agree' and 'Disagree' section. This creates a visually interesting star pattern. Each section is assigned a clear Agree/Disagree question which relates to the workshop. After the participant has engaged with the workshop, they are given four large flat topped nails and a hammer, asked to write their initials on the top with sharpie, and then answer the questions. The graph ends up as a visual representation of the participants opinions across the course of the day. This is particularly useful in drop in workshops, where there isn't a clear group who starts and finishes the workshop at the same time.

The ins and outs of the design workshop:

The material driven design workshop focused on sustainability and how our future raw material shortages will need a creative - out of the box - thinking approach when it comes to how we use our materials. The classes were split into smaller groups and were each given a box with waste materials and challenged to design and construct a working chair from it.

The workshop starts with a presentation on climate change to set the context, we then introduce the materials landfill game. This game was a good warm up for the groups to start thinking about how long it takes for materials to decompose and how much greenhouse gasses they emit. It got them talking to each other, asking questions and getting hands on with some materials. The answers can come as quite a shock and surprise to many of the students.

After this interactive game each group receives a different box of materials, made up of a variety of materials which we chose to be a mix of household waste which young people would recognise as well as workshop waste which we could relate back to Edinburgh Tool Library's activities. All of the materials would otherwise have gone into the bin or been recycled. We made sure there was a wide variety of materials, from things which were strong enough to provide structure to pieces which could be used to join pieces together.

Then the groups are given 15-20 minutes to construct their chair, after approximately 10 minutes they are given a design handouts and asked to answer questions in preparation for the presentation to their peers. In these sheets they are asked questions about the materials used in their design and the sustainability of it. The building of the chair is the core of the workshop, all of the preparation up to this point has been building towards the groups understanding why they are building the chair. We have encouraged them to think differently about the materials which are commonly considered as waste.

At the end of the workshop each group will present their chair and test if they can sit on it. This is an essential component to the workshop, it gives the session momentum and purpose. The pupils hold each other accountable and there is a healthy level of competition where they are motivated by each other. They are given the opportunity to present their ideas, ask questions and celebrate their peers.



V. Learning & Reflection

This year CCF project ambitions came unavoidably accompanied with many challenges. In many regards the challenges we faced, were necessary and brought our attentions back to the ethos of the Edinburgh Tool Library.

As many of our outcomes were dependent on setting up this new permanent base there was an initial rush to get the space ready and working. From the beginning of the process we had invited the Portobello community, members and volunteers of the Edinburgh Tool Library to the new space to discuss the design plans and receive suggestions to create a space that is as inclusive as possible. Creating the space that the community was after, and to open as quickly as possible didn't go hand in hand.

The first workshop space that the Tool Library opened in Leith was a very slow and organic process, where the space wasn't finished when opened to the public but presented as a space in process. Even though both spaces originated from the same organization it became early on apparent that the Portobello space would benefit from a different more structured process. We decided to extend the building period and have the space in full working condition, conform to health and safety regulations when first opened to the public. This resulted that our targets of getting our members to make and repair items was being put on hold, but on the other hand meant that we could provide all the activities we had set out to bring in this project year.

Another challenge we faced this year was when setting up our Young Tooligan Programme. As this programme was the first youth initiative from the Edinburgh Tool Library, it needed more setting up work and elements we had thought would work well in this programme were in practice not effective.

At first the programme was designed equally between youth organisations and schools. After a climate literacy workshop there would be a building element that would benefit the schools and youth organisations. Initially, we had a lot of difficulty getting our workshop to the right people at the schools, as without a specific contact it was difficult to get through the initial stages of phoning the school or emailing the head teachers.

To change strategy, we decided to develop a different school programme that would make the Edinburgh Tool Library more visible as educators. There are very strong parallels between the ETL's ethos, and a popular environmental education learning model known as the Head, Heart, Hand learning model, which promotes sustainability and positive behaviour changes. The Head, Heart, Hand learning model is based on the concept that significant learning and behaviour change occurs when those three aspects are integrated.

The design challenge workshop we developed incorporated these elements and fitted in the school curriculum for excellence. We contacted the Eco Schools programme and set up partnerships with them. The initial challenges made us rethink the programme we had in mind and redevelop our educational work. This has made the school programme stronger, and the guidelines we had set up for this will help shape future educational work the Tool Library will undertake.

A final challenge was our bike repair programme. This was the first time the Tool Library offered these workshop services and even though we had initially thought it would easily fit with our other activities and the ideas the Tool Library holds valuable. In practice the bike repair programme wasn't successful in our community. There were different factors that contributed to this. One of them was the autumn / winter period in which this year's project took place, not the best timing for bicycle related activities.

Overall the Edinburgh Tool Library community is first of all interested in tool sharing, woodworking and community building activities. To make the bike repair activities fit better with the ethos of the Tool Library we adapted the programme and started a collaboration with the charity; Bikes for Refugees.

The element of building something for someone else while learning new skills worked well. Members were very interested to be involved and help someone who needs it more. These classes did have their own challenges, working with a variety of New Scots meant that translation was an issue but during the workshops the participants found inventive methods to communicate with each other.

Even though the outcome of teaching 200 individuals bike repair we didn't meet, we did develop an important collaboration and created a programme that worked for the legacy of the Edinburgh Tool Library.



Bike for Refugees - Bike Repair Workshop

VI. Finance & Administration

The capacity of the project regarding volunteer and budget management has grown. In the CCF funded year we have developed new activities at the Tool Library that required a systematic approach. Bookings for workshops is a good example of this. Finding methods that work effectively for a charity has been an interesting learning curve for the team.

Our initial budget changed, and we had to reprofile various budget headings. Including one for the purchase of an electric van. Initially we had budgeted to lease a van, but in terms of the longevity of the project we decided it would better fit the future of the Tool Library to buy one. Overall this decision didn't impact our overall budget and the activities we wanted to deliver.

At the end of the project year we decided to improve the workshop space for the legacy of the project after CCF. This hadn't been in our initial budget and we had an overspend in this budget heading.

VII. Sustainable Legacy

The sustainable legacy of this year's CCF project has come in various ways. First of all, the second permanent base we have build and what has become such an important element for the Tool Library members community, will stay in place. We are developing a financial sustainable model, in which the core services of the Edinburgh Tool Library will be covered. This model includes, a workshop credit system and hot benching model for days the workshop is not in use. We're planning to implement this model in May/June.

The Edinburgh Tool Library has always run with the amazing support of volunteers. We improved this year our volunteers journey to make their support more sustainable and constant. Regarding the future we have trained our volunteers to be able to run classes and our open workshop members sessions. For each class we have run this year, we have created a lesson plan and trained our volunteers to teach these classes. This will make it possible to continue our new programme of workshops in the future and create a stream of revenue for the Edinburgh Tool Library.

The electric van was an important legacy purchase, as this will make it possible to be as environmental friendly and cost efficient in delivering our projects and collecting wood donations in the future.