



SOBRIETY4YOU TRAINING CURRICULUM

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FOREWORD

Sobriety4You aims to raise energy sobriety & ecological change among the young population by creating dedicated online trainings targeted to raise awareness and readiness in those topics. We are facing long-lasting environmental change and rising energy costs to what especially young people need to be prepared and adapt. We observed high interest rate of youngsters to change the world by adapting their behaviour, we would like to provide tools and ideas for the young people to promote the energy sobriety for preventing the excessive usage of the energy.

This curriculum is developed to empower young people and youth professionals with the necessary skills to face upcoming challenges and increase the young people skills and transversal competences making them responsive to energy saving and ecological challenges. The curriculum is consisted of four parts :

- What is Energy Sobriety?
- Training Development for Young People and Youth Workers
- Training Module for Young People
 - Energy Efficiency
 - Energy sobriety
 - Renewable energy adoption
 - Sustainable consumption practices.
 - Case Studies
 - Sample Training Program for 20 hours (3-day program) for Young People
- Training Module for Youth Workers
 - Awareness Raising on Energy Sobriety
 - Training Development and Facilitation
 - Case Study Development and Usage of Case Studies in Training Activities
 - Sample Training Program for 3 days for Youth Workers (Training of Trainers)
- Evaluation Methodology for Training Activities with Young People and Youth Workers

With this training curricula, we aim to increase the young people and youth workers awareness on the energy sobriety and internalising the sustainable practices in their daily lives to increase the resilience towards to the upcoming challenges due to climate change.





WHAT IS ENERGY SOBRIETY?

Energy sobriety consists of several strategies from reducing the individual energy consumption to avoiding creation of excess and waste. To do so, we as humans, should find ways to reduce our energy consumption from lowering the heating to disconnect the unused appliances, using public transportation or car sharing (Teréga, 2024). In addition to that, often energy sobriety is mixed with the energy efficiency though, energy efficiency seeks to reduce the consumption by using better equipment by design. Energy sobriety focuses on the consumption of the individuals and promotes the intelligent consumption of the energy.

Energy sobriety requires voluntary involvement and making planned reductions in the energy consumption. On the other hand, we can basically say limiting ourselves to reduce out energy consumption. Within this handbook, we try to provide non-formal educational activities for young people and youth workers to teach these practices and create awareness on the energy consumption not only individual level, but as well in organisational level.

According to Veolia (2024), energy sobriety requires profound changes in behaviour whether individual or collective as it requires a sacrifice from the comfort for some, a change of attitude to use public transport for other. It can be considered as an "effort" to increase the constraints and restrictions in our lives, but it can be considered as "sufficiency" which means that we have to consume what is needed without unnecessary overuse as a result, reducing the demand for the energy and greenhouse gasses.

According to Dametis (2024), the energy sobriety requires four pillars. These are :

- **Convivial sobriety** involves the sharing and mutual use of equipment.
- **Dimensional sobriety** concerns the proper sizing of equipment according to their conditions of use. This involves adapting machine operations in industries to actual needs.
- **Structural sobriety** consists of creating conditions within the organization of space or activities that promote consumption moderation.
- **Usage sobriety** focuses on the proper use of equipment to reduce consumption.

Convivial sobriety encourages people to use sharing the common equipment so that we can live with less rather than more. To achieve the convivial sobriety, we might need to consider beyond the well-known 3Rs(Reduce, Reuse and Recycle) but, re-evaluate, reconceptualise, restructure, relocate and redistribute (Demaria, 2021).

Dimensional sobriety goes hand in hand with the energy efficiency, the usage of the equipments and adopting them to the necessary needs of the individuals concerning to their conditions of the use. Using small cars, screens or devices to reduce the consumption of the materials during the reproduction of the devices (negaWatt, 2022).

Structural sobriety promotes the extension of the lifecycle through repair and reuse of products to reduce the demand of the market by promoting second-hand sales and resourcing. It promotes the circular economy practices (negaWatt, 2022). In that sense, the energy sobriety promotes the usage of the small devices rather than the big ones unless it is needed.

Usage sobriety aims the individuals to promote the proper usage of the electric as well as the fossil fuels for reducing the consumption among the individuals. The individuals can contribute

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to the sobriety plans as they have the capacity to reduce their emissions by avoiding several practices such as air travel, using public transport, using electric cars etc. (CTG, 2022).

Energy sobriety has key concepts deriving from energy efficiency, behavioural changes, renewable energy, policy and regulation. These key concepts met in one certain goal reducing the energy consumption by employing several strategies. In addition to that, it requires a systemic change to help minimize the energy use while improving the overall energy efficiency (negaWatt, 2022). In this aspect, the energy sobriety requires the usage of several strategies such as to maximize the energy efficiency in our daily life:

- Improving the efficiency of the household appliances
- Reducing the energy consumption of buildings and industrial processes
- Using energy efficient lighting (LED)
- Using high-efficiency climatization systems *i.e. HVAC systems*
- Implementing energy-saving technologies in manufacturing

However, not only increasing the energy efficiency helps to reduce the energy consumption, but it requires a behavioural change among the individuals as well as the organisational structures. Behavioural change requires that the individuals learn about their consumption practices and its impact on the climate and the carbon footprint production. In that sense, we can give following examples for youth workers to understand and use it during the implementation of training activities as well as teaching these competences to the young people to learn and gain such attitudes :

- Turning of lights when not in use
- Using heating and cooling needs in bearable standards
- Using car pooling or public transportation
- Using small cars for private usage
- Using electric powered or hybrid cars rather than fossil-fuel powered vehicles
- Using train or bus rather than airplane during cross-border or in-country travels
- Diversifying the energy resources derived from renewable resources as wind, solar, hydroelectric power to reduce the consumption of the fossil fuels in daily lives

In that sense, we as human kind have an obligation to reduce our fossil fuel consumption and divert our consumption from the fossil fuels to solar, wind and hydroelectric power resources. As we require to reduce our carbon footprint but not only changing the energy resources but changing our lifestyles *i.e.* changing our behaviours. In this handbook, we have focused on promoting these behavourial changes throughout the systematic approach by implementing non-formal education activities with youth workers and young people.

Lastly, the governments should take role on the implementation of the energy sobriety plans which promotes the energy efficiency by setting rules and regulations to make private and public organizations implement energy performance standards for buildings and work practices. In example, the French Energy Sobriety Plan put guidelines for the public organizations and citizens to follow 15 key issues :

- 1. 19 degrees as the maximum heating temperature in offices
- 2. Postponing the start and the end of the heating period by 15 days
- 3. Reducing the usage of hot water in offices

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- 4. Reduce the heating from 19 degrees to 18 degrees and working on staggered hours on days of high tension on the electrical system (EcoWatt)
- 5. Encouraging teleworking to reduce the fuel consumption
- 6. Encouraging carpooling
- 7. Limiting the speed to 110 km/h on the highways
- 8. Reduce the electricity consumption linked to public lighting
- 9. Reducing the heating of sports centres and equipment
- 10. Reducing the number of square meters heated
- 11. Reduce the time of lighting by 50% before and after matches for competitions
- 12. Implementing a sobiety bonus to promote energy savings and reducing bills
- 13. Making companies to internalise these rules in their daily work times
- 14. Providing subsidies to the individual housings to switch from gas boilers to heat pumps
- 15. Informing the general public about the EcoWatt Signal

(FG, 2024)

Therefore, promoting these strategies and taking these examples to promote the energy sobriety in the other countries can be a start. In this handbook, we have developed such methods to promote the behavioural change as well as the awareness raising among the young people and youth workers to transmit these knowledge to the young people. In short, we summarise below the energy sobriety and what it is and what it requires to happen in our surroundings.

Energy sobriety means to reduce one's energy consumption by avoiding the usage of unnecessary resources from lowering heating to disconnecting unused appliances. In addition to that, using sustainable means for the mobility during our daily lives by choosing public transport, car share or busses rather than using a private car(Teréga, 2024). It requires consciousness about ones energy consumption as well as the impact that s/he creates concerning the environment. Energy sobriety recognizes that, there are not infinite resources in our word and emphasize the importance on using sustainable energy practices to mitigate the impact of the excessive usage of the resources that we have. It as well promotes the clean usage of the energy resources to prevent contamination of the already existing resources to prevent the pollution and negative consequences of excessive energy usage.

Energy sobriety is a common sense! We are aware of the finite amount of resources in our world and we cannot waste this valuable resources. Energy Sobriety is a well known and implemented concept, though, it started to become more mainstream with the war in Ukraine within Europe. As the war between Ukraine and Russia due to their positioning as main energy supplier in Europe, put a burden in gas and oil prices. Several governments such as France, adopted measures to prevent this dependency by reducing the consumption in the public places as well as put measures to prevent the excessive consumption in private spaces. The aim of the energy efficiency plan of France was to reduce the current energy consumption by 40% by 2050 (Dametis, 2024). As it can be argued that, we all should take an example this initiative and put necessary incentives to reduce the energy consumption in our houses.

Enough is enough! As we do not have infinite amount of resources; we should act upon them rather than the issue of increasing oil and gas prices. We should consider the issues in our communities and the impact of climate change due to excessive usage of energy and its impact on our daily lives. According to the recent news published by CNN, the world just marked a year

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above the critical limit. Global warming surpassed the 1.5 degrees Celsius over the past 12 months which will result with the unrecoverable sets of events. With the increased energy consumption and the excessive usage of coal, oil and gas for energy takes us to the edge of climate crisis everyday more closer (Dewan, 2024).

Energy sobriety is related with youth! Within this project, we aim to increase the awareness of the young people and youth workers to prevent the consequences of the excessive energy consumption in our countries by making the young people more aware as well as providing youth workers with necessary tools for creating awareness among young people. In addition to that, we want to provide educational tools for educators to promote the energy efficiency and the issues surrounding ourselves due to excessive usage of the consumption.

Energy sobriety requires a holistic approach! We argue that energy sobriety is not only possible with providing tools for young people but creating awareness among the public and private organizations to make them work together towards to a goal to reduce the usage of energy in participating countries. In that way, we have developed this project to promote the energy sobriety among the public and private stakeholders.

In light of the pillars, in this handbook we focus on the usage sobriety and convivial sobriety due to nature of our work with the young people concerning to the implementation of the training activities. In addition to that, we promote the low-carbon lifestyles and these practices throughout the methods that are provided within this handbook.

TRAINING DEVELOPMENT FOR YOUNG PEOPLE AND YOUTH WORKERS

Working with young people in non-formal education (*NFE onwards*) contexts require different approaches than the formal educational settings. In this chapter, we have tried to highlight these aspects and the training development and facilitation of training activities. In this chapter, we have divided these to three separate segments : *Planning, Implementation, Evaluation* to ensure that, the training development process is planned, implemented and evaluated correctly. In implementation section, we have provided with two separate training programs for young people and youth workers to implement with variety of methods related to energy sobriety.

PLANNING A TRAINING¹

Planning is the first stage of the design of learning processes according to the needs and resources of the learners and pedagogical criteria and principles. The learning process can last either several days, several hours or even an hour, it has the particular standard elements. These are;

- 1) the working conditions need to be clarified and created
- 2) learners need to be enabled to involve their qualities, curiosity and expertise.
- *3) reflection on their needs, questions and experiences, and also to assess their learning during the process (formative evaluation).*
- 4) Work on topics also flows into the design of an agenda in the form of blocks.
- 5) Finally, learners and educators need to describe learning outcome or competence development.

¹ This section is developed by using the materials provided in Competendo Digital Toolbox. The toolbox can be reached from here : <u>https://competendo.net/en/Main_Page</u>

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These elements are the must to consider during the design of trainings or workshops but they are always constructed differently depending on the needs and abilities of the learners *i.e. participants.* Therefore, the trainers should have an ability to adjust the methods and knowledge that is required for the participants to implement these activities. The best way of conducting a non-formal education event is to include the participants' to the planning process though it might not be viable or possible always. However, putting the learners in the centre and making the needs to influence the program design is required.

In that sense, before starting to plan; we have to define our "purpose" to implement the training activity. In that sense, using several questions might help to the educators to implement the activities targeting the particular groups :

- Who is my target group?
- What do you expect in the end of the training?
- What competences do I plan to develop in my target group?
- What methods are more viable to implement with my target group?
- How I am going to asses the change on the participants?

Later answering these questions briefly, we have to plan the training activity in blocks. These block structure can be used alike below :



After planning the program by using the block model above, the connection between the themes plays a role on the acquirement of the competences in a connected manner. In that sense, if you are trying to increase the competences of concerning to the energy sobriety, before directly going to energy sobriety, related themes to energy sobriety can be *Theme 1, Theme 2,.... Theme n,* in the end last theme can be the Energy Sobriety so that, the learners do not have any confusion concerning to the implementation of the activities.

In next chapter, you will see the implementation of the training activities with the young people as well as with the youth workers in detailed with sample programs. Before continuing, we would like to emphasize that, these methods are not *"one size fits all"*. It is better to adjust them according to your target group and change them to fit to their interests during the implementation of the methods by implementing the planning structures that we have briefly explained in this section.

TRAINING MODULE FOR YOUNG PEOPLE

In this section, we will provide the information concerning to the **implementation stage**. We have developed several methods concerning to the implementation of the activities with the young people and youth workers as a module of Training of Trainers(ToT).

The training module for young people designed to be implemented for 20 hours as a pilot program. The training module is consisted of 20 separate methods to be implemented in different order according to the needs of the target groups and the context of the activities.

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This training modules are consisted of two segments : *theoretical information* concerning to the area to increase the knowledge and provide a guiding material for the youth worker to implement the activity, *practical methods* to be implemented by young people aged between 13-30 years old in participating countries in each segment.

As a consortium, we have breakdown the cross-cutting issues related to the energy sobriety into the following segments :

- Training Components
- Energy Efficiency
- Energy sobriety
- Renewable energy adoption
- Sustainable consumption practices
- Case Studies

In this section, we have explained the relation of each segment briefly the theory of the segment and the practical non-formal education to work with young people in non-formal education environments. In this section as a brief explanation prior to the implementation of the training activities, we have put firstly the training components, which are basic methods to make the participants to get to know each other, build a group and evaluation processes.

	Method List	
	Method Name	Theme
1	Getting to Know Each Other / Expectations & Fears	
2	Final Evaluation	
3	What is energy efficiency	
4	Where energy efficiency starts	
5	Eco-Innovators: Designing Energy-Efficient Gadgets	
6	Green Transport in Action	
7	Assembling The Book	
8	Who cares about that?	
9	Energy Defectives	
10	Small Changes, Big Results	
11	Making it Renewable	
12	Energy Chants	
13	Consumer Behaviour - Reducing Your Carbon Footprint	
14	Environmental Consequences of Food waste	
15	Plastic Waste	
16	Fashion Waste	
17	Energy sobriety at home	
18	Green Your School or Campus	
19	Sustainable Urban Living and Transportation	
20	Renewable Energy and Youth Innovation	

Theme List	
Training Component	
Energy Efficiency	
Energy Sobriety	
Renewable Energy Adaptation	
Sustainable Consumption Practices	
Case Studies	

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The method list above is guidance material for the youth educators to implement trainings targeting young people 13-30 years old with group size of 15-30 people. In case of different age or different group size, please adjust the method according to your needs. In addition to that, the methods are developed for the young people and youth workers in Spain, Turkey, Serbia and Greece by the consortium. You can use to adopt the training materials to your own local contexts and the needs.

TRAINING COMPONENT

The training activities should always have a module that the participants and the trainer knows the group as well as the group is comfortable to discuss the topics that might be controversial such as *"energy sobriety" or "climate change"* for some. In that sense, we have developed "Getting to Know Each Other" and "Evaluation of the training activity" to provide a guidance for the youth educators to implement activities with the young people and youth workers.

OPENING SESSION AND WEEKLY PROGRAM

THEMES: TRAINING COMPONENT

OBJECTIVES

- To get know each other
- To create group dynamic
- To inform participants about the methodology (non-formal education and holistic approach)
- To take the expectations of participants
- To present the training schedule to participants

DURATION AND PLANNING

- 10 minutes : Introduction of Trainers
- 10 minutes : Presentation of Project and Questions and Answers
- 30 minutes : "Say me your nickname"
- 5 minutes : Introduction of Methodology
- 10 minutes : Gathering of expectations and fears
- 10 minutes : Learning Aims
- 5 minutes : Training Program

MATERIALS

- Colored A4 Papers
- Post-Its
- Flipchart
- Paper Tape
- Pens for each participant

RECOMMENDED METHOD

The Opening Session begins with the project coordinator's "Welcome" speech, after which the trainers introduce themselves. The entire group briefly say their name and what they are doing in local. The implementation of the overall project, the goals of the activity and the idea of project is explained by the training team. Subsequently, participants' questions are answered.

"Say me your nickname"

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Participants form a circle. The trainer asks each participant to set a nickname that starts with the initials of his / her name. Clockwise, the participant will repeat the name and nickname of everyone who have told their name and nickname before that one. The activity is ends when the circle comes to first person.

Methodology

The non-formal education methodology, experiential learning and holistic approach is introduced. Afterwards, the general idea of the energy sobriety and the aims of the project is briefly explained to the participants.

"Gathering expectations and Fear"

The facilitator puts two separate flipcharts with headings (fear & expectations) and give participants two separate color post-its in order to get expectations and fears. They are to write in orange coloured papers that they expected from the training and red papers, what they have a fear about the training. The participants are requested the put the post-its in the flipcharts. The content written by participants to the flipcharts is read by trainers and summarized.

"Learning aims"

The participants are asked to develop their concrete learning aims concerning to training is being implemented and their involvement. In the evaluation section, we will visit again these aims to understand the achievement of the participants.

After, the training program is introduced by trainer team. The short information about the activities during the program is given. If the participants have questions related to program, the trainers answers.

ADDITIONAL INFORMATION AND READINGS

- 1. Non-formal education in youth projects Council of Europe : <u>https://www.coe.int/en/web/european-youth-foundation/non-formal-education</u>
- 2. Experiential-learning Institute for Experiential Learning : <u>https://experientiallearninginstitute.org/what-is-experiential-learning/</u>
- 3. La Belle, T.J. Formal, nonformal and informal education: A holistic perspective on lifelong learning. Int Rev Educ 28, 159–175 (1982). <u>https://doi.org/10.1007/BF00598444</u>

Other activities related with "Getting to know each other" and "Building group dynamics" can be as well implemented according to target group.





EVALUATION

OBJECTIVES

- To evaluate the overall programme
- To receive feedback about the content
- To develop follow-up plans with the participants

DURATION AND PLANNING

- 20 minutes : Verbal Evaluation
- 10 minutes : Online Evaluation
- 30 minutes : Follow-up plans

RECOMMENDED METHOD

After finishing the overall process, we want to understand the overall experience of the participants as this workshop schedule and the idea of the workshop is solely practical to increase their skills on energy sobriety to be able to promote the energy sobriety in their surroundings.

Prior to the finalisation, the facilitator asks the everyone's opinion about the overall process randomly.

Later on, participants are asked to evaluate the training program verbally. Trainer places three chairs in the middle of the training room. On the chairs, the flipchart papers drawn following shapes is put;

- **Trash:** Things you never want to remember
- **Suitcase:** Things you want to use in the future
- **Drawer:** Things to leave here for a while and then use later

According to their educational achievements, participants are asked to make their own assessments in line with each chair.

After the assessments are finished, the participants are provided with the online evaluation form to fill-out which is developed as an example in Annex-A : Evaluation Form Example for Training for Young People.

Follow-up plans

In the end of the training, the participants develop a small project idea as a measure to practice their knowledge by implementing 5W1H Method by answering *"what, who, when, where, why, and how"* questions. After the presentation of the follow-up plans as projects or campaigns or their initatives, the training activity is completed.

ADDITIONAL INFORMATION AND READINGS

Any other evaluation method can be used to implement the evaluation methodology. Though, it is important to emphasize that, the evaluation methodologies might be changed and should be adopted to the target group according to their needs and abilities.

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ENERGY EFFICIENCY

Energy efficiency is a key aspect of sustainable development. It focuses on reducing energy consumption without compromising economic growth or environmental protection. In contrast to energy production, where the focus is on generating more energy, energy efficiency optimizes the use of existing resources. This approach plays a crucial role in reducing greenhouse gas emissions and supporting the transition to a low-carbon economy. Energy efficiency means that less energy is consumed to achieve the same level of performance. This differs from energy conservation, where services are reduced or eliminated to save energy. Both energy efficiency and energy conservation aim to reduce energy consumption but differ in their approaches. Energy efficiency focuses on optimizing energy consumption through improved technologies, such as the use of LED lights or energy-efficient appliances. In contrast, energy sobriety is about reducing energy consumption through behavioural changes, such as reducing consumption or refraining from certain activities, e.g. heating less or driving less.

While energy efficiency maintains comfort with less energy, energy sobriety emphasizes moderation and conscious choices to use less energy overall (French Agency for Ecological Transition, 2024). The importance of energy efficiency has increased amid growing concerns about energy security, economic stability and environmental impacts. By improving energy efficiency, countries can reduce their dependence on fossil fuels, reduce greenhouse gas emissions and mitigate climate change, which is in line with global sustainability goals (UNSD, 2023).Technological advances play a key role in improving energy efficiency. Innovations such as LED lighting, which is up to 80 % more efficient than conventional light bulbs (U.S. Department of Energy, 2024), and the development of passive houses, which require little energy for heating and cooling, show significant progress. In the industrial sector, energy-efficient motors and smart grids enable significant energy savings and real-time monitoring, further optimizing energy use. Energy efficiency also plays a crucial role in combating climate change, as it reduces emissions of carbon dioxide (CO2) and other greenhouse gases.

According to the International Energy Agency, energy efficiency measures could reduce global CO2 emissions by 12 gigatons by 2040, equivalent to the emissions of the European Union and the United States combined (IEA, 2023). Despite these benefits, the large-scale introduction of energy efficiency measures is hampered by challenges. One major obstacle is the upfront cost of energy-efficient technologies, which can be a barrier for consumers and businesses, especially in developing countries. In addition, a lack of awareness and information about energy efficiency means that too little is invested in these technologies. The rebound effect, where efficiency gains are offset by increased energy consumption elsewhere, can also reduce overall savings. Governments play a crucial role in promoting energy efficiency through policies such as financial incentives, energy efficiency standards and building regulations. Education programs and awareness campaigns are also important to inform consumers and businesses about the benefits of energy efficiency. The European Union's 'energy efficiency first' principle emphasizes that energy efficiency must be a priority in energy planning and investment decisions (European Commission, 2024).In summary, energy efficiency is essential for achieving sustainable development goals, reducing greenhouse gas emissions and improving energy security. Continued investment in energy-efficient technologies, supportive policies and increased awareness are crucial to fully exploit the potential of energy efficiency and create a sustainable future.

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WHAT IS ENERGY EFFICIENCY?

THEMES: UNDERSTANDING ENERGY EFFICIENCY

OBJECTIVES

- To introduce the concept of energy efficiency and its importance.
- To differentiate between energy conservation and energy efficiency.
- To explore the impact of energy efficiency on reducing energy consumption and carbon emissions.

DURATION AND PLANNING

- Introduction to Energy Efficiency: 20 minutes
- Interactive Quiz: 15 minutes
- Group Discussion: 25 minutes

MATERIALS

- Internet
- Projector
- Flipcharts
- Markers
- Handouts

The session begins with a 20-minute introduction to energy efficiency, during which the trainer provides a clear and accessible explanation of the concept. The trainer defines energy efficiency as the practice of using technology to perform the same tasks while consuming less energy. This is contrasted with energy conservation, which involves reducing energy usage by changing behaviours, such as turning off lights when not needed or lowering the thermostat. To reinforce these distinctions, the trainer uses real-world examples, such as replacing incandescent bulbs with LED bulbs or using energy-efficient appliances, to illustrate how technology can reduce energy consumption without sacrificing comfort or functionality. Additionally, a short video is presented to visually reinforce the concepts discussed, helping participants to better grasp the ideas.

Following this introduction, participants are divided into small groups for a 15-minute interactive quiz designed to deepen their understanding of energy efficiency. The quiz includes questions on key definitions, the benefits of energy efficiency, and practical examples of energy-efficient practices. By working together to answer the quiz questions, participants engage in active discussion, which fosters teamwork and enhances knowledge sharing within the group.

After completing the quiz, the session moves into a 25-minute group discussion. During this time, participants reflect on how they currently use energy in their daily lives, whether at home, school, or work. They are encouraged to identify specific opportunities for improving energy efficiency, such as upgrading appliances, insulating homes, or adopting more efficient lighting. Each group then presents their findings to the larger group, sharing insights into the common challenges they face and the potential solutions they've identified. The trainer facilitates this discussion, helping to draw out common themes and providing additional guidance on how to overcome obstacles to energy efficiency. Through this process, participants gain a deeper understanding of the importance of energy efficiency and leave with practical ideas on how to apply these principles in their own lives. Here are some additional guiding questions that the trainers can use during the training:

• What specific examples of energy efficiency have you experienced in your daily life?

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- How do you distinguish between energy efficiency and energy saving in practice?
- What obstacles do you think prevent people from adopting energy efficient technologies or practices?
- What role do you think government policies or initiatives play in promoting energy efficiency?
- How does energy efficiency contribute to larger environmental or sustainability goals?
- How can you encourage others in your community or workplace to adopt more energy efficient practices?

ADDITIONAL INFORMATION AND READINGS

Energy Efficiency Presentation: <u>https://www.canva.com/design/DAGRxYOhRDY/Aj-oDJoReXxYX3BWbUxdAA/edit?utm_content=DAGRxYOhRDY&utm_campaign=designshare&utm_medium=link2&utm_source=sharebutton</u>

Kahoot Quiz about Energy Efficiency and Sobriety: https://kahoot.it/challenge/004724347

A recommended video about energy efficiency: https://www.youtube.com/watch?v=D11iFUw_mU





WHERE ENERGY EFFICIENCY STARTS?

THEMES: INTRODUCTION TO ENERGY EFFICIENCY IN PRACTICE

OBJECTIVES

- To explore the starting points of energy efficiency in daily life.
- To increase awareness of simple actions that lead to improved energy efficiency.
- To empower participants to make energy-efficient choices in their homes, workplaces, and communities.

DURATION AND PLANNING

- Identifying Where Energy Efficiency Starts: 20 minutes
- Energy Efficiency in Daily Life: 20 minutes
- Practical Demonstration & Activity: 30 minutes
- Debriefing: 20 minutes

MATERIALS

- Paper Tape
- 8 Flipchart Papers
- Markers (coloured)
- Scenarios on Energy Use Sheets
- Energy Efficiency Tip Cards

RECOMMENDED METHOD

The session begins with the moderator asking the participants an open question: "Where do you think energy efficiency starts?" This question is intended to start a conversation and encourage participants to reflect on their personal experiences. The facilitator asks the group for answers and guides them to think about small, everyday actions that contribute to energy efficiency. Participants can mention habits such as turning off lights when leaving a room, setting thermostats to avoid excessive heating or cooling, or opting for energy-saving appliances such as LED light bulbs or ENERGY STAR labelled electronics. This brainstorming activity helps participants realize that energy efficiency is not limited to large-scale industrial solutions, but starts with simple, accessible measures in everyday life. The facilitator emphasizes that energy efficiency starts with awareness and making informed choices, whether at home, at work or in daily transportation. The discussion could cover how closing windows to keep the heat in during winter, using public transportation or choosing appliances with higher energy ratings can help reduce energy waste. Through this conversation, participants are encouraged to recognize the cumulative effect of small actions and reinforce the idea that even small changes can lead to significant energy savings over time.

Next, the facilitator asks participants to think about specific activities they do daily - e.g. cooking, lighting, heating or transportation - and consider where energy efficiency can be adopted. The aim is to help participants connect the abstract concept of energy efficiency to real actions in their lives. The facilitator then explains how changing habits in these areas can lead to measurable energy savings. For example, switching to energy-efficient appliances or reducing hot water costs by using cold water when doing the laundry are practical ways to save energy. To provide further inspiration, the facilitator distributes energy efficiency tip cards with actionable tips and best practices that provide clear examples for participants to adopt. In the next part of the session, the facilitator divides the participants into small groups and distributes sheets of paper with energy use scenarios. Each sheet contains a real-life scenario (e.g. managing energy consumption in an

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office, heating a house or lighting in a school). Each group has the task of analysing the scenario and identifying specific starting points for energy efficiency. The group members brainstorm energy-saving ideas and possible solutions that could be applied to their scenario. They have 10 minutes to discuss them. They then prepare a short presentation to present to the larger group.

After each group has presented its work, the moderator opens the space for questions and invites the other participants to contribute additional suggestions or ideas. This open dialog allows for shared learning, where participants can learn from each other's knowledge. The facilitator encourages the use of role plays or simple demonstrations to make the presentations more interactive and engaging. This not only increases understanding, but also brings the energy-saving ideas to life in a realistic way.

After the activity, the facilitator leads a reflective debriefing session using guiding questions to facilitate deeper understanding and personal reflection. These questions include:

- Where did energy efficiency start in your scenario?
- What surprised you about the potential for energy savings in small actions?
- How can you implement these changes in your daily life?
- Do you think these small actions can make a big difference? Why or why not?

The facilitator uses these questions to draw out participants' thoughts and encourage them to think critically about how they can apply what they've learned in real-world settings. The debriefing aims to reinforce the idea that energy efficiency begins with small, mindful decisions that everyone can make to reduce their energy consumption. The session concludes with a reminder that the journey to energy efficiency is ongoing and starts with simple, intentional changes that have a lasting impact on both energy use and environmental sustainability.

ADDITIONAL INFORMATION AND READINGS

SCENARIOS ON ENERGY USE SHEETS:

Office Heating and Cooling	Hot Water Uses in a Shared Anartment
Contents	Contents
Context:	Context:
You work in a small office that uses both heating and	You live in a shared apartment with several people
cooling systems year-round. The thermostat is	and the hot water system is heavily used throughout
manually controlled, and temperature settings are	the day. You have noticed that your energy bills are
unstable, causing employee discomfort and high	high due to frequent hot water use. You cannot
energy bills	control everyone's habits and installing a more
Participant task:	efficient water heater is costly. You are not sure how
Discuss how energy efficiency can start in this office	to reduce energy use without upsetting your
scenario.	roommates.
Suggest steps to reduce energy consumption while	Participant Task:
maintaining comfort.	Think of different ways to save energy without
Guide questions:	disrupting everyday household life.
How can programmable thermostats improve energy	Discuss how to balance personal actions with
efficiency?	collective responsibility in a shared living space.
What other steps can be taken to reduce heating and	Guide questions:
cooling costs?	Should you try to convince your roommates to
	change their hot water usage habits or is it better to
	invest in a more efficient water heater?
	How can you approach the situation to encourage
	energy savings without causing conflict?
Public Transportation vs. Driving	Remote work vs daily commute (mental health)

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Context:	Context:
You commute to work every day, but now you have	Your employer offers the option to work from home,
the option to switch from driving to public	which reduces your commute and saves energy.
transportation. Public transportation is cheaper and	However, working from home increases household
more environmentally friendly, but your daily	energy use (heating, lighting) and you are concerned
commute would take 30 minutes longer. You also	about the impact on your mental health due to
value flexibility and convenience, especially if you	isolation and reduced social interaction.
must run errands after work.	Participant task:
Participant Task:	Compare the energy savings from reduced
Discuss the trade-offs between convenience and	commuting with the increased energy use at home.
energy savings when choosing between public	Discuss how mental health, routine and social
transportation and driving.	interactions influence this decision.
Consider how lifestyle factors such as time and	Guide questions:
flexibility influence the decision.	Does the energy savings from eliminating the
Guide questions:	commute outweigh the increased household energy
Is the extra time you spend on public transportation	use?
worth the energy savings and cost reductions?	How can you ensure energy efficiency and mental
How could you use public transportation to improve	wellbeing while working remotely?
your energy use without sacrificing convenience?	Is going to the office better for your mental health,
-	even if it uses more energy?

ENERGY EFFICIENCY TIP CARDS

Programmable Thermostat	Unplug Electronics
Tip: Use a programmable thermostat to optimize heating and cooling. How It Helps: Set your thermostat to automatically adjust the temperature when you are away or asleep. This prevents energy waste by reducing heating or cooling when it's not needed. You can save up to 10% on heating and cooling costs annually by lowering your thermostat by 7-10°F for 8 hours a day.	Tip: Unplug electronics when not in use to avoid standby energy consumption. How It Helps: Many electronics continue to draw power even when turned off—this is called "phantom" or standby energy consumption. By unplugging devices such as chargers, computers, and televisions when they're not in use, you can reduce your electricity usage and save money.
Seal Gaps in Windows and Doors	Cold Water Laundry
Tip: Seal gaps in windows and doors to prevent heat loss. How It Helps: Small gaps and cracks in windows and doors allow warm air to escape in winter and cool air to escape in summer, forcing your HVAC system to work harder. Sealing these gaps with weatherstripping or caulking improves insulation, reducing energy consumption and increasing comfort.	Tip: Wash clothes in cold water to reduce energy used in heating water. How It Helps: Water heating accounts for about 90% of the energy used by your washing machine. By using cold water for your laundry, you significantly reduce energy consumption. Cold water is effective for cleaning most fabrics, and modern detergents are designed to work well in cooler temperatures

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SYMBOL LIST

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GREEN TRANSPORT IN ACTION

THEMES: GREEN TRANSPORT IN ACTION: ROLE-PLAYING SUSTAINABLE SOLUTIONS OBJECTIVES

- Raise awareness about the importance of energy efficiency in transportation.
- Encourage creativity and teamwork through role-playing scenarios about sustainable transportation.
- Develop practical skills in presenting and advocating for sustainable ideas.

DURATION AND PLANNING

- Introduction to the training theme 15 minutes
- Team Activity: Role-Playing Scenarios on Sustainable Transportation- 45 minutes
- Presentation and Feedback Session 30 minutes

MATERIALS

- Scripts for role-playing scenarios.
- Access to internet and laptops/tablets for research.
- Presentation materials brainstorming and planning. (projector, screen, etc.).

RECOMMENDED METHOD

The session begins with a brief introduction to the concept of green transport. The trainer asks participants, "How do you think transportation affects energy use?" This question invites participants to reflect on their current transport habits and their energy implications. The trainer guides the discussion by highlighting the role transportation plays in energy consumption, particularly emphasizing the difference between conventional fuel-powered transport and more sustainable alternatives like electric vehicles, biking, walking, and public transit.

Following this, the trainer introduces the concept of sustainable transportation and asks participants to share examples of green transport solutions they have encountered or implemented. This brainstorming session helps participants recognize the variety of options available, from electric scooters to carpooling and beyond. The goal is to create an open dialogue about practical ways to reduce energy consumption through smarter transportation choices.

Next, the trainer transitions into the main activity: role-playing sustainable transport scenarios. Participants are divided into small groups, with each group receiving a unique scenario (e.g., designing a sustainable urban transportation system, reducing the carbon footprint of a corporate fleet, or creating a public awareness campaign promoting biking and public transit). Each group has access to research tools (laptops/tablets with internet) and scripts that outline the objectives of their scenario.

The groups spend 20 minutes researching and brainstorming sustainable transport solutions that can be applied to their scenario. They use their creativity to develop practical strategies, considering aspects like energy efficiency, cost, environmental impact, and community adoption. During this process, they plan a role-play that showcases their solution, where group members act out the implementation of their transport plan (e.g., as city planners, corporate leaders, or public transport advocates).

Once the research and planning phase is complete, the groups take turns presenting their roleplays to the rest of the participants. Each presentation lasts 5-7 minutes, during which the group demonstrates their solution through the role-playing script. The trainer encourages active engagement from the audience by inviting questions and suggestions after each presentation.

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Participants are encouraged to give feedback on both the feasibility of the solutions and the creativity in presenting them.

After all groups have presented, the trainer leads a reflective feedback session. Guiding questions might include:

- What were the most effective sustainable transport solutions you saw?
- How do these solutions address energy efficiency?
- What challenges might arise in implementing these solutions in real life?
- How could you advocate for these changes in your own community or workplace?

Through this discussion, participants critically evaluate the ideas presented, thinking about both the benefits and obstacles of green transportation strategies. The trainer concludes by reminding participants that sustainable transportation is a key component of energy efficiency and that the creative solutions they have discussed today can contribute to real-world change. Participants leave the session with a better understanding of how to advocate for and implement sustainable transport solutions, both individually and collectively.

ADDITIONAL INFORMATION AND READINGS

Here two example scenario you can share with the participants:

Commuting to Work	Family Road Trip
Context: A group of employees in a city have different	Context: A family is planning a long-distance road trip
options for their daily commute: driving personal	and must choose between driving a gas-powered car,
cars, carpooling, using public transport, or biking.	using an electric vehicle (EV), or taking a train. Task:
Task: Design a transportation plan that maximizes	Debate the pros and cons of each transportation
energy efficiency. Discuss and debate the benefits of	method and decide on the most energy-efficient
each option and propose the best solution for	option that suits the family's needs.
reducing energy use.	Key Points: Electric vehicle advantages: reduced
Key Points: Benefits of carpooling and public	emissions. The convenience and efficiency of train
transport. Biking and walking for shorter distances.	travel. The environmental impact of a gas-powered
Using electric vehicles or hybrids for lower emissions	car.





DESIGNING ENERGY EFFICIENT APPLIANCES

THEMES: INNOVATING FOR GREATER EFFICIENCY: DEVELOPING SUSTAINABLE HOUSEHOLD SOLUTIONS

OBJECTIVES

- To raise awareness of the role of energy efficiency in everyday life.
- To encourage creativity and teamwork through the development of innovative, energy efficient household appliances.
- To develop participants practical skills in developing and presenting sustainable solutions.

DURATION AND PLANNING

- Introduction to energy efficient solutions: 15 minutes
- Team activity: Developing energy efficient appliances: 45 minutes
- Presentations and feedback: 30 minutes

MATERIALS

- Flipcharts and coloured markers for brainstorming sessions
- Drawing supplies: paper, pencils, rulers for sketching appliance designs
- Access to the internet, laptops or tablets for research purposes
- Projector and screen for team presentations

RECOMMENDED METHOD

First, the trainer introduces the concept of energy efficiency and its role in everyday life, focusing particularly on household appliances. This part of the session begins with a brief explanation of the impact that energy efficient appliances can have on reducing energy consumption and lowering electricity bills. To make the topic more engaging, the trainer can show a short video comparing conventional household appliances with more energy efficient models. The video is followed by a short discussion in which the participants are asked to share their thoughts and experiences with energy consumption in their households. Some guiding questions include:

- What are some common household appliances that consume a lot of energy?
- Why is energy efficiency important for reducing household energy consumption?
- Can you name any energy-efficient appliances? How do they work?

The participants are then divided into groups of 4-5 people. Each group has the task of developing an innovative design for an energy-efficient household appliance. The trainer explains that the aim is to design a product that improves an existing appliance by making it more energy efficient. With the help of flipcharts, coloured markers and drawing materials, the participants brainstorm and sketch their ideas for the appliance. They can choose any household appliance (e.g. a vacuum cleaner, coffee machine or air conditioner) and are asked to think creatively about how the appliance could be redesigned to use less energy. To help them do this, they are encouraged to use laptops or tablets to research and explore current innovations in energy-efficient technology. The trainer rotates between groups to offer support, stimulate ideas and guide the discussions to keep participants on track. This team activity lasts approximately 45 minutes.

After the design phase, each group presents their idea to the whole group. Using a projector or flipcharts, the groups present their plans and explain the energy-efficient features of their proposed purposes. They describe how their designs would save energy, what materials or technologies they would use and how their product differs from conventional models. After each presentation, the trainer moderates a short feedback session in which the other participants can

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ask questions and offer constructive criticism. This part of the presentation and feedback lasts about 30 minutes. At the end of the session, the trainer leads a final group discussion in which questions are asked such as: "What were the biggest challenges in developing your device?" and "How do you think innovations like this can influence a sustainable lifestyle?" This reflection helps participants to think critically about their designs and the role of energy efficiency in the future of household appliances.

ADDITIONAL INFORMATION AND READINGS

- A video about household appliances with energy consumption:
- <u>https://www.youtube.com/watch?v=ziyslQq_eeA</u>
- Some examples and information about energy efficient buildings:
- <u>https://www.advantageaustria.org/lt/zentral/branchen/energieeffizienz_green-building/overview/Ueberblick.en.html</u>
- We suggest you use the EFFICIENCY CHECK TOOL for this purpose, there are several ways to calculate. You can reach the tool from here: <u>https://tool.label2020.eu/</u>





ENERGY SOBRIETY

Sobriety – from the Latin sobrietas – in the sense of caution, moderation, temperance or frugality, as opposed to 'sustainability' understood as green growth as the only possible horizon, should help us conceive a different approach to environmental protection. This involves no longer only limiting the consumption of natural resources, but seriously considering not using them all. Generally, sobriety should be conceived functionally, meaning that it is liable to change behaviours. Drawing on such an approach, the introduction of an 'environmental ceiling' and a 'social foundation' has been suggested to work towards a 'resilient' development, tackling a wide range of issues, including environmental inequalities. (Baudouin, 2019)

Energy sobriety is a multifaceted approach aimed at reducing energy consumption and improving energy efficiency to support environmental sustainability and long-term energy stability. Energy sobriety refers to a deliberate reduction in energy consumption and an emphasis on efficient use of energy resources. This approach integrates various strategies to achieve sustainability and mitigate the environmental impact of energy use. As global energy demands rise and environmental concerns grow, adopting energy sobriety becomes increasingly crucial. Energy sobriety encompasses a range of practices aimed at reducing energy consumption and enhancing efficiency. According to Haas (2021), it involves not only the implementation of energy-efficient technologies but also a shift in individual and collective behaviors towards more sustainable energy use.

Strategies for Achieving Energy Sobriety

- 1. Technological Innovations: Advances in technology play a significant role in improving energy efficiency. Energy-efficient appliances, smart grids, and renewable energy technologies are key components in this strategy (Smith & Brown, 2022).
- 2. Behavioral Changes: Educating individuals about energy conservation and encouraging lifestyle changes can lead to significant energy savings. Programs that focus on reducing energy use at home and in workplaces are essential (Johnson, 2023).
- 3. Policy and Legislation: Government policies and regulations are crucial in promoting energy sobriety. Effective energy policies can drive the adoption of sustainable practices and technologies (Barka, 2023).

Challenges in Implementing Energy Sobriety

Despite the benefits, there are several challenges associated with implementing energy sobriety:

- 1. Cost Barriers: Initial costs for energy-efficient technologies can be high, which may deter some individuals and organizations from adopting these practices.
- 2. Resistance to Change: Behavioral change is often slow, and overcoming resistance to new practices can be challenging.
- 3. Policy Implementation: Developing and enforcing effective energy policies requires coordination among various stakeholders and can face political and economic obstacles.

Energy sobriety offers a promising approach to achieving sustainability by reducing energy consumption and improving efficiency. While there are challenges to overcome, the benefits of energy sobriety in terms of environmental impact and energy security make it a vital strategy for the future. Continued technological advancements, educational efforts, and supportive policies will be key to its successful implementation.

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"ASSEMBLING THE BOOK"

OBJECTIVES

- To be physically and mentally active
- To raise the energy level in the group
- To sensitize young people to this topic
- To acquire key concepts related to the topic
- To develop critical thinking
- To strength discussion skills

DURATION AND PLANNING

- 5 minutes : "Maacinga wave"
- 5 minutes : Introduction of Trainers
- 30 minutes : Understanding of Key Concepts
- 20 minutes : Discussion

MATERIALS

- Panel with painted open books
- Papers with printed key terms
- Papers with printed explanations of selected key terms
- Duct tape

RECOMMENDED METHOD

Activity 1: "Maacinga wave" - All participants stand in a circle facing each other. The workshop trainer invites each participant to repeat the movements and imitate the sound shown by him. But they can only repeat this when the person on their left has finished their movement and sound. Thus, the movements in the circle move like waves. The trainer first stretch out his hands towards the center of the circle saying aloud "Maaaa" for a long time, the participant on the right side of the presenter does the same and so on for each other in the form of waves until the last participant (person on the left side of the trainer) do not stretch out his hands while saying "Maaa". Then all participants from one pull of the hand towards themselves and in they shout "Cinga" in one voice. The wave can be repeated three or four times, until the group is satisfied.

Activity 2: The trainer announce the next activity and provide instructions for the participants.

Activity 3: Understanding of Key Concepts - Participants are divided into pairs and invited to correctly arrange pages that have fallen out of a book on the board. They are to match them with the corresponding text displayed on the board. The texts are short explanations of concepts printed on pages of open books (drawn on the blackboard). Key terms are printed on separate, loose pages that are spread out on the table in front of the board. The key terms that should be combined with their explanations are: Energy Sobriety, Energy Efficiency, Greenhouse effect, Climate change, Biodiversity, Renewable Energy Sources, Green technologies, Smart Energy Use, Renewable Energy Sources, Energy-Responsible Behavior, Reduction of CO2 emissions, Carbon Footprint Reduction, Eco-consciousness, Sustainable Consumption.

Pairs must discuss together, and interact with the group, to find the correct explanations for the key concepts they have been given. They then stick the terms and explanations next to each other to form a complete idea. Afterward, they read their concepts and explanations aloud.

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Activity 4: A discussion of concepts - Participients discussed their opinion on what concept they consider very important and why. All participants take part in the experience together.

At the beginning of the workshop we use elements of psychodrama. We encourage participants to express themselves non-verbally, which can be fun, stimulating and relaxing. With that, they should be ready to accept the informative part of the training that follows.

ADDITIONAL INFORMATION AND READINGS

In activity no. 3, the books on the board can be designed by an artist or simply drawn by the moderator. Papers with printed explanations of selected terms are pasted onto drawings of open books on the poster. The second page of the open book is blank and the participants should stick their papers with the key terms on it. The moderator should ensure that each pair selects at least one concept (i.e., a fallen page of the book) or, if necessary, two, depending on the number of participants. It is important that all terms are selected and explained.

Before the training, trainers should copy the explanation of key terms from one of the online dictionaries and print them on paper (pages of the book). Links to some of the possible online dictionaries are given below.

Recommended reading:

- <u>https://www.ccreee.org/wp-content/uploads/2020/10/Child-Friendly-Renewable-Energy-and-Energy-Efficiency-Dictionary.pdf</u>
- <u>https://www.iavm.org/sites/default/files/documents/Green_Glossary_of_Terms_and_Definitions for International Association of Assembly Managers final.pdf</u>
- <u>https://www.greenyellow.com/en/lexique-shiftefficiency/</u>





"WHO CARES ABOUT THAT?"

OBJECTIVES

- To motivate participants to adopt new, sustainable habits.
- To encourage responsible behavior toward nature and natural resources.
- To help participants understand the personal relevance of energy sobriety.
- To create positive and memorable experiences during the training.

DURATION AND PLANNING

- 5 minutes : Introduction of Trainers
- 5 minutes : Video clip presentation
- 35 minutes: Group work identifying benefits
- 40 minutes: Changing lifestyles
- 5 minutes: A photo with a promises

MATERIALS

- Flip chart
- Colourful stickers
- Pink self-adhesive papers shaped like a flower
- Group photo taken in the previous workshop
- Markers

RECOMMENDED METHOD

Activity 1: Introduction of Trainers - The moderator gives instructions for the next activity.

Activity 2: Video clip presentation - Participants are shown a short video clip from the following link: <u>https://www.youtube.com/watch?v=f_8VY2kSPjE</u>

Activity 3: Group work – "Identifying benefits" - The participants were divided into five groups. After a discussion about video clip within their groups, they are tasked with writing down as many benefits of energy sobriety as possible, on sticky notes. These notes are placed on one of three sections of a flip chart: environmental benefits, economic benefits, or personal benefits. The responses on the flip chart are then discussed and summarized. Duration: 35 minutes.

Activity 4: "Changing lifestyles" - After receiving brief instructions, participants stay in groups and reflect on their own lifestyle habits and identify those that contribute to excessive energy and resource consumption. Each participant, in turn, announces their bad habit(s) out loud to the group. The moderator then invites them to consider which of these habits they could change, how they would do so, and what benefits they might gain. Participants write a promise to themselves about changing their habits on pre-prepared sticky notes and attach the note to their shoulder. Afterward, they freely walk around the room, interact with others, and share their promises. Duration: 40 minutes.

Activity 5: "A photo with a promises - Participants with stickers on their clothes pose for a photo together. Duration: 5 minutes.

ADDITIONAL INFORMATION AND READINGS

Before the implementation, the coach prepares different forms of stickers from self-adhesive papers - promises that the participants will stick to themselves. These can be the shapes of various flowers, medals, orders, etc.

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"ENERGY DETECTIVES"

OBJECTIVES

- to identify energy challenges in their environment
- to develop critical thinking
- to develop practical energy sobriety skills
- to develop teamwork

DURATION AND PLANNING

- 5 minutes : Introduction of Trainers
- 30 minutes : Group work
- 20 minutes : Group work presentations
- 5 minutes : Summary

MATERIALS

- flip chart papers
- markers (red and green)
- stickers
- papers with printed symbols

RECOMMENDED METHOD

- Activity 1: Introduction The facilitator explains to the participants that the world today is faced with excessive energy consumption. The consequences of such reckless behavior are already obvious. It is necessary to identify the main culprits and causes, and that is the job of the detective. The participants in the training play the role of detectives in this workshop.
 Duration: 5 minutes
- Activity 2: The participants are divided into four groups. Each group should analyze the segments of household life, which are: 1) lighting and electrical appliances, 2) transportation, 3) heating and cooling, 4) entertainment and hobbies. In mutual agreement within the groups, they should identify the main energy consumers, as well as the main violations in the daily life habits of the household members. They write down their observations on a flip chart. The culprits are written down in red, and the recommended suggestions in green. Duration: 30 minutes
- Activity 3: In the next step, each group presents what it detected within its task and makes suggestions for reducing consumption.
 Duration: 20 minutes
- Activity 4: The trainer and participants summarize the results of the group work and draw a conclusion about the necessity of sober consumption.
 Duration: 5 minutes

ADDITIONAL INFORMATION AND READINGS

Trainers should print and cut out symbols² for the group work topics for the Activity 2:

² Symbols were downloaded from: https://www.freepik.com

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1) Lighting and electrical appliances



3) Heating and cooling

2) Transportation



4) Entertainment and hobbies

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"SMALL CHANGES, BIG RESULTS"

OBJECTIVES

- to gain insight into global energy consumption
- to improve the skills of analysing and interpreting data
- to develop critical thinking
- to identify and solve problems
- to think creatively in a team
- to improve discussion skills

DURATION AND PLANNING

- 5 minutes : Introduction of Trainers
- 20 minutes : Group work image and data analysis
- 25 minutes : Group work drafting a local action plan
- 20 minutes : Group work presentations
- 20 minutes : Discussion

MATERIALS

- 4 electronic devices (at least one per group) tablets, laptops or mobile phones
- internet
- flip chart papers
- markers: red, blue, green

RECOMMENDED METHOD

Activity 1: Introduction – The trainer directs all participants to conect to the internet and to visit website: <u>https://ourworldindata.org/energy-production-consumption</u>. Then he divides them into 4 groups.

Duration: 5 minutes

- Activity 2: Each group receives one interactive image from the website. Each image can be viewed as a graph, table or map. The themes and names of the images that groups receive for analysis are: 1. *Global primary energy consumption by source*; 2. *Annual change in primary energy consumption, 2023*; 3. *Primary energy consumption, 2023* and 4. *Energy use per person, 2023*. Group participants should find and look at their image in all given forms (graph, map, table) and after the discussion about a data to answer the following questions: What does the image often represent to us? Why is it significant? What trend does it indicate? What danger does this trend pose? How is their country represented? They should briefly write down the answers on a flip chart.
- **Duration**: 20 minutes
- Activity 3: Each group should then devise an local action that could contribute to preventing the observed danger. They need to sketch out an action plan. The draft action plan should include: who, where, when and why will implement these activities. Then, what effects are expected and what will be the indicators for a successfully implemented action. The action should be implemented by young people in their school, work or living environment. Duration: 25 minutes
- Activity 4: Each group presents its answers and proposal for action to all other training participants.
- **Duration**: 20 minutes

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- Activity 5: The facilitator encourages discussion about the presented trends and possible dangers, as well as the effects of the proposed actions. Participants are led to the conclusion that small changes in habits and behavior can cause significant and large results on a global scale.
- **Duration**: 20 minutes

ADDITIONAL INFORMATION AND READINGS

Trainers should visit the website listed before implementing the training so that they can prepare for discussing the topic and leading the workshop.

Recommended reading:

Hannah Ritchie, Pablo Rosado and Max Roser (2020) - "Energy Production and Consumption"PublishedonlineatOurWorldinData.org.Retrievedfrom:'https://ourworldindata.org/energy-production-consumption'[Online Resource]





RENEWABLE ENERGY ADOPTATION

Renewable energy is derived from the natural resources that are replenished more than it is consumed. For example, sunlight or the wind that are constantly replenished and they are not consumed in the pace that they are reproduced by the nature. However, fossil fuels, coal, oil etc. are the non-renewable resources that requires millions of years to reproduce. In addition to that, in the event of using fossil fuels to produce energy, it produces greenhouse gas emissions and carbon dioxide which contributes to the climate change.

According to UN Climate Action (2024), there are 5 separate types of renewable energy resources as solar energy, wind energy, geothermal energy, hydropower, ocean energy, bio energy. These resources helped the reduction of the fossil fuels and the need behind the usage of the fossil fuel resources to continue our lives. However, each energy resource comes with its downside from storing the resource *i.e. batteries* or availability in every part of the world.

Solar Energy is unlimited and usable even in cloudy weather, solar energy surpasses global energy consumption by 10,000 times. In addition to that, it can provide heat, cooling, lighting, electricity, and fuels through photovoltaic panels or concentrated solar power. Recent advancements have made solar panels affordable and long-lasting (around 30 years), made significant contributions to energy production in all over the world.

Wind Energy is using wind wind turbines on land or offshore, wind energy captures kinetic energy from moving air. Technological advancements have increased efficiency with taller turbines and larger rotors. The wind speeds vary by location though, the potential for the wind energy is higher with offshore wind powers more than inland wind power structures.

Geothermal Energy is derived from the Earth's internal heat, accessed via wells or other means. It uses hydrothermal reservoirs or enhanced geothermal systems to generate electricity. This technology is well-established and reliable, with over a century of successful operation. However, it cannot be used in every location.

Hydropower generates energy from water moving between elevations, hydropower can come from reservoirs or rivers. Reservoir hydropower has multiple uses beyond energy, such as irrigation and flood control. It's the largest renewable energy source in the electricity sector but is vulnerable to climate-induced changes and ecosystem impacts.

Ocean Energy uses the kinetic and thermal energy of seawater, ocean energy technologies are in early development stages. These include wave and tidal current devices. The potential for ocean energy far exceeds current human energy needs.

Bioenergy is produced from organic materials (biomass) like wood, manure, and crops, bioenergy is primarily used in rural areas for heating and cooking. Modern systems use dedicated crops and waste streams. While bioenergy emits fewer greenhouse gases than fossil fuels, its large-scale use can lead to environmental issues such as deforestation and land-use changes.

Lastly, As humankind we are at cross-roads to choose the way how we will power our future. We will rather continue using the fossil fuels or change to the renewable energy resources against planet-warming emissions and the effects of the climate change (Thompson, 2023). Even though, we have put relevant strategies such as *"Renewable Energy Directive"* to target as 20% of the **Project Number** : 2023-1- TR01- KA220- YOU- 000165777





renewable energy usage in all over EU (EC, 2024), we are way beyond the needed transition to the renewable energy.

RePowerEU Plan put in place continues to reduce the EU's dependence on Russian fossil fuels before 2030 (EC, 2024), by promoting the usage of renewable energy resources and diversification of the energy supplies in all over EU countries. Usage of renewable energy resources is a must to reduce the impact of the fossil fuels and reduce the dependency on the fossil fuel production. In addition to that, IPCC (Intergovernmental Panel on Climate Change) promotes the reduce the emissions in all over the world to reach out the net zero emission by 2050 (Thompson, 2023). In that sense, raising awareness on the usage of renewable energy and promoting these experiences among young people is required.

MAKING IT RENEWABLE

THEMES: RENEWABLE ENERGY ADOPTATION

OBJECTIVES

- To increase the understanding of the participants on renewable energy resources
- To create awareness about the usage of fossil fuels and its impact on the climate change
- To develop attitudes on the usage of different

DURATION AND PLANNING

- Fossil Fuel 101: 30 minutes
- Adopting our energy resource : 45 minutes
- Debriefing : 15 minutes

MATERIALS

- Internet
- Projector
- Flipcharts
- Handouts

RECOMMENDED METHOD

First, the trainer explains the participants the impact of the fossil fuels on the usage by showing the video (indicated in the Additional Readings section). Later, the trainer asks participants to divide into the four separate groups (groups of 5). During this process, the participants are asked to calculate, how much fossil fuel they use monthly as a small group by using the following instructions :

- How much fossil fuel I use for my vehicle?
- How much fossil fuel I use to heat my house?
- How much fossil fuel resource I use to cook?
- How many flight per year I use?
- Which fossil fuel resources I use? (Wood, Natural Gas, BioGas, Diesel etc.)

These questions can be extended depending on the group and they are guiding questions. In this process, they can use the find out the Co2 emissions of themselves as a group to see the differences between their consumption patterns and their Co2 emissions in their countries from their usage of car, the heating mechanisms in their house or usage of the flights. To do the My

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Climate Calculation Tool is introduced to the participants after developing their list of consumptions.



You can use the graphic above to provide participants with an idea about the shift between the resources³.

Later on, the participants are given to the handout of the renewable energy resources as a group. They are asked to change their consumption patterns by solely using the renewable energy resources handout with the possibilities within their countries.

After the participants change their consumption patterns and adopt the renewable energy resources to their daily life, they make presentation concerning the change if they have used the renewable energy resources in lieu of the fossil fuel resources. Later on, the participants calculate again according to that change their Co2 emissions and say the change.

After the overall process of presentations and calculations, the each group make their presentations concerning to their groups energy consumption. For debriefing and evaluation, the following questions can be used.

- What happened during the change?
- What was the hardest part of choosing the energy resources?
- How did you feel about the overall process?
- Do you think it can be managable to change every fossil fuel resource to renewable resource?
- Did you realise your impact on the envorienment by using fossil fuels?

ADDITIONAL INFORMATION AND READINGS

You can provide the video related to "Fossil Fuels" by using the following video: https://www.youtube.com/watch?v=zaXBVYr9Ij0

We suggest you use the My Climate Calculation Tool for this purpose, there are several ways to calculate though, it is the most efficient and simple way to implement with the young people. You can reach the tool from here : <u>https://co2.myclimate.org/en/calculate_emissions</u>

Renewable Energy Resources Handout

³ The images were taken from Teach Engineering (teachengineering.org). https://www.teachengineering.org/lessons/view/cub_environ_lesson09 Project Number : 2023-1- TR01- KA220- YOU- 000165777

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Solar Energy is unlimited and usable even in cloudy weather, solar energy surpasses global energy consumption by 10,000 times. In addition to that, it can provide heat, cooling, lighting, electricity, and fuels through photovoltaic panels or concentrated solar power. Recent advancements have made solar panels affordable and long-lasting (around 30 years), made significant contributions to energy production in all over the world.

Wind Energy is using wind wind turbines on land or offshore, wind energy captures kinetic energy from moving air. Technological advancements have increased efficiency with taller turbines and larger rotors. The wind speeds vary by location though, the potential for the wind energy is higher with offshore wind powers more than inland wind power structures.

Geothermal Energy is derived from the Earth's internal heat, accessed via wells or other means. It uses hydrothermal reservoirs or enhanced geothermal systems to generate electricity. This technology is well-established and reliable, with over a century of successful operation. However, it cannot be used in every location.

Hydropower generates energy from water moving between elevations, hydropower can come from reservoirs or rivers. Reservoir hydropower has multiple uses beyond energy, such as irrigation and flood control. It's the largest renewable energy source in the electricity sector but is vulnerable to climate-induced changes and ecosystem impacts.

Ocean Energy uses the kinetic and thermal energy of seawater, ocean energy technologies are in early development stages. These include wave and tidal current devices. The potential for ocean energy far exceeds current human energy needs.

Bioenergy is produced from organic materials (biomass) like wood, manure, and crops, bioenergy is primarily used in rural areas for heating and cooking. Modern systems use dedicated crops and waste streams. While bioenergy emits fewer greenhouse gases than fossil fuels, its large-scale use can lead to environmental issues such as deforestation and land-use changes.

Let's change our energy choices from fossil fuels to renewable resources! In this activity, we ask you to :

- Choose energy resource viable to your country

- Check the possible resources that can be beneficial to reduce the fossil fuel consumption
- Revise what can you change and what you cannot change in your context
- Recalculate your carbon footprint after changing the resources

Before starting write down your current Carbon Footprint :

After changing the resources to renewable energy resources as much as possible, write down your Carbon Footprint :





ENERGY CHANTS

THEMES: RENEWABLE ENERGY ADAPTATION

OBJECTIVES

- To teach participants about the renewable energy usage
- To increase the awareness of participants on renewable energy adaptation
- To make participants distinguish the renewable and non-renewable energy resources

DURATION AND PLANNING

- Non-renewable Energy Resources : 30 minutes
- Renewable Energy Resources : 30 minutes
- Debriefing : 30 minutes

MATERIALS

- Paper Tape
- 10 Flipchart Papers
- Board markers
- Chant Sheets

RECOMMENDED METHOD

The facilitator asks the participants to look at the non-renewable energy side of their chant sheets. Then the facilitator explains what non-renewable energy resource means and read over the chant sheets with the students, emphasizing the essential facts about each energy source. *You can use the chant sheets or create your own according to "Additional Information and Readings" section.* After each resource, the facilitator asks participants to demonstrate each energy chant for that source.

After practicing the each chant with the participants, the facilitator says a fact about the nonrenewable energy resource and ask participants to act out the chant once they identify the source. During this process, until the all group understand the resource, leave the participants to continue the chant.

Implement the same process for the renewable energy resources. Than, ask participants to make a line and stick each energy resource whether renewable or non-renewable the signs in their back. The participants would not know which resource they represent and they have to guess by asking questions to each other.

When the trainer is sure that the all participants know the chants, distribute Using the chant sheets, they must ask fellow students questions that require a yes or no answer. Trainer gives examples of acceptable questions. They may not ask, *"Am I biomass?"* Explain to them that once they figure out which energy source they represent, they should begin performing the chant and seek out their fellow source members. Once all participants are in groups, have them design and draw a poster about their energy source.For the debriefing, the facilitator should use the following guiding questions :

- How was the process?
- Did you realise the differences between the energy resources and its impact?
- How did you feel about the overall process?
- Did you realise your impact on the environment by using fossil fuels?
- Did you realise the usage of non-renewable energy resources and their benefits to our earth?

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After the finalisation of the debriefing, the participants put the posters around the seminar room to be used in later sessions and evaluation for reflection.

ADDITIONAL INFORMATION AND READINGS

CHANT LIST

PETROLEUM : Blup, blup, petroleum!

Begin with your hands below your waist in a cup shape facing down. As you say "Blup" move your hands upward like oil coming from the ground. When you reach "petroleum!" throw your hands up in the air like an old-fashioned oil well that just struck oil.

COAL: Working in a coal mine (grunt)—hard hat!

While chanting, "Working in a coal mine," pretend that you are shoveling coal. At "grunt—hard hat!" throw the coal over your shoulder.

NATURAL GAS: Natural gas, gas (snap, snap)...a real gas!

After chanting, "Natural gas, gas," snap once with your right hand, once with your left, and follow with "a real gas!"

URANIUM: Uranium, uranium, split goes the atom!

Begin by clenching your hands in fists and begin hitting your fists together. As you say "split" take your hands and pull them apart with your fingers spread like atoms splitting.

PROPANE: Compress, compress, compress...pro-pane!

During the "Compress" sequence, start with your hands apart facing each other and move them closer together. When you clasp your hands together, say "pro-pane" and begin a wave motion (like a liquid).

HYDROPOWER: Falling water, hydropower, hydropower!

With your fingertips touching, hold your hands under your chin and glide your hands down like a waterfall during "Falling water." For "hydropower, hydropower," spin your hands like a turbine.

BIOMASS: Garbage, wood, landfill gas...it's all biomass!

Hold your nose while chanting, "Garbage, wood, landfill gas." During "it's all biomass!" shake your hands near your shoulders.

GEOTHERMAL: Shhhhh...ge-o-ther-mal!

Place your hands together flat (without interlocking fingers) below your waist. As you say "Shhhhh," slowly move your hands upward, and on "geothermal," separate your hands to act like a geyser.

WIND: Wind is moving air; energy is there!

Throughout the chant, spin one arm like a wind turbine.

SOLAR: Sun shine bright, give us light!

Make a circle with your arms over your head as you say "Sun shine bright," then throw your hands out like rays of the sun as you say "give us light!"





SYMBOL LIST



You can use the symbols above by cutting them in stickers to use it during the activity. This method is developed by using the resources provided in the NEED project(<u>www.need.org</u>).

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SUSTAINABLE CONSUMPTION PRACTICES

When you think about climate change, what comes to your mind first? Which challenges do you think about? Likely, your mind jumps to issues such as greenhouse gas emissions through transportation or energy consumption, or deforestation. Let's think about other topics also and see how we can help our planet with our consumption practices:

Shopping directly impacts your carbon footprint, the measure of greenhouse gas emissions associated with our activities. The production, transportation, packaging, and energy consumption of goods and services all contribute to our carbon footprint.

Even waste generation and food choices play a role. By making sustainable shopping choices, such as opting for eco-friendly products, supporting local and energy-efficient options, and reducing waste, we can significantly reduce your carbon footprint and contribute to a greener, more sustainable future.

By making conscious choices, you can positively influence your carbon footprint and promote a greener lifestyle. From eco-friendly product selections to responsible waste management, will empower you to play an active role in preserving the planet's health while enjoying the benefits of more environmentally conscious shopping.

Let's think about:

Food waste may seem like a drop in the ocean. After all, what difference are a few thrown-out leftovers going to make?

As it turns out, food waste is a major global environmental challenge, and the UN is aiming to cut global food waste by 50 percent until 2030 (BBC, 2020; Lai, 2021; UN, 2021). Worldwide, a third of all food, which amounts to 2.5 billion tonnes yearly, is wasted or lost. This means that if food waste was a country, it would be the third largest greenhouse gas emitter, only surpassed by China and the United States (Lai, 2021). The EU alone produces 59 million tonnes of food waste every year, or 131 kg per capita, which represents seven percent of the EU's greenhouse gas emissions (European Commission, n.d.).

Fashion waste poses significant environmental concerns due to the excessive production and consumption of clothing. The main concerns include the large volume of discarded garments ending up in landfills, low utilization rates of clothing items before disposal, the environmental impact of textile production and disposal, the prevalence of synthetic fabrics contributing to microplastic pollution, and the limited recycling of discarded clothing. These issues highlight the urgent need for more sustainable practices and a shift towards a circular fashion economy to address the environmental consequences of fashion waste.

Plastic waste: Our communities face a rising issue of plastic waste pollution, impacting local ecosystems, waterways, and public spaces. You believe that it is essential to find innovative and sustainable solutions to diminish plastic waste and promote responsible plastic consumption in your community.

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SUSTAINABLE CONSUMPTION

THEMES: CONSUMER BEHAVIOR - REDUCING YOUR CARBON FOOTPRINT

OBJECTIVES

- Participants will understand the importance of consumer behaviour in reducing their carbon footprint.
- Learn practical eco-friendly habits and strategies to incorporate into daily lives.

DURATION AND PLANNING

- Duration: 90 minutes
- Brainstorming and Vocabulary Introduction (15 minutes)
- Presentation (~30 minutes)
- Presentation (~30 minutes)
- Quiz: Self-reflection (~15 minutes)

MATERIALS

- Internet access
- Laptops or tablets/phone for each participant.
- Digital or physical Whiteboard (e.g., Miro, Canva, Zoom whiteboard)
- Projector for presentations.
- Handouts (digital or printed format) (See document : REDUCING YOUR CARBON FOOTPRINT HANDOUTS.docx)
- Digital resources on consumer behavior and carbon footprint reduction.
- Flipchart (digital or paper)

RECOMMENDED METHOD

Step 1: Brainstorming and Vocabulary Introduction (15 minutes)

- Welcome participants in the session. Today, we will explore consumer behavior and how it plays a crucial role in reducing our carbon footprint.
- Use an icebreaker to create a positive and engaging atmosphere. Ask participants about their Eco-Friendly habits:





Ways To Be More Eco Friendly



Change one light bulb to a compact fluorescent

Turn off desktop computer at night instead of putting them to sleep



Turn the lights off every time you leave

Make crafts using only materials you have around the house



Make your own cleaning supplies

000

- Quick Activity: Let's list daily activities that contribute to our carbon footprints. Think about things like driving, using electricity, or eating certain foods.
- Exploring Emissions: Consider both direct sources (like burning fuel for transport or energy) and indirect sources (like the emissions from making, moving, using, and throwing away products we buy). This helps us see the full picture of our environmental impact.
- Group Chat: Let's talk about how people and organizations can reduce their environmental footprint. We'll discuss "mitigation efforts" - actions that remove carbon dioxide or prevent emissions. These include using renewable energy, choosing efficient tech, supporting sustainable industry practices, and backing projects like reforestation or carbon capture.
- Personal Action: Think about practical ways you can lower your own carbon footprint in everyday life.

Step 2: Presentation (~30 minutes)

a. Activity:

Hands-on Learning:

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- What is a Carbon Footprint? Let's start by understanding what we mean by "carbon footprint." It's the total amount of greenhouse gases that our activities produce, either directly or indirectly. We usually measure this in terms of how much carbon dioxide (CO2) is released.
- Success Stories Let's look at some inspiring examples of people and places that have successfully lowered their carbon footprints:
- We could explore stories about:
- Eco-friendly businesses and their practices
- Cities using more renewable energy
- Individuals living zero-waste lifestyles
- These real-world cases will show us practical ways to reduce our environmental impact.
- Examples:
 - Eco-Friendly Businesses: Patagonia is a well-known example of a company that has integrated sustainability into its business model. They have implemented various initiatives such as using recycled materials in their products, reducing water consumption in their manufacturing processes, and advocating for environmental causes. (<u>Source</u>)
 - Cities Implementing Renewable Energy Initiatives: Copenhagen, Denmark, stands out as a city that has made significant strides in renewable energy. With a goal to be carbon neutral by 2025, Copenhagen has invested in wind power, district heating, and energy-efficient buildings. The city's commitment to sustainability has led to a noticeable decrease in carbon emissions. <u>(Source)</u>
 - Individuals Adopting Zero-Waste Lifestyles: Lauren Singer, known for her blog "Trash is for Tossers," gained attention for fitting four years' worth of her trash into a single mason jar. She achieved this by adopting a zero-waste lifestyle, which involves reducing consumption, recycling, composting, and opting for reusable alternatives to single-use items. (Source)
- Group Conversation:

Let's talk about carbon footprints. Share your thoughts and experiences on questions like:

- What everyday habits might increase our carbon emissions?
- How do our food choices affect our environmental impact?
- What's the connection between transportation and carbon emissions?
- Are there any myths about carbon footprints or sustainability you've heard? Action Steps:
 - To wrap up, let's explore ways we can shrink our carbon footprints. We'll discuss practical actions such as:
 - Saving energy
 - Recycling
 - Using public transport
 - Supporting clean energy sources

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<u>Step 3: Presentation (~30 minutes)</u> Engage participants in a guided practice session using online collaborative tools.

- Divide participants into groups and assign tasks related to carbon footprint reduction strategies.
- Share a scenario: in the scenario there is fictional private household, ask participants to choose one of them and collect the ideas of participants
- a. Classroom Activity:
- Each group will thoroughly analyze the assigned household, considering the following aspects:
- Members and Occupations: Assess the impact of each member's occupation on the household's lifestyle and sustainability practices.
- Dietary Choices: Evaluate the sustainability of the household's dietary preferences and grocery habits.
- Travel Habits: Analyze the frequency and modes of transportation used by the household for various purposes such as work, holidays, and personal activities.
- Financial Status: Discuss how the household's financial situation influences its sustainability practices.
- Household Characteristics: Examine the type of house, construction materials, energy consumption, and any renewable energy sources utilize
- And then each group takes the following **test about Carbon Footprint**. The answers to the quiz should be given depending on the habits and characteristics of the fictional family they choose.
- Consider each member of the family singularly and discuss every question of the quiz in the group before answering.
- Each group will prepare a short presentation (or essay for Moodle) summarizing their analysis and findings.

Last step: Quiz: Self-reflection (~15 minutes)

- Reinforce learning with a <u>mini-quiz</u> based on the presented material. (<u>https://view.genially.com/6475acc5872f180018e90ca3/interactive-content-what-do-you-know-about-the-carbon-footprint</u>)
- Provide immediate feedback to reinforce learning outcomes.

ADDITIONAL INFORMATION AND READINGS

• Carbon Trust: Website: <u>The Carbon Trust (https://www.carbontrust.com/en-eu)</u>

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- The Carbon Trust provides a range of resources and guides for businesses and individuals on reducing carbon footprints, including practical advice, case studies, and tools for measuring and managing carbon emissions.
- World Resources Institute (WRI): <u>Website: WRI Climate (https://www.wri.org/climate)</u>
 - WRI offers research, insights, and tools for understanding and addressing climate change, including strategies for reducing carbon footprints in various sectors such as energy, transportation, and agriculture.

VOCABULARY LIST

Emissions: Release of gases or particles into the atmosphere, often as a result of human activities.

Greenhouse gases: Gases that trap heat in the Earth's atmosphere, contributing to the greenhouse effect and global warming.

Carbon dioxide (CO2): A greenhouse gas produced by burning fossil fuels and other processes, a major contributor to climate change.

Fossil fuels: Natural resources like coal, oil, and natural gas formed from the remains of ancient organisms, commonly burned for energy.

Renewable energy: Energy generated from natural resources such as sunlight, wind, and water, which are replenished naturally.

Sustainability: The practice of meeting present needs without compromising the ability of future generations to meet their own needs.

Energy efficiency: Using less energy to accomplish the same tasks, reducing energy waste and environmental impact.

Carbon offsetting: Compensating for carbon emissions by investing in projects that reduce or capture greenhouse gas emissions elsewhere.

Carbon neutral: Achieving a balance between carbon emissions and carbon removal or offsetting activities.

Emissions trading: A system allowing companies or countries to buy and sell permits to emit greenhouse gases, aiming to reduce overall emissions.

Climate change mitigation: Efforts to reduce or prevent the harmful effects of climate change, such as reducing greenhouse gas emissions.

Ecological footprint: The measure of human demand on Earth's ecosystems, often expressed in terms of the amount of land and resources required to sustain a particular lifestyle.

Low-carbon lifestyle: A lifestyle that minimizes carbon emissions and environmental impact, often through choices such as energy-efficient transportation and sustainable consumption.

Carbon footprint calculator: A tool used to estimate an individual's or organization's greenhouse gas emissions based on various factors like energy use, transportation, and waste production.

THEMES: CONSUMER BEHAVIOR – FASHION WASTE: SUSTAINABLE FASION PRACTICES

OBJECTIVES

This lesson aims to raise awareness about the environmental impact of fashion waste and empower participants with knowledge on sustainable fashion practices. Through interactive

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activities, videos, and quizzes, participants will explore the lifecycle of fashion products and discover ways to minimize fashion waste.

DURATION AND PLANNING

DURATION: 90 MINUTES

- Brainstorming and Vocabulary Introduction (10 minutes)
- Interactive Scenario and Presentation (30 minutes)
- Guided Practice and Group Analysis (30 minutes)
- Guided Practice and Group Analysis (20 minutes)

MATERIALS

- Internet access
- Laptops or tablets/phone for each participant.
- Digital or physical Whiteboard (e.g., Miro, Canva, Zoom whiteboard)
- Projector for presentations.
- Handouts (digital or printed format)
- Digital resources on consumer behavior and fashion waste reduction.
- Various types of fashion waste items (e.g., old clothing, fabric scraps, plastic hangers, shoe boxes, magazines)
- Large bins or boxes labelled with different stages of the fashion lifecycle: "Production," "Consumption," "Disposal".
- Timer

RECOMMENDED METHOD

Step 1: Brainstorming and Vocabulary Introduction (10 minutes)

- Video Introduction: We'll start with a short 1-minute video, <u>share the video</u> (<u>https://www.youtube.com/watch?v=BiSYoeqb_VY</u>) about a T-shirt's lifecycle. After watching, share your thoughts: What did you learn? What parts were you already familiar with?
- Understanding Media and Information Literacy (MIL): Before we dive deeper, let's talk about MIL:
- Activities:
 - Media Analysis: Let's explore our daily information sources:
 - Think About Your Info:Where do you usually get your news and information? (Social media, news sites, online platforms, etc.)
 - Why is it important to question what we read, especially on complex topics like fashion waste?

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- How can we tell if a source is trustworthy?
- Let's discuss how to approach information critically, particularly when researching complicated issues.

Information Evaluation: Let's learn how to evaluate online information:

Spotting Reliable Sources:

Check who wrote it:

- What are their qualifications?
- Are they experts in this field?

Look for bias:

- Is the information balanced?
- Does it favor a particular viewpoint?

Compare with trusted sources:

 \circ Does the info match what reputable sites say?

Tackling Misinformation: We'll look at some misleading examples about fashion waste.

- How can we identify these?
- What steps can we take to fact-check?

Practice together: Let's try out these skills on some real examples.

- Introduce participants to strategies for evaluating information online, such as assessing the author's credentials, examining biases, and cross-referencing information with reputable sources. Provide examples of misinformation or misleading content related to fashion waste and discuss how to identify and counteract such misinformation. During the Information Evaluation segment, participants learn to assess online information by checking the author's credentials, identifying biases, and cross-referencing with reliable sources. They explore examples of fashion waste misinformation to understand how to detect and counteract it effectively.
- Digital Literacy Skills: Demonstrate how to effectively search for digital resources on fashion waste using search engines, databases, and reputable websites. Teach participants how to discern between reliable and unreliable sources by examining domain names, publication dates, and authorship.
- Media Literacy Discussion: Facilitate a discussion on the role of media in shaping perceptions of fashion waste and sustainable fashion practices. Encourage participants to critically analyze media representations of fashion consumption, including advertising, social media influencers, and fashion industry messaging. Example:





- "Greenwashing" by Fast Fashion Brands: Some fast fashion brands may claim to be environmentally friendly or sustainable without providing concrete evidence or transparency about their practices. For example, a fast fashion company might promote a "green" clothing line without disclosing the environmental impact of their overall production process, which still heavily contributes to fashion waste.
- Misleading Recycling Claims: Some clothing labels may advertise items as "recyclable" or "eco-friendly" without specifying how or where they can be recycled. This lack of clarity can mislead consumers into believing that the item is more sustainable than it actually is. Additionally, certain materials used in clothing, such as blended fabrics or synthetic fibers, may be challenging to recycle effectively, making these claims misleading.
- By examining these examples, participants can identify common tactics used to manipulate information and develop the critical thinking skills needed to discern reliable information from misinformation in the context of fashion waste.

Step 2: Interactive Scenario and Presentation (30 minutes)

- Do research about fashion waste.
- Prepare a presentation and find <u>a video</u> highlighting the journey of fashion waste and the importance of sustainable fashion.
- a. Activity:
- Discuss participants' answers after using the fashion waste calculator to understand the environmental impact of their fashion choices.
- Share an informative presentation about fashion waste, discussing the lifecycle of fashion products, from production to disposal, emphasizing the need for sustainable practices.

Let's reflect on what we've learned about fashion waste:

- Environmental Impact: How does the fashion industry affect our planet?
- Fast Fashion and Waste: What's the link between quick-changing trends and excess waste?
- Sustainable Solutions: Can you think of any eco-friendly fashion practices?
- Recycling and Upcycling: What new ways are there to reuse or repurpose old clothes?
- Consumer Power: Why does it matter if shoppers know about these issues?

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- Global Effects: How does fashion waste impact different parts of the world?
- Call to Action: What's the main takeaway? What can we do to help?
- Share your thoughts on these questions. There are no wrong answers let's discuss what you've understood and any ideas you have.

Step 3: Guided Practice and Group Analysis (30 minutes)

- Divide participants into groups and assign them different aspects of fashion waste to analyze.
- Provide guidance on how to assess the impact of fashion waste on various stages of the product life cycle.
- Prepare the materials for the game
- a. Activity: Fashion Waste Sorting Game

Materials Needed:

- Various types of fashion waste items (e.g., old clothing, fabric scraps, plastic hangers, shoe boxes, magazines)
- Large bins or boxes labeled with different stages of the fashion lifecycle: "Production," "Consumption," "Disposal".
- Timer

Procedure:

- Setup: Place the bins labeled with "Production," "Consumption," and "Disposal" in different areas of the room. Spread out the various types of fashion waste items on tables or the floor.
- Instructions: Divide the participants into small groups and assign each group a bin to start with. Explain that they will have 5 minutes to sort as many fashion waste items as they can into the corresponding bins.
- Sorting Activity: Start the timer and allow the groups to begin sorting the fashion waste items. Encourage them to work quickly and collaborate to make decisions about where each item belongs.

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- Discussion: Stop the activity when the timer goes off. Gather the participants together and review the items in each bin. Discuss why certain items were placed in specific categories and the environmental impact associated with each stage of the fashion lifecycle.
- Reflection: Conclude the activity by asking participants to reflect on what they've learned. Prompt them to consider how their own consumption habits contribute to fashion waste and what actions they can take to reduce it.
- Follow-Up: Assign a short reflection in written format where participants describe one thing they learned from the activity and one action they plan to take to reduce fashion waste in their own lives.

Last step: Guided Practice and Group Analysis (20 minutes) Reinforce learning with a quiz on fashion waste and sustainable fashion practices.

- Share <u>a video quiz creation</u> on Edpuzzle to assess participants' understanding.
- Provide immediate feedback and discuss the correct answers to reinforce learning outcomes. Correct answers automatically appear on the question.
- Self-reflection: do the <u>Fashion waste calculator</u> with participants.

ADDITIONAL INFORMATION AND READINGS

Ellen MacArthur Foundation - <u>Circular Fashion</u>: The Ellen MacArthur Foundation offers resources and insights into the concept of circular fashion, which aims to eliminate waste and pollution, keep products and materials in use, and regenerate natural systems.

<u>Fashion Revolution</u>: Fashion Revolution is a global movement calling for greater transparency, sustainability, and ethics in the fashion industry. Their website offers reports, guides, and toolkits on topics such as sustainable materials, supply chain transparency, and ethical labor practices.

<u>Sustainable Apparel Coalition</u>: The Sustainable Apparel Coalition is an industry-wide group working to reduce the environmental and social impacts of apparel and footwear products. Their website provides tools and resources for companies to measure and improve their sustainability performance.

<u>Common Objective</u>: Common Objective is a platform connecting fashion professionals with sustainable business solutions. Their website offers articles, case studies, and resources on sustainable fashion practices, including materials, manufacturing, and supply chain management.

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<u>The Fashion for Good Initiative</u>: Fashion for Good is a global platform for innovation in sustainable fashion. Their website features news, events, and resources on sustainable fashion technologies, circular business models, and initiatives driving positive change in the industry.

VOCABULARY

Fast fashion: A business model characterized by quickly changing fashion trends and producing inexpensive clothing, often resulting in high levels of waste and environmental harm.

Textile waste: Discarded fabric or clothing materials that contribute to environmental pollution and landfill accumulation.

Landfill: A designated area for the disposal of waste materials, including fashion waste, where they are buried underground.

Upcycling: The process of transforming discarded materials or products into new items of higher quality or value.

Sustainable fashion: Clothing produced with consideration for environmental and social impact, often using eco-friendly materials and ethical labor practices.

Circular economy: An economic system aimed at minimizing waste and maximizing the reuse, recycling, and regeneration of resources.

Clothing consumption: The act of purchasing and using clothing, which can contribute to environmental degradation and waste.

Overproduction: Excessive manufacturing of clothing beyond demand, leading to surplus inventory and waste.

Disposable fashion: Clothing designed for short-term use and rapid disposal, contributing to fashion waste and environmental harm.

Second-hand clothing: Previously owned clothing that is resold or donated for reuse, reducing the demand for new clothing and decreasing waste.

Textile recycling: The process of reprocessing textile materials to create new products, reducing the environmental impact of fashion waste.

Environmental impact: The effect of human activities on the natural environment, including pollution, resource depletion, and habitat destruction.

Ethical fashion: Clothing produced in accordance with ethical and sustainable practices, including fair labor conditions and environmental responsibility.

Slow fashion: An approach to fashion characterised by mindful consumption, quality over quantity, and respect for the environment and workers.

THEMES: CONSUMER BEHAVIOR – FOOD WASTE: ENVIROMENTAL CONSEQUENCES OF FOOD WASTE OBJECTIVES

This lesson is designed to increase learners' awareness of the environmental consequences of food waste and equip them with knowledge on sustainable consumption. Through engaging

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activities, videos, and discussions, learners will investigate the causes of food waste and learn strategies to reduce it, highlighting the significance of lowering their carbon footprint. They will be able to identify the causes of food waste and possible solutions. Learners can assess their contributions to food waste and create an action plan for minimizing it through behavioral changes.

DURATION 50 MINUTES

- Brainstorming and Vocabulary Introduction (15 minutes)
- Interactive Scenario and Presentation (30 minutes)
- Guided Practice and Group Analysis (30 minutes):
- Self-reflection (15 minutes)

MATERIALS

- Internet access
- Laptops or tablets/phone for each participant.
- Digital or physical Whiteboard (e.g., Miro, Canva, Zoom whiteboard)
- Projector for presentations.
- Handouts (digital or printed format)
- Flipchart (digital or paper)

RECOMMENDED METHOD

Step 1: Brainstorming and Vocabulary Introduction (15 minutes)

Introduction: Briefly explain the importance of addressing food waste and the goals of the activity.

• Use <u>Miro</u> app for this:



- Problem Identification:
 - Write down the main causes of food waste on the notes _(e.g., overbuying, improper storage, etc.).
 - Quickly discuss these causes with participants to ensure understanding.
- Solution Generation:
 - Set the timer for 5 minutes.

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- Ask participants to brainstorm and write on post-its or shout out as many solutions as possible to address one of the causes listed on the whiteboard.
- Write down all suggested solutions on the whiteboard.
- Evaluation and Discussion:
 - After the timer goes off, briefly discuss each suggested solution.
 - Encourage participants to evaluate the feasibility and effectiveness of each idea.
 - \circ $\;$ Identify the most promising solutions based on group consensus.
- Conclusion:
 - Summarize the key solutions generated during the activity.
 - Encourage participants to consider implementing these solutions in their daily lives to reduce food waste.
- After Brainstorming, participants will do this activity about Media and Information Literacy, they will analyze various media representations of food waste to understand how it is portrayed in different contexts:
- 1. Divide learners into small groups.
- Provide each group with a selection of media sources such as news articles, social media posts, and advertisements related to food waste. <u>Example</u> (<u>https://www.delicious.com.au/food-files/news-articles/article/new-study-reveals-instagrams-devastating-food-waste-issue/IUSNvMCN?nk=f6b29e41baf03d642c76af9b5ffadddd-1728384956</u>)
- **3**. Instruct participants to critically analyze the content of each media source, considering factors such as:
 - Tone and language used in the portrayal of food waste.
 - Biases or perspectives presented in the media.
 - Target audience and intended message.
 - Visual elements and emotional appeal.
- 4. Encourage participants to take notes and discuss their observations within their groups.
- 5. After analyzing the media sources, facilitate a discussion where each group presents their findings and insights.
- 6. Guide the discussion to explore how different media platforms shape perceptions and attitudes toward food waste.

Step 2: Interactive Scenario and Presentation (30 minutes)

- Conduct research about food waste.
- Prepare a presentation and find a video highlighting the impact of food waste on the environment and the importance of sustainable consumption.

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Classroom Activity:

- Discuss learners' answers to assess their understanding of food waste and its consequences.
- Share the <u>video about Food Waste (5 min)</u>: After the video, engage participants in discussions by asking questions such as:
 - 1. How does food waste contribute to environmental degradation?
 - 2. What are the main causes of food waste in households and industries?
 - 3. What are some strategies to minimize food waste at different stages of the food supply chain?
 - 4. Why is it important to adopt sustainable consumption habits?
 - 5. How can individuals make a difference in reducing food waste?

Step 3: Guided Practice and Group Analysis (30 minutes):

- Prepare a game for learners, in order to put into practise what they learned during the first part.
- Divide learners into groups and assign them different aspects of food waste to analyze.
- Provide guidance on how to assess the impact of food waste on various stages of the food supply chain.

Classroom Activity: Eco friendly Grocery Shopping

- Instructions: Begin by introducing the topic of food waste and its multifaceted environmental impacts, including greenhouse gas emissions from decomposition, water and land resource depletion, and loss of biodiversity. Emphasize the critical importance of making sustainable choices when grocery shopping to mitigate these impacts and foster a healthier planet for current and future generations.
- Explain that the activity will involve a challenge where participants have to select groceries with the least environmental impact.
- Grocery Shopping Challenge: Provide a list of common grocery items (e.g., fruits, vegetables, meat, dairy, grains, packaged goods) either on a virtual whiteboard or verbally.
- Set a timer for 10 minutes. Instruct participants to select items from the list while considering their carbon footprint and biodiversity impact. Encourage them to think about factors such as packaging, transportation, production methods, and seasonality.
- Participants can either write down their selections on paper or type them in the chat (if online).
- Remind them to aim for choices that minimize waste and environmental harm.





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- Discussion (3 minutes): Once the time is up, facilitate a discussion about the choices made by participants. Ask questions such as:
 - 1. What factors did you consider when selecting your groceries?
 - 2. Did you prioritize certain items over others to reduce environmental impact?
 - 3. Were there any surprising discoveries or challenges during the activity?
 - 4. How can these principles be applied in real-life grocery shopping situations?
- Wrap-Up: Today, we delved into the significant impact our food choices have on the environment. By being mindful of what we put in our shopping carts, we can make a positive difference in reducing our ecological footprint. Here's a recap of the key points we discussed regarding the environmental impact of food choices:
 - **Plant-Based Options**: Choosing plant-based foods over animal products can greatly reduce greenhouse gas emissions, land and water use, and deforestation associated with livestock farming.
 - **Local and Seasonal Produce**: Opting for locally sourced and seasonal fruits and vegetables reduces the carbon footprint associated with transportation and supports local farmers.
 - Organic and Sustainable: Selecting organic and sustainably produced foods helps minimize the use of synthetic pesticides and fertilizers, protects biodiversity, and promotes soil health.
 - **Avoiding Overpackaged Items**: Opt for products with minimal or recyclable packaging to reduce waste, especially single-use plastics that contribute to pollution.
 - **Mindful Seafood Choices**: Choose sustainably sourced seafood to support healthy ocean ecosystems and prevent overfishing of vulnerable species.
 - Reducing Food Waste: Buying only what you need, properly storing perishable items, and repurposing leftovers can significantly reduce food waste, which contributes to methane emissions in landfills.
 - **Supporting Food Redistribution:** Participate in food donation programs or share surplus food with neighbors to prevent edible food from ending up in landfills and to support those facing food insecurity.
 - **Eco-Friendly Eating Habits:** Consider reducing meat consumption, practicing portion control, and embracing a more plant-centered diet to lessen the environmental impact of our food choices.

Last step: Quiz: Self-reflection (10 minutes)

- Reinforce learning with a quiz on food waste and sustainable consumption practices.
- Share a video quiz creation on Edpuzzle to assess participants' understanding. (<u>https://edpuzzle.com/media/65ba856f9bb9ce084780a66b</u>)

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• Provide immediate feedback and discuss the correct answers to reinforce learning outcomes.

ADDITIONAL INFORMATION AND READINGS

Links to external resources on sustainable fashion practices and innovative solutions to food waste

<u>Food and Agriculture Organization (FAO)</u> of the United Nations - Save Food Initiative: The FAO's Save Food Initiative aims to reduce food loss and waste globally. Their website offers reports, guidelines, and case studies on food waste reduction strategies and innovative solutions.

"<u>Turning Food Waste Into Resources: 5 Innovative Solutions</u>" - This article explores five creative ways that companies and organizations are addressing food waste, including upcycling food scraps into new products, using technology to track and reduce waste, and implementing community-based solutions

<u>6 Creative Solutions for Reducing Food Waste</u>" - In this article, six innovative strategies for reducing food waste are highlighted, including turning surplus food into meals for those in need, using food waste to generate renewable energy, and implementing smart packaging technologies to extend food shelf life.

VOCUBULARY

Food loss: The decrease in food quantity or quality at various stages of the food supply chain, from production to consumption.

Food waste management: Strategies and practices aimed at reducing, reusing, or recycling food waste to minimize environmental impact and resource loss.

Composting: The process of decomposing organic materials like food scraps into nutrient-rich soil conditioner, reducing waste and supporting soil health.

Food surplus: Excess food that is not consumed or sold and may be disposed of, contributing to food waste.

Expiration date: The date printed on food products indicating the end of their shelf life or recommended use, often leading to food waste if not consumed before.

Food recycling: The process of diverting food waste from landfills and converting it into useful products such as compost, biogas, or animal feed.

Food recovery: The practice of rescuing surplus or edible food from being wasted and redistributing it to those in need or alternative uses.

Waste prevention: Efforts to reduce the generation of food waste through measures such as meal planning, proper storage, and portion control.

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Food distribution: The process of transporting and delivering food products from producers to consumers, with potential for food loss or waste along the way.

Food conservation: Methods and techniques for preserving and extending the shelf life of food products, reducing the likelihood of spoilage and waste.

Landfill diversion: Redirecting food waste away from landfills towards more sustainable disposal or recovery methods, such as composting or recycling.

Sustainable agriculture: Farming practices that do not destroy the environment.





THEMES: PLASTIC WASTE: SUSTAINABLE PLASTIC CONSUMPTION PRACTICES

OBJECTIVES

This lesson seeks to increase awareness of the environmental effects of plastic waste while equipping participants with knowledge about sustainable plastic consumption practices. The aim is to :

- To understand the environmental impact of plastic waste
- To explore the causes and sources of plastic waste in their community
- To identify and evaluate potential solutions to diminish plastic waste
- To develop an actionable plan to address the problem and raise awareness in their community
- To assess the effectiveness of your proposed solutions

DURATION AND PLANNING

DURATION : 60 MINUTES

- Brainstorming and Vocabulary Introduction (15 minutes)
- Interactive Scenario and Presentation (20 minutes)
- Guided Practice and Group Analysis (15 minutes)
- Quiz: Self-reflection (10 minutes)

MATERIALS

- Internet access
- Laptops or tablets/phone for each participant.
- Digital or physical Whiteboard (e.g., Miro, Canva, Zoom whiteboard)
- Projector for presentations.
- Handouts (digital or printed format)
- Flipchart (digital or paper)

RECOMMENDED METHOD

Step 1: Brainstorming and Vocabulary Introduction (15 minutes)

- Start the session by introducing the topic.
- Explain that the challenge is to brainstorm creative ways to design products that minimize or eliminate the use of plastic.
- Divide the participants into groups or breakout rooms
- Provide a digital whiteboard or shared document for each group to record their ideas: example: <u>Miro</u>
- Set a timer for 5 minutes and encourage groups to brainstorm ideas for plastic-free designs. Ideas could include eco-friendly packaging alternatives, sustainable product materials, or innovative reusable products.





• Design Showcase: After the brainstorming session, reconvene the class in the main virtual space. Invite each group to present one or two of their best design ideas to the class.

Step 2: Interactive Scenario and Presentation (20 minutes)

- Share a <u>video</u> highlighting the impact of plastic waste on the environment and the importance of sustainable consumption related to plastic usage.
- Engage participants in discussions based on the video and a prepared presentation covering various aspects of plastic waste, including alternatives and recycling methods. Activity:
- Discuss participants' understanding of plastic waste and its consequences based on their prior knowledge and after Brainstorming.
- Share a presentation about Plastic Waste: After the presentation, engage learners in discussions by asking questions such as:
- 1. How does plastic waste contribute to environmental pollution and harm marine life?
- 2. How has your understanding of the environmental impact of plastic waste evolved as a result of participating in this lesson?
- 3. What are the main sources of plastic waste in our daily lives and industries?
- 4. What are some effective strategies to reduce plastic waste, both individually and collectively?
- 5. Why is it important to adopt alternatives to single-use plastics?
- 6. How can individuals and communities promote a plastic-free lifestyle?
- 7. Can you identify specific causes and sources of plastic waste in your community that you were unaware of before engaging in this lesson?
- Then, share an <u>informative video (2,5 min)</u> that covers various aspects of plastic waste, including sustainable alternatives to single-use plastics and the importance of recycling and proper waste management practices. Additionally, discuss how to support initiatives aimed at reducing plastic pollution and advocating for policy changes.

Step 3: Guided Practice and Group Analysis (15 minutes)

Teacher preparation:

• Plastic Waste Bingo Cards: Create Bingo cards with different squares filled with facts, tips, or scenarios related to plastic waste. Each square should contain a statement or scenario related to plastic waste. Make sure to have enough copies for each participant in the group. For example:







- Compile Plastic Waste Facts and Tips: Gather a list of plastic waste facts, tips, and scenarios to call out during the game. These can be sourced from reliable resources or tailored to suit the age and understanding level of your participants.
- Prepare Prizes (Optional): If you decide to offer prizes for Bingo winners, prepare them in advance. Consider prizes that are related to sustainability or reducing plastic usage.
- Plan Discussion Points: Think of discussion points or questions to facilitate conversation during the activity. This will help keep the discussion focused on plastic waste reduction strategies and the importance of minimizing plastic usage.

Activity:

- Bingo Instructions: Distribute Bingo cards to each participant and briefly go over how to mark off squares as statements are called out.
- Play the Game: Call out plastic waste facts, tips, or scenarios from your prepared list, one by one. Encourage participants to mark off the corresponding squares on their Bingo cards if they match what is called out. Keep the game lively and engaging.
- Facilitate Discussion: As participants mark off squares on their Bingo cards, encourage them to share their experiences or thoughts related to each statement or scenario. Guide





the discussion towards understanding the impact of plastic waste and brainstorming strategies to reduce it.

- Award Prizes (Optional): If you've prepared prizes, announce the winners who have successfully completed a Bingo. Reward them with the prizes that you've set aside.
- Reflection and Conclusion: Conclude the activity by reflecting on what was learned during the game. Summarize key insights about plastic waste and encourage participants to think about how they can apply what they've learned to reduce plastic waste in their daily lives.

Last Step: Quiz: Self-reflection (10 minutes)

- Reinforce learning with <u>a quiz on plastic waste</u> and sustainable consumption practices using Edpuzzle or a similar platform. (<u>https://edpuzzle.com/media/65fbb17895b16e5503647a20</u>)
- Provide immediate feedback and discuss the correct answers to reinforce learning outcomes.

ADDITIONAL INFORMATION AND READINGS

<u>The Ocean Cleanup</u>: The Ocean Cleanup is a nonprofit organization that develops advanced technologies to rid the world's oceans of plastic pollution. Their website provides updates on cleanup projects, research findings, and educational resources related to ocean plastic pollution.

<u>National Geographic - Plastic Pollution:</u> National Geographic features extensive coverage of plastic pollution issues worldwide. Their website includes articles, videos, interactive maps, and educational materials exploring the impacts of plastic waste on ecosystems and communities, as well as solutions to address the problem.

<u>World Wildlife Fund (WWF)</u> - Plastic Pollution: WWF's plastic pollution webpage offers insights into the environmental impacts of plastic waste and the organization's efforts to combat the problem. Visitors can find reports, articles, and initiatives aimed at reducing plastic pollution and promoting sustainable waste management practices

Turning the Tide on Plastic Pollution: 10 Innovative Technologies" - In this article, ten innovative technologies for combating plastic pollution are discussed, including ocean cleanup systems, bioplastics made from algae, and 3D printing using recycled plastic materials

VOCABULARY

Single-use plastics: Disposable plastic items intended for short-term use before being discarded, contributing to plastic pollution.

Microplastics: Tiny plastic particles less than 5 millimeters in size, often found in the environment as a result of plastic degradation.

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Pollution: The presence of harmful or toxic substances in the environment, including plastic pollution in oceans, rivers, and land.

Ocean plastic: Plastic waste that accumulates in marine environments, harming marine life and ecosystems.

Plastic recycling: The process of converting discarded plastic materials into new products, reducing the need for virgin plastic production.

Plastic pollution: The contamination of the environment with plastic waste, causing harm to wildlife, ecosystems, and human health.

Biodegradable plastics: Plastic materials capable of breaking down into natural substances under certain conditions, potentially reducing environmental impact.

Plastic packaging: Containers, wrappers, or other materials made of plastic used for packaging products, contributing to plastic waste.

Plastic bags: Lightweight, single-use bags made of plastic, often used for shopping and contributing to environmental pollution.

Plastic bottles: Containers made of plastic, commonly used for beverages and personal care products, contributing to plastic waste and pollution.

Marine debris: Human-made waste materials that enter marine environments, including plastics, posing threats to marine life and ecosystems.

Plastic-free: Refers to products, practices, or lifestyles that avoid or minimize the use of plastic materials to reduce environmental impact.





CASE STUDIES ON ENERGY SOBRIETY

Energy sobriety, often confused with energy efficiency or saving, is the practice of reducing energy consumption through conscious behavioral change, the use of innovative technologies and improved systems. It plays an important role in combating climate change, reducing carbon emissions and providing resources for sustainable energy use for future generations. There are many case studies around the world that show the successful implementation of energy sobriety strategies in different sectors. These case studies offer valuable contributions to individuals, communities and industries in achieving a more energy-conscious future.

As the world faces rising energy demands and pressures to protect the environment, the importance of energy sobriety should be well understood. By making better choices about how we consume energy at home, in schools, in transportation or in industry, we can significantly reduce the pressure on renewable resources and help achieve a cleaner, more sustainable, greener future.

There are numerous case studies from around the world that demonstrate the successful implementation of energy sobriety measures. These examples span a variety of sectors and provide valuable insight into how individuals, communities, businesses and policymakers are working together to achieve greater energy efficiency. Each case study suggests that achieving energy sobriety requires a multifaceted approach, including behavioral change, technology adoption and more.

The case studies provide a clear picture of how energy sobriety can be put into practice in a variety of sectors, from homes and schools to transportation and industry. Each case shows that achieving energy sobriety can only happen through a combination of positive behavioral change, technology uptake and policy support.

In homes, using gadgets such as smart meters and energy-efficient appliances supports individuals to make informed decisions. In educational settings, encouraging young people to take the initiative in energy sobriety initiatives supports a generation of environmentally conscious and aware individuals. In cities, developing sustainable living and transportation options significantly reduces energy consumption and promotes healthier living environments. Finally, energy management practices in industry contribute to significant reductions in energy use and emissions. Energy sobriety is not just about reducing consumption; it is about creating a sense of responsibility, sustainability and innovative perspective. By getting feedback from successful case studies, we can take confident steps towards an energy efficient and sustainable future.

By learning from case studies, we can achieve a more sustainable future. As individuals, we must make small behavioral changes in our daily habits. As communities, we can demand smarter energy. And as businesses, we can implement technologies that benefit both the bottom line and the planet, while also supporting energy conservation. Ultimately, energy sobriety supports the legacy of clean, smart, and sustainable energy for future generations.

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ENERGY SOBRIETY AT HOME

THEMES: ENERGY SOBRIETY AT HOME

OBJECTIVES

- To help youth understand how everyday actions impact energy consumption.
- To promote energy-saving habits and awareness among young people.
- To encourage practical steps that can be taken to reduce energy use in their homes.

DURATION AND PLANNING

- Interactive Video Presentation on "Phantom Power" (10 minutes)
- DIY Home Energy Audit Challenge (20 minutes)
- Creative Poster Design on Energy Saving Tips and Evaluation (60 minutes)

MATERIALS

- Projector
- Internet
- Worksheets
- Art supplies (markers, paper)
- Poster boards

RECOMMENDED METHOD

- Start with a video presentation explaining the concept of "phantom power" (standby energy consumption). This video helps make technical concepts accessible and engaging to a younger audience. Use scenarios like leaving everyday devices like phone chargers and TVs plugged in to illustrate how energy is being wasted unnecessarily.
- Implement a DIY Home Energy Audit activity where participants identify appliances using standby power via the website and calculate potential savings by unplugging them. This activity is hands-on and allows youth to apply what they've learned in a practical way. Encourage participants to share their findings in real time or on social media using a specific hashtag, creating a sense of community and competition.
- Hold a poster design event to have participants create eye-catching posters promoting energy saving tips. This method engages youth's creativity and allows peer-to-peer learning as they present and explain their posters. Other groups will provide feedback during the presentation.

ADDITIONAL INFORMATION AND READINGS

Participants who want to gain more in-depth information can read "Energy Conservation for Kids" by the U.S. Environmental Protection Agency (EPA) and "Energy Efficiency Tips for Young Adults" by Energy Star.

Participants who want to get information about 'Phantom Power' can watch the video in the link below: https://www.youtube.com/watch?v=axwcgycXImY&t=35s





GREEN YOUR SCHOOL OR CAMPUS

OBJECTIVES

- To inspire young people to take action to improve energy efficiency in their schools or campuses.
- To explore ways to make educational institutions more sustainable.
- To encourage youth-led initiatives and projects for energy sobriety.

DURATION AND PLANNING

- Energy Use in Schools (10 minutes)
- Energy Audit Scavenger Hunt Activity (Phantom Loads and Plug Loads Measuring Electricity Use Activity) (40 minutes)
- Youth-Led Campaign Planning (40 minutes)

MATERIALS

- Measuring Electricity Use checklist
- Papers
- Markers

RECOMMENDED METHOD

- Keep the presentation interactive by asking questions or integrating multimedia elements such as short videos to capture attention.
- The Energy Audit Treasure Hunt activity is a hands-on learning activity designed to get participants moving and thinking critically. Ask them to checklist common energy-wasting devices found around the school or campus and calculate the annual waste and value. This activity encourages discovery and teamwork while fostering a practical understanding of energy efficiency in familiar environments.
- In the Youth Led Campaign session, participants work in teams to develop a campaign to promote energy saving practices in their school or campus. The campaigns are social media post challenges and poster studies. Participants will break into groups to create social media posts and posters to promote energy saving practices. This method encourages collaboration, leadership, and advocacy skills, allowing youth to take responsibility for energy saving initiatives.

ADDITIONAL INFORMATION AND READINGS

Participants who want to get information about the events can read the following: "Guide to School Energy Savings" by the Alliance to Save Energy, "Student-Led Energy Audits" by Green Schools Alliance.

Participants can refer to page 12 for The Energy Audit Treasure Hunt activity. <u>https://homeenergychallenge.com/wp-</u> <u>content/uploads/2022/10/V3 Eversource HomeEnergyScavengerHunt 2.pdf</u> (page 12)

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Participants can view the video for the Energy Use in Schools event below: <u>https://www.youtube.com/watch?v=_H0yER_NNdg</u>

SUSTAINABLE URBAN LIVING AND TRANSPORTATION OBJECTIVES

- To raise awareness about the importance of sustainable urban planning and transportation.
- To promote understanding of the energy impact of different modes of transport.
- To encourage youth to adopt and advocate for sustainable mobility practices.

DURATION AND PLANNING

- Video showcasing on Sustainable Cities and Communities (10 minutes)
- Review: 10 of The Best Sustainable City Plans (40 minutes)
- Youth Dialogue: "Our Vision for a Green City" (40 minutes)

MATERIALS

- Projector
- Papers and markers

RECOMMENDED METHOD

- Start with a video showcasing various sustainable cities and energy reduction approaches around the world. Use a projector for face-to-face sessions. This approach visually engages participants and facilitates understanding with concrete examples.
- Introduce the website 'Review: Top 10 Sustainable City Plans'. Participants can learn interesting information about the subject by reviewing sustainable city plans and watching videos on the specified website. This method encourages participants to see multiple perspectives, developing empathy, critical thinking and problem-solving skills.
- Conclude with a Youth Dialogue session titled "Our Vision for a Green City," where participants share their ideas and visions for a more energy-efficient and sustainable urban environment. This open forum allows young people to express their thoughts, ask questions, and engage in a meaningful exchange of ideas.

ADDITIONAL INFORMATION AND READINGS

Those who want to get more in-depth information can read "Youth Guide to Urban Mobility" by the European Commission, "The Future of Urban Mobility" by the World Resources Institute (WRI).

Participants can use the link below for the Video presentation on Sustainable Cities and Communities: <u>https://www.youtube.com/watch?v=Awu3JJC3A0k</u>

Participants can review 'Review: 10 of The Best Sustainable City Plans' at the following link: https://www.sempergreen.com/en/about-us/news/10-of-the-best-sustainable-city-plans-in-the-world

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RENEWABLE ENERGY AND YOUTH INNOVATION

OBJECTIVES

- To introduce youth to renewable energy technologies and their role in energy sobriety.
- To encourage innovative thinking about energy solutions.
- To promote youth involvement in renewable energy projects.

DURATION AND PLANNING

- Introduction to Renewable Energy(10 minutes)
- Brainstorming Sessions: New Energy-Saving Technology (30 minutes)
- Debate Competition: Innovative Energy Solutions (50 minutes)

MATERIALS

- Projector
- Internet
- Rope
- Basic crafting materials

RECOMMENDED METHOD

- An interactive session will be held with questions and answers for the participants, using the website and video about 'Renewable Energy'.
- Idea Hanger Method: Participants are given post-it notes. A rope is hung in the environment. Participants who write the ideas that come to their minds on post-it notes hang them on the rope. The ideas are discussed one by one for one minute. Ideas that are applicable are grouped separately and scored by the participants.
- Hold a debate competition where groups present their innovative ideas for new energysaving technologies or community projects to leaders. Encourage creativity, clarity, and practical applicability in their presentations. This method makes learning competitive and fun while also developing public speaking, critical thinking, and entrepreneurial skills.

ADDITIONAL INFORMATION AND READINGS

Those who want to get more in-depth information can read "Renewable Energy: A Youth Guide" by the United Nations Environment Programme (UNEP), "Innovative Youth Energy Projects" by the International Renewable Energy Agency (IRENA).

Participants can benefit from the following website and video for Introduction to Renewable Energy:<u>https://www.edfenergy.com/energywise/renewable-energy-sources</u>

https://www.youtube.com/watch?v=1kUE0BZtTRc

Participants can use the link below for 'Debate Competition: Innovative Energy Solutions':

https://www.need.org//Files/curriculum/guides/GreatEnergyDebate.pdf

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SAMPLE TRAINING PROGRAM FOR YOUNG PEOPLE

The training activities will be implemented targeting the young people in the participating countries by the participants engaged in the training of trainers(ToT) activity. This activity is a complementary activity to try out the methods and increase the practical experiences of the trainers already engaged in the ToT and use these methods to increase the skills, knowledge and attitude (competences) of the young people.

For the implementation of the sample training program, we have provided the methods previous section though, you can change these methods according to your needs and the abilities of the target groups. Prior to the training activity, you must follow simple steps :

- **1) Tailor the content :** The participants might know or not know about what is energy sobriety, energy efficiency or anything about climate change. Thus, you have to adjust the content concerning to the needs, abilities and interests of your participants.
- **2) Prepare your materials** : Decide the program and check the material lists on the methods, if you have made any changes according to these changes prepare your materials from stationery to handouts.
- **3) Prepare your training room :** Before the implementation it is important to have the necessary material that might be needed in the room that you plan to use.

We have provided the methods above as outlines which you can use and we have tailored this as a sample training program to follow up with the following objectives :

- To increase the awareness of young people an energy sobriety
- To develop knowledge and attitudes concerning energy efficiency, renewable energy adaptation
- To initiate a behavioural change on consumption practices among young people on sustainable consumption practices
- To create a network of young people who are aware about the energy sobriety and can contribute to change in their communities

For the evaluation purposes, you can use the sample evaluation sheet that we have developed in the end of this handbook. However, you should adopt these evaluation methodologies according to your target groups such as, university students, high school students, young people who are NEETs etc.

IMPLEMENTATION

We have developed the following 3-day training as a guiding material for the activities. During this process, we expect you to follow these guidelines and you can change to fit the needs of your target groups.

The method outlines and the activities are explained in the previous section. Prior to start, please read the materials and make yourself familiarized with the topic and consider your abilities as well as trainer that which method would be more suitable to implement for you and for your knowledge level concerning to the activities.

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DAY 1

Hour	Day 1
10:00 - 11:30	Getting to Know Each Other / Expectations & Fears
11:30 - 12:00	Coffee Break
12:00 - 13:30	Energy Efficiency Method -1
13:30 - 15:00	Lunch
15:00 - 16:30	Energy Efficiency Method -2
16:30 - 17:00	Coffee Break
17:00 - 18:00	Making it Renewable
18:00 - 18:30	Evaluation of the day

DAY 2

Hour	Day 2
10:00 - 11:30	Energy Chants
11:30 - 12:00	Coffee Break
12:00 - 13:30	Sustainable Consumption Practices – 1
13:30 - 15:00	Lunch
15:00 - 16:30	Sustainable Consumption Practices – 2
16:30 - 17:00	Coffee Break
17:00 - 18:00	Energy Sobriety Method -1
18:00 - 18:30	Evaluation of the Day

DAY 3

Hour	Day 3
10:00 - 11:30	Energy Sobriety Method -2
11:30 - 12:00	Coffee Break
12:00 - 13:30	Case Studies on Energy Sobriety – 1
13:30 - 15:00	Lunch
15:00 - 16:30	Case Studies on Energy Sobriety – 2
16:30 - 17:00	Coffee Break
17:00 - 18:30	Final Evaluation

This program is just a suggestion from the consortium members to implement by working on each aspects and cross-cutting issues concerning to the energy sobriety. However, you might need to learn on one aspect more than the other such as "Energy Efficiency" than you can include 3 or 4 methods than 2 as we did it. That requires a holistic needs assessment of your target group and understanding their actual needs concerning to the theme and their interests. Hence, before starting to implement the training, we suggest you evaluate the program with trainer team and adopt to the needs of your target group.





TRAINING PROGRAMME FOR YOUTH WORKERS

The training of trainers' programme is developed to address the capacity building of the youth workers who will involve in the implementation of training activities for the young people. The aim of the training programme for youth workers to make them develop a common understanding and provide guidelines for the youth workers within involved organizations for implementing a pilot training activities in participating countries.

The training programme was consisted of 3-day programme introducing the training method that we plan to implement with young people and make the youth workers to practice these methods with each other.

DAY 1

Hour	Day 1
10:00 - 11:30	Getting to Know Each Other / Expectations & Fears
11:30 - 12:00	Coffee Break
12:00 - 13:30	Empowering Youth Workers to Promote Energy Efficiency
13:30 - 15:00	Lunch
15:00 - 16:30	Making it Renewable
16:30 - 17:00	Coffee Break
17:00 - 18:00	How To Reduce Carbon Emissions Through Eco-Friendly Choices in Food,
	Fashion And Plastic
18:00 - 18:30	Evaluation of the day

DAY 2

Hour	Day 2
10:00 - 11:30	Energy sobriety and energy efficiency in our environment
11:30 - 12:00	Coffee Break
12:00 - 13:30	Identifying benefits and motivation for behavioral changes
13:30 - 15:00	Lunch
15:00 - 16:30	From Understanding to Action: Energy Sobriety Solutions
16:30 - 17:00	Coffee Break
17:00 - 18:00	Case Study Development and Usage of Case Studies in Non-Formal Education
18:00 - 18:30	Evaluation of the Day

DAY 3

Hour	Day 3
10:00 - 11:30	
11:30 - 12:00	Trying out methods by participants
12:00 - 13:30	
13:30 - 15:00	Lunch
15:00 - 16:30	Planning a Training for Young People
16:30 - 17:00	Coffee Break
17:00 - 18:30	Final Evaluation

GETTING TO KNOW EACH OTHER

THEMES: TRAINING COMPONENT

OBJECTIVES

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- To get know each other
- To create group dynamic

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- To inform participants about the methodology (non-formal education and holistic approach)
- To take the expectations of participants
- To present the training schedule to participants

DURATION AND PLANNING

- 10 minutes : Introduction of Trainers
- 10 minutes : Presentation of Project and Questions and Answers
- 30 minutes : "Say me your nickname"
- 5 minutes : Introduction of Methodology
- 10 minutes : Gathering of expectations and fears
- 10 minutes : Learning Aims
- 5 minutes : Training Program

MATERIALS

- Colored A4 Papers
- Post-Its
- Flipchart
- Paper Tape
- Pens for each participant

RECOMMENDED METHOD

The Opening Session begins with the project coordinator's "Welcome" speech, after which the trainers introduce themselves. The entire group briefly say their name and what they are doing in local. The implementation of the overall project, the goals of the activity and the idea of project is explained by the training team. Subsequently, participants' questions are answered.

"Say me your nickname"

Participants form a circle. The trainer asks each participant to set a nickname that starts with the initials of his / her name. Clockwise, the participant will repeat the name and nickname of everyone who have told their name and nickname before that one. The activity is ends when the circle comes to first person.

Methodology

The non-formal education methodology, experiential learning and holistic approach is introduced. Afterwards, the general idea of the energy sobriety and the aims of the project is briefly explained to the participants.

"Gathering expectations and Fear"

The facilitator puts two separate flipcharts with headings (fear & expectations) and give participants two separate color post-its in order to get expectations and fears. They are to write in orange coloured papers that they expected from the training and red papers, what they have a fear about the training. The participants are requested the put the post-its in the flipcharts. The content written by participants to the flipcharts is read by trainers and summarized.

"Learning aims"

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The participants are asked to develop their concrete learning aims concerning to training is being implemented and their involvement. In the evaluation section, we will visit again these aims to understand the achievement of the participants.

After, the training program is introduced by trainer team. The short information about the activities during the program is given. If the participants have questions related to program, the trainers answers.

ADDITIONAL INFORMATION AND READINGS

- 4. Non-formal education in youth projects Council of Europe : <u>https://www.coe.int/en/web/european-youth-foundation/non-formal-education</u>
- 5. Experiential-learning Institute for Experiential Learning : <u>https://experientiallearninginstitute.org/what-is-experiential-learning/</u>
- 6. La Belle, T.J. Formal, nonformal and informal education: A holistic perspective on lifelong learning. Int Rev Educ 28, 159–175 (1982). <u>https://doi.org/10.1007/BF00598444</u>

Other activities related with "Getting to know each other" and "Building group dynamics" can be as well implemented according to target group.





EMPOWERING YOUTH WORKERS TO PROMOTE ENERGY EFFICIENCY

THEMES: ADVANCED CONCEPTS AND PRACTICAL APPLICATIONS OF ENERGY EFFICIENCY

OBJECTIVES

- Equip youth workers with a deeper understanding of energy efficiency and its broader implications.
- Develop youth workers' capacity to educate and inspire young people to make energy-efficient choices.
- Empower youth workers to integrate energy efficiency concepts into their programs and communities.
- Foster innovation and practical solutions for energy efficiency across sectors.

DURATION AND PLANNING

- Introduction to Advanced Energy Efficiency Concepts: 15 minutes
- Interactive Activity: Case Studies & Role-Playing Scenarios: 30 minutes
- Group Discussion and Reflection: 15 minutes
- Practical Application: Designing an Action Plan for Youth Work: 20 minutes
- Debriefing and Final Thoughts: 10 minutes

MATERIALS

- Projector, Internet Access
- Flipcharts, Markers
- Printed Case Studies on Energy Efficiency
- Energy Efficiency Toolkits (digital or printed)
- Laptops or tablets for research

RECOMMENDED METHOD

The session will begin with a brief introduction to advanced concepts of energy efficiency, in which the trainer will highlight the larger impact of energy efficiency on the economy, the environment and society. Participants will be introduced to more advanced concepts such as energy audits, building renovation and smart energy systems. Using a short slide presentation, the trainer highlights the key sectors of residential, commercial and transportation and how improvements in these areas can significantly reduce energy consumption. Case studies are briefly mentioned to prepare the participants for the upcoming activities and to base the discussion on real examples.

For the interactive activity, participants are divided into groups and each group receives a printed case study on different areas, e.g. reducing energy consumption in schools, improving energy efficiency in local businesses or improving public transportation. Each group analyses their case study and identifies possible solutions to increase energy efficiency in their scenario. After a 10-minute group discussion, they present their solutions in a role play, as if they were decision makers or local leaders presenting energy saving ideas to their community. The trainer encourages the use of the energy efficiency toolkits to ensure that the solutions are practical and well thought out.

After the role play, the trainer leads a group discussion focusing on the challenges and opportunities each team faced in their case study. Participants are asked to reflect on the feasibility of their proposed solutions and the financial and social barriers that might stand in the way of their implementation. The discussion encourages participants to think critically about how youth workers can motivate others to adopt energy efficient behaviours in their communities. Guiding questions such as "What were the key challenges in your scenario?" and "How can youth

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workers advocate for energy efficiency in their communities?" help structure the conversation and encourage thoughtful contributions.

After that, participants work on creating an action plan based on their case study. They outline a practical approach to promoting energy efficiency in their own youth work by identifying key objectives, target groups and specific activities such as organizing workshops or running educational campaigns. The action plans also include measurable outcomes, and the resources required to implement the projects. Each group presents its plan to the larger group and receives feedback from the other participants and the facilitator.

The session ends with a debriefing where participants reflect on how they will incorporate energy efficiency concepts into their daily work with young people. The facilitator asks participants to think about the long-term challenges they might face and the partnerships or resources they will need to succeed. The guiding questions "How will you continue to promote energy efficiency in your youth work?" and "What challenges do you anticipate and how will you overcome them?" help focus the conversation and encourage participants to think strategically about the future.

ADDITIONAL INFORMATION AND READINGS

Advance Energy Efficiency Presentation:

https://www.canva.com/design/DAGSOPpMVjg/GLsIYHbbyNCsVikyjkFTow/edit?utm_content=D AGSOPpMVjg&utm_campaign=designshare&utm_medium=link2&utm_source=sharebutton

Case Studies:

Poducing operatures in a school	Improving Efficiency in a Small Business
Scenario: A local public school has high energy costs,	Scenario:
especially in winter. The school has inefficient	A small local bakery is struggling with high utility bills
heating systems and old lighting systems. The goal is	due to inefficient kitchen equipment and poor
to identify energy saving measures to reduce the	ventilation systems. The bakery owner wants to
school's operating costs while maintaining comfort	reduce energy costs while maintaining high product
for students and staff.	quality and employee comfort.
	Goals:
Goals: Improve energy efficiency in heating and	Ungrade kitchen equinment to more energy efficient
lighting	models
inglituing.	mouels.
Implement low-cost or no-cost energy saving	improve ventilation to reduce heating/cooling costs.
strategies.	Identify ways to reduce waste heat in daily
Encourage energy saving behaviour among students	operations.
and staff.	Key Solutions:
Key solutions: Install energy efficient lighting (LEDs).	Replace old ovens with ENERGY STAR certified
Conduct a building energy audit.	equipment.
Implement better insulation of windows and doors.	Install better insulation and ventilation in the
Use smart thermostats to control heating.	kitchen.
	Use energy-efficient lighting systems.
	Train employees in energy efficient practices.
Energy efficiency in public transport	Energy Efficiency in Public Lighting
Scenario:	Scenario:
A local government wants to reduce the carbon	A city spends a large portion of its budget on
footprint of its public transport system. Buses and	streetlight maintenance. Most lights use old. energy-
trains use significant amounts of energy and the city	intensive technology, and the city council is
wants to investigate how to make public transport	considering switching to a more energy efficient
more energy efficient while encouraging residents to	system that will reduce energy costs and
uso it	maintenance needs
use it.	maintenance neeus.

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Objectives:	Objectives:
Identify energy efficient transport alternatives.	Reduce energy consumption and maintenance costs
Reduce overall energy consumption in public	of public lighting.
transport.	Implement a sustainable solution that requires
Increase ridership by promoting the benefits of	minimal maintenance.
energy efficient transport.	Improve the overall efficiency of the city's
Key solutions:	infrastructure.
Introduce electric buses or hybrids.	Key solutions:
Optimize routes for better energy efficiency.	Replace all streetlights with energy-efficient LED
Encourage cycling and walking by improving	lights.
infrastructure.	Introduce a smart lighting system that dims lights
	during off-peak times (late evening/early morning).
	Explore the possibility of solar-powered streetlights
	in certain areas to further reduce energy
	consumption.

Energy Efficiency Toolkit:

Energy Audit Checklist: A step-by-step guide to conducting an energy audit for a building (e.g. school, business).	Energy Audit Checklist: A step-by-step guide to conducting an energy audit for a building (e.g. school, business).
Energy Efficiency Tips: A list of cost-effective energy saving strategies for homes and businesses.	Energy Efficiency Tips: A list of cost-effective energy saving strategies for homes and businesses.

Recommended Video on Advanced Energy Efficiency Technologies:

https://www.youtube.com/watch?v=1zGoyGAz9NY





MAKING IT RENEWABLE

THEMES: RENEWABLE ENERGY ADOPTATION

OBJECTIVES

- To increase the understanding of the participants on renewable energy resources
- To create awareness about the usage of fossil fuels and its impact on the climate change
- To develop attitudes on the usage of different

DURATION AND PLANNING

- Fossil Fuel 101: 30 minutes
- Adopting our energy resource : 45 minutes
- Debriefing : 15 minutes

MATERIALS

- Internet
- Projector
- Flipcharts
- Handouts

RECOMMENDED METHOD

First, the trainer explains the participants the impact of the fossil fuels on the usage by showing the video (indicated in the Additional Readings section). Later, the trainer asks participants to divide into the four separate groups (groups of 5). During this process, the participants are asked to calculate, how much fossil fuel they use monthly as a small group by using the following instructions :

- How much fossil fuel I use for my vehicle?
- How much fossil fuel I use to heat my house?
- How much fossil fuel resource I use to cook?
- How many flight per year I use?
- Which fossil fuel resources I use? (Wood, Natural Gas, BioGas, Diesel etc.)

These questions can be extended depending on the group and they are guiding questions. In this process, they can use the find out the Co2 emissions of themselves as a group to see the differences between their consumption patterns and their Co2 emissions in their countries from their usage of car, the heating mechanisms in their house or usage of the flights. To do the My Climate Calculation Tool is introduced to the participants after developing their list of consumptions.

Later on, the participants are given to the handout of the renewable energy resources as a group. They are asked to change their consumption patterns by solely using the renewable energy resources handout with the possibilities within their countries.

After the participants change their consumption patterns and adopt the renewable energy resources to their daily life, they make presentation concerning the change if they have used the renewable energy resources in lieu of the fossil fuel resources. Later on, the participants calculate again according to that change their Co2 emissions and say the change.

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You can use the graphic above to provide participants with an idea about the shift between the resources⁴.

After the overall process of presentations and calculations, the each group make their presentations concerning to their groups energy consumption. For debriefing and evaluation, the following questions can be used.

- What happened during the change?
- What was the hardest part of choosing the energy resources?
- How did you feel about the overall process?
- Do you think it can be managable to change every fossil fuel resource to renewable resource?
- Did you realise your impact on the envorienment by using fossil fuels?

ADDITIONAL INFORMATION AND READINGS

You can provide the video related to "Fossil Fuels" by using the following video: <u>https://www.youtube.com/watch?v=zaXBVYr9Ij0</u>

We suggest you use the My Climate Calculation Tool for this purpose, there are several ways to calculate though, it is the most efficient and simple way to implement with the young people. You can reach the tool from here : <u>https://co2.myclimate.org/en/calculate_emissions</u>

Renewable Energy Resources Handout

Solar Energy is unlimited and usable even in cloudy weather, solar energy surpasses global energy consumption by 10,000 times. In addition to that, it can provide heat, cooling, lighting, electricity, and fuels through photovoltaic panels or concentrated solar power. Recent advancements have made solar panels affordable and long-lasting (around 30 years), made significant contributions to energy production in all over the world.

Wind Energy is using wind wind turbines on land or offshore, wind energy captures kinetic energy from moving air. Technological advancements have increased efficiency with taller turbines and larger rotors. The wind speeds vary by location though, the potential for the wind energy is higher with offshore wind powers more than inland wind power structures.

Geothermal Energy is derived from the Earth's internal heat, accessed via wells or other means. It uses hydrothermal reservoirs or enhanced geothermal systems to generate electricity. This technology is well-established and reliable, with over a century of successful operation. However, it cannot be used in every location.

Hydropower generates energy from water moving between elevations, hydropower can come from reservoirs or rivers. Reservoir hydropower has multiple uses beyond energy, such as irrigation and flood control. It's the largest renewable energy source in the electricity sector but is vulnerable to climate-induced changes and ecosystem impacts.

⁴ The images were taken from Teach Engineering (teachengineering.org). https://www.teachengineering.org/lessons/view/cub_environ_lesson09 Project Number : 2023-1- TR01- KA220- YOU- 000165777

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Ocean Energy uses the kinetic and thermal energy of seawater, ocean energy technologies are in early development stages. These include wave and tidal current devices. The potential for ocean energy far exceeds current human energy needs.

Bioenergy is produced from organic materials (biomass) like wood, manure, and crops, bioenergy is primarily used in rural areas for heating and cooking. Modern systems use dedicated crops and waste streams. While bioenergy emits fewer greenhouse gases than fossil fuels, its large-scale use can lead to environmental issues such as deforestation and land-use changes.

Let's change our energy choices from fossil fuels to renewable resources! In this activity, we ask you to :

- Choose energy resource viable to your country
- Check the possible resources that can be beneficial to reduce the fossil fuel consumption
- Revise what can you change and what you cannot change in your context
- Recalculate your carbon footprint after changing the resources

Before starting write down your current Carbon Footprint :

After changing the resources to renewable energy resources as much as possible, write down your Carbon Footprint :





"ENERGY SOBRIETY AND ENERGY EFFICIENCY IN OUR ENVIRONMENT"

OBJECTIVES

- To raise awareness and understanding
- to develop skills to apply the theory
- To raise pedagogical skills
- To raise critical thinking
- To promote sustainable habits

Here you should list the objectives

DURATION AND PLANNING

- 5 minutes : Workshop's Instruction
- 45 minutes : Waste and sober use of energy in our environment
- 30 minutes : Presentation of group results
- 10 minutes : Summing up

MATERIALS

- Material 1: Five different printed posters
- Material 2: 5 black, 5 blue and 5 green markers.
- Material 3: Flip chart

RECOMMENDED METHOD

Activity 1: Introduction of Trainers - The workshop moderator gives clear instructions to the participants. **Duration - 5 minutes.**

Activity 2: "Waste and sober use of energy in our environment"- Participants are divided into 5 groups. Each group receives a different small poster depicting one of the following environments: a house, a school, a company, a city street, or a rural area with a farm. Each poster also features an energy scale (similar to the energy efficiency labels on technical devices). The task for each group is to identify factors that lead to significant energy waste in their assigned environment (home, school, company, city, or village) and write these factors on the red fields of the energy scale (fields C and D). Then, through group discussion, they identify ways to reduce energy consumption in these environments. These reduction strategies should be divided into two categories and written on the poster: a) energy efficiency factors (on field B) and b) energy sobriety factors (field A). The groups should write down energy-wasting factors with a black marker, energy efficiency factors in green, and energy sobriety factors in blue. **Duration – 45 minutes.**

Activity 3: Presentation of group results - After completing the poster, each group displays it on a flip chart, and a group representative presents the results of their work to all participants. **Duration – 30 minutes.**

Activity 4: Summing up. The moderator invites participants to recapitulate key findings and draw conclusions from the results of the group work. Duration – 10 minutes.

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ADDITIONAL INFORMATION AND READINGS

The workshop moderator should encourage all participants to engage actively in the group work, allowing them to choose their preferred mode of participation—whether through discussion, sketching posters, presenting group work, or summarizing the results.

The space where the training takes place should be arranged so that each of the 5 groups has its own work space: a table and chairs around it.

In the attachment of the text there are also five posters in pdf, materials for this workshop. The image was taken from the internet (*Freepik*, 2024). Posters should be printed before training in A1 or A2 format.





"IDENTIFYING BENEFITS AND MOTIVATION FOR BEHAVIORAL CHANGES"

OBJECTIVES

- to improve professional competences in the field of energy sobriety
- to notice stereotypes in their opinion and to get rid of them
- to encourage group dynamics
- to increase interest in the topic

DURATION AND PLANNING

- 5 minutes: Introduction
- 45 minutes: Quiz
- 30 minutes: Discussion on the topic: "Why did we make mistakes?"
- 10 minutes: : Question Ball

MATERIALS

- video attachments
- paper and pencils for each participant
- colourful stickers
- a bigger inflatable ball
- flip chart
- technical equipment: laptop and projector

RECOMMENDED METHOD

Activity 1: Introduction - The moderator explains to the participants that the next activity is a quiz. **Duration:** 5 minutes.

Activity 2: Quiz - Participants are divided into groups (they can remain in the same groups as before) and compete as teams. The questions focus on statistical data related to the consumption of specific energy sources or raw materials. After the question is asked, the teams have 2 minutes to agree on their answer, write it down on paper and show it. Immediately after that, the trainer plays a video or ppt slide containing the correct answer. Points are awarded from 5 to 1, depending on how close each group's answers are to the official statistics. Quiz questions:

1. What is the daily consumption of electricity in our country? (Each country takes data from its environment.)

2. Which households consume more electricity: in our country or in (other) EU countries?

- 3. How many liters of water does one person need for all daily needs?
- 4. How much water does one household consume on average per day in our country?
- 5. What percentage of households in our country is connected to gas (ie consumes gas)?

6. Who are "prosumers"?

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7. What percentage of households in our country use solar energy?

8. Which state measures are you aware of that encourage less energy consumption?

The winning team—the one with the most points based on their closest answers—will receive a symbolic prize. **Duration:** 45 minutes.

Activity 3: Discussion on the topic: "Why did we make mistakes?" In this panel discussion, participants explain their answers to the quiz and identify common stereotypes about resources, energy and consumption levels. In the discussion, the moderator leads them to a conclusion about the necessity of energy sobriety in all countries. The participants then present their suggestions for motivating residents, especially young people, to change their lifestyle and turn to energy sobriety. **Duration:** 30 minutes.

Activity 4: Question Ball: Participants form a circle facing each other and receive a ball with questions written on it. The ball is thrown from one participant to another; whoever catches the ball chooses one of the questions and answers it. The questions are related to the topic, the information you find out in the quiz, as well as the personal habits and lifestyle choices of the participants in relation to natural resources. **Duration:** 10 minutes.

ADDITIONAL INFORMATION AND READINGS

Ball questions can be:

How do you get to your school or workplace?

Which country consumes more electricity per inhabitant: Denmark or Serbia?

How much water is enough per day for a person to meet all his needs?

How often do you use a bicycle as a means of transportation?

Etc.

The questions should correlate with the questions on the quiz as well as with the specific conditions of each partner country.

Some sources for obtaining information on energy consumption in different countries:

https://www.eea.europa.eu/en/analysis/indicators/share-of-energy-consumption-from

https://circulareconomy-serbia.com/sites/default/files/2023-05/wte%20in%20the%20EU%202020.pdf





SUSTAINABLE CONSUMPTION PRACTICES: "HOW TO REDUCE CARBON EMISSIONS THROUGH ECO-FRIENDLY CHOICES IN FOOD, FASHION AND PLASTIC "

OBJECTIVES

- Help participants recognize how choices they make affect one's carbon footprint and the environment.
- To gain the knowledge and skills needed to make informed, sustainable shopping decisions by learning how to reduce carbon emissions through eco-friendly product choices, local sourcing, energy-efficient electronics, and waste reduction.
- To raise pedagogical skills
- To raise critical thinking
- To promote sustainable habits

DURATION AND PLANNING

- 10 minutes : Introcuction to the topic
- 25 minutes : Eco-Choice Impact
- 25 minutes : Teaching Sustainability to Youth
- 5 minutes : Summing up

MATERIALS

- Internet
- Projector
- Paper and writing materials.
- Flipcharts

RECOMMENDED METHOD

STEP 1 – INTRODUCTION TO THE TOPIC 10 MINUTES

• Make a general introduction to the topic, but let participants share their perspective. Initiate the discussion by asking some guiding questions. This way you can explore participants' prior knowledge and awareness of the topic but also encourage critical thinking and reflection on their own eco behaviors and their role in countering food, plastic and fashion waste.

Use some of the following questions :

- 1. What can we do with that food that seems to be waste (e.g., ripped bananas can be good for making smoothies or ice creams, potatoes peels can become chips, etc.).
- 2. How often do you buy new clothes, and what factors influence your purchasing decisions?
- 3. Have you ever considered the lifespan of the clothes you own? Do you tend to keep them for a long time, or do you frequently replace them?
- 4. Do you know what fast fashion1 is? If so, can you describe how it differs from other types of fashion?
- 5. Are you familiar with the concept of "sustainable fashion2" or "ethical fashion3"? What do you think these terms mean?
- 6. Have you ever thought about the environmental impact of the fashion industry? What comes to mind when you hear the term "fashion waste"?





STEP 2 – Eco-Choice Impact

25 minutes

This interactive activity involves participants making quick choices related to food, fashion, and plastic use to see the immediate impact on carbon emissions. It fosters awareness and critical thinking about daily consumption habits.

- Briefly explain the concept of carbon footprints and the environmental impact of everyday choices.
- Highlight the areas of food, fashion, and plastic as significant contributors to carbon emissions.

Decision-Making Exercise

- Distribute worksheets listing common choices in food (e.g., eating meat vs. plant-based meals), fashion (fast fashion vs. sustainable brands), and plastic use (single-use vs. reusable items).
- Participants select one option in each category that they most commonly choose in their daily lives.

Reflection

- Ask participants to consider how alternative choices could reduce their carbon footprint.
- Encourage them to think about the feasibility of making these changes in their lives.

Group Discussion

- Form small groups of 3-4 participants.
- Discuss insights gained from the exercise.
- Share practical ways to adopt more sustainable habits in food, fashion, and plastic use.
- Highlight any barriers to making these changes and brainstorm solutions.

STEP 3 – Teaching Sustainability to Youth

25 minutes

Participants will develop mini-lessons or activity plans to educate youngsters about reducing carbon emissions through eco-friendly choices in food, fashion, and plastic use.

- Discuss the importance of youth education in promoting sustainable consumption.
- Emphasize the role of youth workers in shaping environmentally conscious behaviors.

Activity Planning

- Form Pairs or Small Groups (1 minute):
 - Participants pair up or form groups of three.
- Select a Focus Area (1 minute):
 - Each group chooses one category: food, fashion, or plastic.

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• Develop a Mini-Lesson or Activity (10 minutes):

- Groups design a short educational activity or lesson plan tailored for youngsters.
- o Incorporate interactive elements like games, discussions, or hands-on projects.
- Ensure the activity addresses how to reduce carbon emissions through ecofriendly choices.
- Sharing Ideas (6 minutes):
 - Each group presents a brief overview of their lesson or activity.
 - Highlight the key objectives and methods of engagement with youth.
- Conclusion (2 minutes):
 - Summarize the shared ideas.
 - Encourage participants to implement these activities in their work.

ADDITIONAL INFORMATION AND READINGS

To enhance this activity, it's important to provide participants with key background knowledge about how their daily choices impact carbon emissions, specifically in the areas of food, fashion, and plastic use by providing them all the material developed.

Tips for youthworkers

- Incorporate Local Context: Use local examples to make lessons more impactful.
- Encourage Critical Thinking: Pose questions and scenarios that require analysis.
- **Promote Action:** Design activities that lead to tangible environmental improvements.





FROM UNDERSTANDING TO ACTION: ENERGY SOBREITY SOLUTIONS

THEMES: ADVANCED CONCEPTS OF ENERGY SOBRIETY AND PRACTICAL APPLICATION

OBJECTIVES

- Provide a clear understanding of energy sobriety and its importance in reducing energy consumption.
- Equip youth workers with tools to inspire young people to be mindful of their energy use.
- Support participants in developing community programmes that integrate the principles of energy conservation.
- Explore practical solutions that prioritise behavioural change towards energy sufficiency.

DURATION AND PLANNING

- Introduction to Energy Sobriety: 10 minutes
- Interactive Case Studies: 20 minutes
- Reflection and Discussion on Barriers: 15 minutes
- Action Plan Workshop: 30 minutes
- Closing Reflections and Feedback: 15 minutes

MATERIALS

- Projector, Internet-Access
- Flipcharts, Markers
- Energy Sobriety Toolkits (digital or printed)
- Laptops or tablets for research

RECOMMENDED METHOD

Begin the session by setting the tone and explaining the purpose of this training to the participants. As the facilitator, remind them that they already have a solid understanding of energy sobriety from previous sessions. Emphasise that this training is hands-on and focuses on practical application.

Explain that participants will work through study cases in groups to identify challenges and develop solutions related to energy conservation. These activities are designed to help them think critically, collaborate and develop ideas that are realistic and relevant to their communities. Point out that there will also be a workshop where they will design their own campaigns or projects to promote energy neutrality.

When introducing the session, emphasise that the goal is to move from understanding the concept to meaningful implementation. Point out to participants that the exercises are designed to be simple and interactive to ensure that they leave the session with clear, actionable strategies that they can apply in their communities or programmes. Reassure them that their insights and creativity will be at the centre of this training.

Then divide the participants into small groups to work on real-life examples. Each group is given a case study to think about and solve. Here are the cases:

- Case 1: A school wants to reduce its energy consumption but has difficulties motivating pupils and staff.

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- Case 2: A community encounters resistance when it comes to favouring public transport over the car.
- Case 3: A neighbourhood wants to promote 'energy-free evenings' without losing community participation.

Ask each group to talk about the barriers in their scenario and suggest practical ideas that consider local cultures and habits. After about 15 minutes, ask each group to share their ideas with everyone else. Encourage creativity, but also make sure that the solutions are realistic.

Following the group work, have an open discussion about the common challenges people face in using less energy. Ask questions such as:

- Why do people find it difficult to reduce energy consumption?
- How can we change the belief that using more energy means success or convenience?
- How do social norms and influencing factors shape energy habits?

Make participants realise that habits, culture and convenience are often obstacles to energy saving.

Then move on to a practical activity where participants design a simple plan or campaign to promote energy sobriety in their communities or youth groups. Give examples to inspire ideas, such as hosting minimal energy consumption events, organising school competitions to reduce energy consumption or appointing community members as 'energy sobriety leaders. Encourage participants to think about what would work best in their local environment and make sure their ideas focus on positive behaviour change. Give them about 20 minutes to plan and then ask each group to present their ideas. Offer feedback to make the plans practical and achievable.

At the end of the session, ask participants to reflect on how they can further promote energy sobriety in their daily work. Encourage them to think of energy sobriety as an opportunity that empowers people, rather than a limitation. Discuss how they can promote this idea to their communities and what resources or partnerships might support their efforts. Help them walk away with clear next steps and the confidence to take action to promote responsible energy use.

ADDITIONAL INFORMATION AND READINGS

• Energy Sobriety Actioan Plan Template Example:

https://shorturl.at/CppRb





CASE STUDY DEVELOPMENT AND USAGE OF CASE STUDIES IN NON-FORMAL EDUCATION THEMES: RESIDENTIAL AND WORKPLACE ENERGY SOBRIETY

OBJECTIVES

- To provide participants with a basic understanding of energy usage in their daily lives, both at home and at work.
- To teach participants how to conduct a basic energy audit and identify areas where they can reduce energy usage.
- To encourage participants to actively engage with the material and find realistic energysaving measures they can adopt.
- To address barriers to adopting energy-efficient behaviors and explore practical solutions.

DURATION AND PLANNING

- Energy Consumption at Home and Work (10 minutes)
- Energy Audits and Practical Savings (40 minutes)
- Interactive Group Workshop: Small Actions, Big Results (40 minutes)

MATERIALS

- Handout
- Projector
- Internet

RECOMMENDED METHOD

Energy Consumption at Home and Work: Begins by introducing the concept of energy consumption and energy sobriety. Discusses how energy is consumed in homes and businesses (focus on heating, cooling, lighting, and electronics). Highlights the financial benefits of reducing energy bills and the positive environmental impact of reducing energy consumption. Energy Audits and Practical Savings: Participants are divided into groups. They discuss how to conduct an energy audit at home (e.g., check appliances, identify high-energy areas such as heating and cooling systems). Participants are given tips for auditing their office environment (e.g., reduce lighting energy use, manage standby power). Participants write down their findings on paper and present as a group.

Interactive Group Workshop: Small Actions, Big Results: Participants are divided into small discussion groups. Each group is given the task of identifying three to five small, easy-to-implement energy-saving actions for their home or workplace (mission impossible). Each group is asked to present their suggestions to the larger group. They are asked to discuss the cumulative impact of these small changes and how they contribute to overall energy savings. They are asked to prepare a poster on how they lead to significant environmental and financial gains.

ADDITIONAL INFORMATION AND READINGS

Those who want to get in-depth information can read I "Energy Saving Tips for Homeowners and Small Business Owners" by the U.S. They can read the Department of Energy, "Energy Efficiency in Offices and Households" by the International Energy Agency (IEA).Participants who want to learn about 'Energy Consumption at Home and Work' can use the link below:

- http://needtoknow.nas.edu/energy/energy-use/home-work/
- <u>https://aro.tech/insights/blog/uncover-energy-saving-opportunities-with-an-energy-audit/</u>

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THEMES: PUBLIC INFRASTRUCTURE AND SUSTAINABLE MOBILITY

OBJECTIVES

- To explore the role of public buildings, infrastructure, and urban planning in reducing energy consumption.
- To examine how sustainable mobility solutions can lead to energy sobriety at a community level.
- To promote the adoption of energy-efficient technologies and policies in public infrastructure and transportation networks.
- To encourage participants to engage with sustainable urban planning and community development.

DURATION AND PLANNING

- Energy Sobriety in Public Buildings and Infrastructure (20 minutes)
- Sustainable Mobility and Urban Planning (25 minutes)
- Planning an Energy-Efficient Neighborhood (45 minutes)

MATERIALS

- Maps
- Markers
- Papers
- Flipchart
- Internet
- Projector

RECOMMENDED METHOD

Expert-Led Presentation: Begin with an expert presentation on energy consumption in public buildings and transportation, using real-world examples of cities that have successfully integrated energy-efficient policies. Provide data showing the environmental and economic benefits of sustainable infrastructure and mobility solutions, especially relevant for public-sector employees or community leaders. Incorporate an interactive polling tool (via smartphones) where participants can answer questions about their own communities' energy infrastructure, engaging them early in the session.

Case Study Walkthrough: Present a detailed case study of a city or public building that adopted energy-efficient measures. For example, the retrofitting of a school or hospital with energy-saving lighting, improved insulation, and smart heating systems. Use before-and-after comparisons to show measurable energy savings, reduced costs, and improved public satisfaction. Follow up with group discussions on how similar methods could be applied to participants' local public buildings or infrastructure.

Scenario-Based Group Activity: Divide participants into teams and provide them with a "neighborhood planning" exercise. Each team receives a map of a hypothetical community that they will redesign with energy-efficient public transportation systems and sustainable building practices. Encourage teams to consider electric vehicle charging stations, expanded bike lanes, improved public transit options, and energy-efficient public buildings in their plans. Provide budgeting constraints so that participants learn to prioritize projects within limited resources, simulating real-world decision-making.

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Policy Simulation and Advocacy Training: Host a role-playing exercise where participants act as local government officials, community leaders, or environmental advocates, debating a proposal for energy-efficient urban infrastructure projects. Teach participants about policy frameworks that support energy sobriety, such as tax incentives for green buildings, subsidies for public transport improvements, or local ordinances promoting energy-efficient retrofits. Encourage participants to practice lobbying or presenting their case to a simulated town hall or city council meeting.

Field Observation and Feedback Session: If possible, include a guided field visit to a local public building or transportation hub that has successfully implemented energy-efficient measures (e.g., a government office with solar panels, an eco-friendly school). After the field visit, hold a feedback session where participants share observations and ideas on how similar strategies can be applied in their own communities.

ADDITIONAL INFORMATION AND READINGS

Participants who want to learn about 'Energy Consumption at Home and Work' can use the readings below:

"Energy Efficiency in Public Buildings and Urban Transportation" by the European Commission:

This document provides an overview of policies and best practices that promote energy efficiency in public infrastructure. It explores energy-saving measures in public buildings and the integration of sustainable urban transportation solutions.

"Sustainable Urban Mobility Plans" by the International Energy Agency (IEA):

This resource outlines key elements of sustainable urban mobility planning. It highlights how cities can create and implement mobility plans that reduce emissions, improve air quality, and make urban transportation systems more efficient and accessible.





EVALUATION

OBJECTIVES

- To evaluate the overall programme
- To receive feedback about the content
- To develop follow-up plans with the participants

DURATION AND PLANNING

- 20 minutes : Verbal Evaluation
- 10 minutes : Online Evaluation
- 30 minutes : Follow-up plans

RECOMMENDED METHOD

After finishing the overall process, we want to understand the overall experience of the participants as this workshop schedule and the idea of the workshop is solely practical to increase their skills on energy sobriety to be able to promote the energy sobriety in their surroundings.

Prior to the finalisation, the facilitator asks the everyone's opinion about the overall process randomly.

Later on, participants are asked to evaluate the training program verbally. Trainer places three chairs in the middle of the training room. On the chairs, the flipchart papers drawn following shapes is put;

- **Trash:** Things you never want to remember
- **Suitcase:** Things you want to use in the future
- **Drawer:** Things to leave here for a while and then use later

According to their educational achievements, participants are asked to make their own assessments in line with each chair.

After the assessments are finished, the participants are provided with the online evaluation form to fill-out which is developed as an example in Annex-A : Evaluation Form Example for Training for Young People.

Follow-up plans

In the end of the training, the participants develop a small project idea as a measure to practice their knowledge by implementing 5W1H Method by answering *"what, who, when, where, why, and how"* questions. After the presentation of the follow-up plans as projects or campaigns or their initatives, the training activity is completed.

ADDITIONAL INFORMATION AND READINGS

Any other evaluation method can be used to implement the evaluation methodology. Though, it is important to emphasize that, the evaluation methodologies might be changed and should be adopted to the target group according to their needs and abilities.

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EVALUATION METHODOLOGY FOR TRAINING ACTIVITIES WITH YOUNG PEOPLE AND YOUTH WORKERS

The main purpose of the monitoring and evaluation process were to asses the effectiveness of Sobriety4You project in terms of its aims and objectives under WP3 : Training Development. The evaluation process is developed to provide relevant information to improve the follow-up processes of the project as well as to serve as a guide to the other organizations and give information about the lessons learnt, the challenges and the obstacles faced during the implementation of training activities with young people and youth workers. During the monitoring and evaluation, both quantitative and qualitative research methods were used and evaluation forms for each training program, qualitative and quantitative instruments can be found in the related activities' evaluation sections as offline forms.

The main objective of the project is to take action on environmental impact sobriety through a youth training program, a collection of technical methods and good practices and an online platform with rich examples at destination of young through the help of youth workers as mentors. For reaching out this aim, the project internalises several work packages, under Work Package 3 (Curriculum & modules about environmental impact sobriety), the following objectives were set out :

- To empower the young people and the professionals working in the youth field along with other groups such as disadvantaged youngster from rural areas, or low skilled youngsters- with the necessary skills to face upcoming challenges
- To provide young people with all the basic skills and transversal competences making them responsive to energy saving and ecological challenges

Therefore, to reach these objectives 5 main activities planned to be implemented (5 national workshops and 1 training of trainers activity) with the involvement of 85 people from 5 different countries (Turkey, Spain, Austria, Greece and Serbia). Here threin, the evaluation methodology is laid out for these activities.

This monitoring and evaluation strategy is developed to understand that the above mentioned activities contributed to the general aim and helped young people and youth workers to develop attitudes, skills and knowledge i.e. competences during the implementation of the activities concerning to the energy sobriety. With the planning process of this evaluation strategy, we planned to answer the following questions in the end of the project :

- Did Training of Trainers activity contributed to the professional development of youth workers?
- Did local experimentations i.e. workshops contributed to the awareness raising of young people?
- Did methods developed contributed to the knowledge share and increasing the awareness raising of young people?
- What was the overall satisfaction of the participants of each activity?

The development of the monitoring and evaluation strategy was done with the involvement of the staff of the partner organizations and the evaluation forms are developed in one stage rather than pre- and post-form stages. The reasoning behind this way of development of the strategy has been that the participants would not over-evaluate themselves prior to participating in the activity as well as gathering the results that are unrealistic.





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This issue is called as response-bias in social science. Response bias *"is a general term for a wide range of tendencies for participants to respond inaccurately or falsely to questions. These biases are prevalent in research involving participant self-report, such as structured interviews or surveys. Response biases can have a large impact on the validity of questionnaires or surveys"*. Therefore, to overcome this issue, we have internalised the following monitoring and evaluation strategy rather than the exhibition due to huge number of viewers and not every viewers possibility to fill out a longer survey as well as willingness.

Therefore, the evaluation process is done one-stage, at the end of the training/workshop :

- **Before the training/workshop** : by asking participants to evaluate themselves after the training concerning to their prior knowledge before participation to activity.
- *After the training/workshop :* by asking participants to evaluate themselves after the training concerning to their current knowledge/skill-set/attitudes.

As we have planned to use the paper format evaluations for the activities, for the national events, the evaluation sheet (Annex -2) is translated to country languages to develop a uniform report of the training activities that the methods and curriculum developed is tried out.

Methodology and Tools

While developing monitoring and evaluation methods and tools, it was believed that the practices carried out for this purpose should be positioned as a part of the training program process, not as an end-of-project study. In line with this belief, methods and tools were developed within the knowledge of the project and training teams, in parallel with the training program development process, before the project implementation phase began.

Overall process of the evaluation strategy is developed in four stages due to the nature of the project. The scheme of the monitoring and evaluation strategy and development of the plan can be seen below.

The above methodology will help us as consortium to follow-up the outcomes of every stage and to tackle with the challenges and obstacles of the possible activities under WP3 and WP4 (training of trainers activity and national workshops). In that way, we as partners will be able to follow-up each other's work through the national reports as well as document every step to have a full fetched evaluation process.

The tools identified for the implementation of the monitoring and evaluation strategies are :



- Application forms to gather the expectations

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- Post-Test forms to evaluate the overall satisfaction and change upon the participants
- Quantitative indicators to understand the achievement of the activity
- Daily Evaluations to adjust the content to increase the participants' needs
- Verbal Evaluation to make participants' discuss and provide direct feedback not only to the team but to the participants' as well
- Partner Evaluations to evaluate to overall consortium
- Quantitative Indicators for overall project to understand the achievement of the project
- Lessons' Learnt are to be a guiding principle for the partners for next projects
- Revision of the methods developed and providing guiding material for the development of e-learning modules

These tools are going to be used in the overall implementation of the project to provide a detailed evaluation of each activity and the understanding of the overall process of the project.





ANNEX – 1 : TRAINING OF TRAINERS EVALUATION SHEET

Pre-Evaluation Form

This form should be used to evaluate the educational process of the training of trainersactivity. As youth workers your opinions matters to us high manner. This form is designed to understand the understand the extent to which the goals of the training are achieved. Your contributions will help us to improve training as well as the overall implementation of our project. Thank you in advance for your since answers.

Age: Gender: Form Number:

- Please rate the following statements from 1 to 10 and write your score in the box next to the item.

1. I do not know/can't do /do not agree.....10.I know fully/can do fully/agree fully

		Α
1	I have clear understanding of "energy sobriety means".	
2	I can implement trainings for young people in my country.	
3	I have an idea how to reduce my energy consumption.	
4	I know what are the sustainable consumption practices.	
5	I know about how to implement training activity with young people.	
6	I can develop training activity for young people on energy efficiency.	
7	I can promote the energy sobriety in my community.	
8	I can create awareness on the impacts of energy consumption and practices in my community.	
9	I can provide guidance to the young people about the energy consumption and sobriety.	
10	I can promote sustainable consumption practices through case studies among young people.	

Q1. What are your expectations and learning aims from this training?





POST-EVALUATION FORM

Now, we come to end of the training, though our journey is just started. Please remember the number that you gave the form in the first day and put the same number in the form number section. It is important to evaluate the differences in a coherent manner. Secondly, while giving numbers to the each section, B Column means, you should evaluate yourself prior to the training and C column means, you should evaluate yourself after this training.

Age: Gender: Form Number:

- Please rate the following statements from 1 to 10 and write your score in the box next to the item.

1. I do not know/can't do /do not agree.....10. I know fully/can do fully/agree fully

		В	С
1	I have clear understanding of "energy sobriety means".		
2	I can implement trainings for young people in my country.		
3	I have an idea how to reduce my energy consumption.		
4	I know what are the sustainable consumption practices.		
5	I know about how to implement training activity with young people.		
6	I can develop training activity for young people on energy efficiency.		
7	I can promote the energy sobriety in my community.		
8	I can create awareness on the impacts of energy consumption and practices in my community.		
9	I can provide guidance to the young people about the energy consumption and sobriety.		
10	I can promote sustainable consumption practices through case studies among young people.		

Q1. Was there anything that you find missing in the training? What if we do or what happens it would be good?

Q2. Which was the most valuable session for you? Is there anything that you can say I did not know, but I learnt here?

Q3. How do you plan to deal with the conflicts and the issues that might arise during the training activity?

Q4. Were you able to achieve your expectations and reach your learning aims? If yes, please explain. If not, Why?

The following questions will be based on 10 Likert Scale.

Q5. What is your satisfaction degree from the content of training activity?

Q6. What is your satisfaction degree from the conduct of the trainers?

Q7. What is your satisfaction degree on the logistical arrangements of the training activity?

Q8. Did you feel comfortable with the group?

Q9. Do you think you have developed professionally and personally during the training?

Q.12. Please use this place in case you did not find a space as well want to say something further.

Thanks for your interest and patience.

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ANNEX -2 : EVALUATION SHEET FOR NATIONAL WORKSHOPS

The below feedback form is subject to change according to the needs of participants and developed generally to take quantitative and qualitative information to help the participants during the implementation of their local workshops. This form can be developed as online or offline form but, the age and gender-aggregated data will be requested from participants at any circumstance.

Feedback Form			
Gender :	Age :		
		Yes	No
Do you find the activity beneficial for the com	Do you find the activity beneficial for the community?		
Do you think the activity is implemented in a better way?			
Do you consider this activity successful?			
Would you recommend the activity to the others?			
Please rate the following statements from 1-5 (1 is not satisfied – 5 fully satisfied)			
Accessibility of the Location			
Content of the Activity			
Quality of the Activity			
Please leave a comment about your experience of the activity.			
If you were in our position, what would you change?			





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