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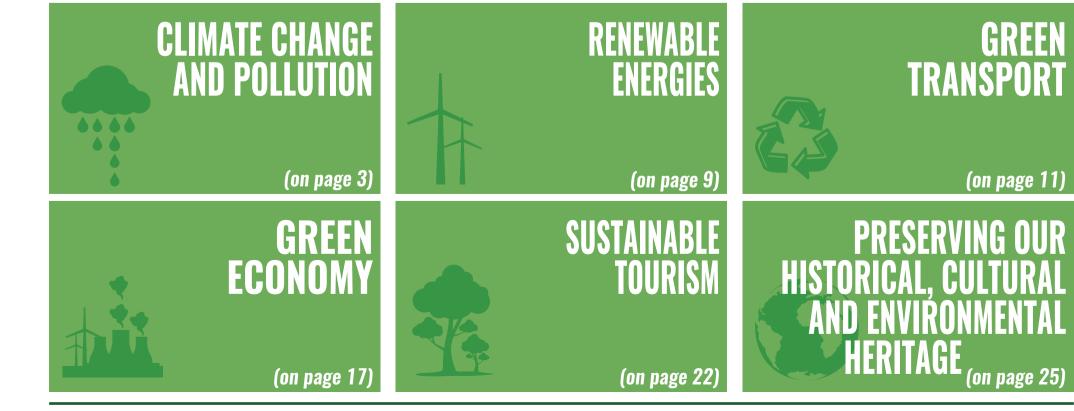


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# YOUTH FOR SUSTAINABILIT





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# POLLUTION AND CLIMATE CHANGE

THE FUTURE IS IN OUR HANDS

#### BACK TO EARTH - BACK TO LIFE

# Made by Alessandro D'errico Federico Mollura Antonio Laterza Gabriele Vozza IISS Augusto Righi - Taranto

Environmental protection production processes not only protect the environment by limiting or eliminating negative impacts outside the industry, but also have no negative impact on the environment or the surrounding ecosystem, and can reduce or eliminate harmful factors. Divided into several phases, including Industrial pollution: industry discharges large amounts of pollutants every day, causing damage to aquatic ecosystems. The chemical industry that produces nitric acid, carbonated water, phosphoric acid, ammonia, sulfuric acid and hydrochloric acid is the main factor causing water pollution. In addition, residues released from industries such as paper mills, sawmills, and dairy plants can promote the growth of mold and bacteria. Together, these industries cause the death of many organisms that receive these emissions and the hot water used in the production cycle.Next we have Military Pollution

caused by the release into the environment of materials used in military activities.

Then we have Urban Pollution: it refers to the water obtained from the excrement of houses, offices and other buildings, if it is not purified it affects water pollution. It was the historic industrial revolution that brought about the beginning of an admirable process, but it did not end: perhaps urbanization was the main reason for the excessive increase in pollution of all kinds. So far, in fact, in the large megacities formed by this process, there is no adequate system of waste disposal, so it has generated a pile of various waste. And groundwater pollutants. Marine pollution: all water and its pollutants flow into the ocean. Agricultural pollution: results from the extensive use of chemical fertilizers and pesticides and also results from the spread of farm wastewater. These substances can reach groundwater and underground rivers by washing away the soil. Natural pollution: is a source of pollution caused by weather and seasonal events, floods, landslides, and disasters. Hydrocarbon pollution: this is mainly caused by oil spills from damaged or destroyed tankers or by the discharge of water used to clean the tank.





#### **SEA BOTTOM - THE SEA POLLUTION**

Pollution in the ocean comes from a variety of sources, such as agricultural fertilizers and pesticides as well as marine litter. Marine litter is human-created waste that reaches coastal or marine environments. A new study examined global plastics emissions from the world's rivers into the ocean. The research estimated 1.15-2,41 million tons of plastic enters the ocean per year. But any amount of plastic in the ocean is too much. Fortunately, we know enough about marine litter to act now.

# <<How can we prevent ocean pollution due to plastics?>>

How can we prevent ocean pollution due to plastics?

We need to start where the problem starts. According to a report



published by the Ocean Conservancy, we need to improve the systems that collect, sort and treat waste components. Current composting, recycling and recovery programs help prevent plastics from reaching the oceans, but there is much need for improvement and innovation in waste management.

#### STREET GARBAGE- RECYCLING, AN HEALTHY ACTIVITY



Recycling

What is recycling? Why is it important to all of us?

Definition

To recycle: to treat or process used materials or waste so we can use these materials again. This stops us from wasting useful materials

Recycling is important because it:

- reduces the number of fresh raw materials we use;
- reduces the amount of energy we use;
- reduces air pollution It reduces water pollution;
- lowers the amount of greenhouse gases.

#### OZONE LAYER AND ITS DEPLETION

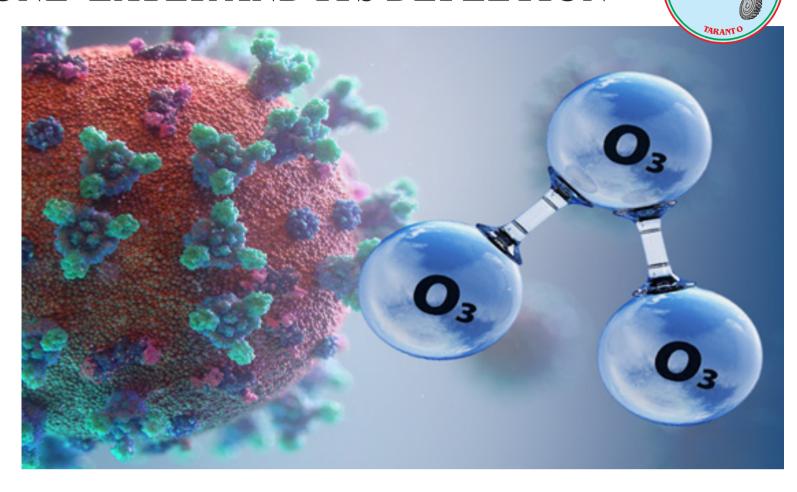
# Made by Giulia Marinelli, Gabriele Vozza IISS Augusto Righi Taranto.

Ozone is a gas, whose molecules are formed by three oxygen atoms and is extremely reactive; It is however an essential gas capable of absorbing ultraviolet light

The ozone layer in the stratosphere protects the Earth from harmful ultraviolet rays from the Sun.

The ozone layer filters out the dangerous ultraviolet radiation contained in sunlight before it reaches the Earth's surface causing damage to humans and other life forms.

When talking about the ozone hole we mean the temporary reduction of the ozone layer (in the stratosphere) that occurs cyclically during the spring in the polar regions.



# UV<sub>B</sub> 20-30km UV<sub>A</sub> O<sub>3</sub>

### THE CAUSES OF THE OZONE HOLE

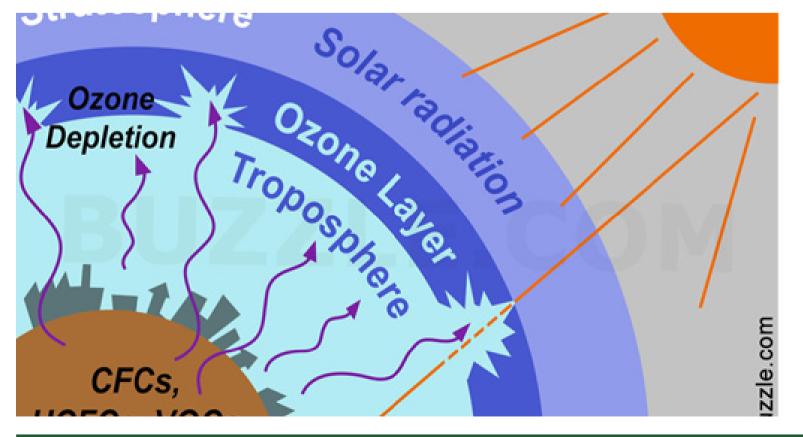
Most scholars and scientists argue that the depletion of the ozone hole is mainly caused by chlorofluorocarbons (or Cfcs), namely those chlorine-compound gases, Fluorine and carbon are mainly used in spray cans in cooling circuits of refrigerators and air conditioners and as foaming agents for the manufacture of materials such as expanded polystyrene. Once they enter the stratosphere, they break by the action of ultraviolet rays with chlorine release; this element, in turn, breaks the ozone molecules and binds to atomic oxygen, thus preventing the formation of new ozone. And this is exactly how UV rays(ultraviolet) arrive undisturbed on the Earth's surface.

The ozone hole represents a serious danger to the life of the planet as it causes serious damages to the man (eye disorders, skin cancer); to the invertebrates (destruction of the tissues, death); to the plants (reduction of the photosynthetic activity and of the accretion).

#### WHAT HAS BEEN DONE SO FAR?

This phenomenon of thinning the ozone layer was noticed starting in 1981 when, as people began to think about the safety measures to be adopted, companies continued to claim that the compounds were perfectly safe. But after demonstrating that the trigger for the phenomenon was Freon, in 1987 the International Treaty called the Montreal Protocol officially banned the use of Freon worldwide. Since them other protocols have been issued yet the actions are not so relevant

The remedies to combat the ozone hole phenomenon are, apparently, simple, the technologies already exist and they would be enough to be applied, but economic reasons delay the application of international standards for the banning of Cfcs. It's time to understand that our planet Earth is the only home we have and our duty is to make it a safe shelter for the whole mankind, now and in the future.



#### CLIMATE CHANGE IN THE NETHERLANDS

# Made by Fortes Lyceum Gorinchem the Netherlands

In the Netherlands, global warming does not seem to have much effect yet. Yet we are creepingly breaking heat record after heat record and our dikes are under increasing pressure. How is it exactly? In this article I list the national consequences of climate change. Annoying spoiler: Unfortunately, the climate crisis is not far-from-our-bed show.

Climate change in the Netherlands can have dire consequences. The Netherlands is heating up

The temperature in the Netherlands has been rising in recent decades. On the news you hear one national heat record falling after another. In daily life you may not notice much of a degree more or less. Only when you count how many winters you no longer spend on the ice - and then not for a day, but for a longer period of time - then it suddenly dawns on you. The other way around too: how often did you experience a heat wave in the past? That is different now. In the future we will have to deal with extreme weather more often. Count on drought, hailstorms, storms and... floods.

Floods? This is due to the rising sea level

Global warming is causing ice caps to melt. That means: more water and warmer water. Because hot water expands and requires more space, the sea water rises higher and higher. Exciting, because large parts of the Netherlands are already below sea level. Of course we have dikes and delta works to protect us from flooding, but the water is getting closer and closer.

# <<Does the sea level rise 40 cm, 1 meter or 2?>>

Does the sea level rise 40 cm, 1 meter or 2?

How much the sea level rises depends on how much the temperature is rising. Our CO2 emissions determine by how many degrees the earth will warm up. So the





more we put out, the higher the water will be. If we "limit" global warming to 2 degrees, the KNMI assumes sea level rise of 40 cm in 2100. But it is also possible that the water will rise 1 meter just like that. Or 2. Our dikes are absolutely not resistant to this. We then have to take extreme measures. Measures that are larger, more expensive and more radical than the delta works. We may have to give up large parts of our beautiful coastal area. And this is only in the scenario of 2 degrees of warming in 2100. At the moment we are heading for 3 degrees of warming... I think it's a scary idea.

What is climate change doing to the rivers?

The sea isn't the only water to

fear, of course. We must also keep a close eye on our rivers. 70% of the Dutch live in areas prone to flooding. In the coming years it will rain more and more heavily, which increases the chance that rivers overflow their banks. That can lead to flooding.

Not all water is rising: drinking water shortage is also a consequence

Climate change not only causes rising water, also water shortages. This is because in many areas less rain falls and the heat causes the groundwater to evaporate earlier. The heat records go hand in hand with drought records. We have to be economical with our drinking water because of extra drought and other rainfall patterns. Farmers must count on being able to pump less water to spray crops in the future, causing more plants to die and crop failures. More and more farmers will opt for drought resistant crops.

Heat waves? Heat stress

More heat waves in the Netherlands also cause more heat stress. You may recognize that.

In long periods of heat you sleep worse and you unnoticed drink too little. Especially in the city, where heat lingers, it is sometimes difficult to find a place to cool down. Some meteorologists say that the climate

**Heat waves?** 

**Heat stress** 

of the South of France awaits us. The idea of Les Doux Pays-Bas may sound appealing, but our poorly insulated homes are not built for that heat. Just as the South of France, in turn, is not prepared for the desert climate that the region may face.

### THE SECURITY RISKS OF CLIMATE CHANGE

In short, we have to count on extreme and fickle weather. And that in turn creates all kinds of risks. For example, trees and masts blowing over cause dangerous situations for humans and animals. We also run a lot of risk financially. A hailstorm can destroy an entire crop in one fell swoop or cause major damage to areas with many greenhouses. Extreme rain overflows the sewer.

And storm damage stops traffic. Insurers are already seeing the consequences of the extreme weather

caused by the climate crisis. After an extreme hailstorm, they already received ten times as many damage reports as a normal day, worth about 600 million euros in total.



End of story for the Netherlands?

As you can read, the consequences of climate change are not only noticeable in Australia and the Arctic. In the

Netherlands, too, we increasingly have to deal with extreme weather.

Thanks to global warming, it has been unsuccessful in the Netherlands

to hold the Elfstedentocht for years. The last one was in 1997 and it doesn't look like it will be possible any time soon ... The Elfstedentocht is already miles behind us.

We break heat record after heat record and report damage due to weather conditions more often than ever. We also have to take increasingly serious account of floods and other miseries. Although a number of consequences are irreversible, we

still have a finger in the pie. Or better: in the dike. We determine for ourselves how big the consequences will be. This is therefore not the end of story for the Netherlands. See it more as a turning point, where we force a major change in our society. We do not only solve the climate crisis with new techniques, but with a new mindset.

#### POLLUTION AND CLIMATE CHANGE

Made by Júlia González, Ivan Gallardo, Matteo Agüero, Elena Navarro and Magali Sautier **Institut Andreu Nin El Vendrell** 

**End of story for** 

the Netherlands?

# Pollution is the introduction of harmful substances or products into the environment that cause climate change.

What are they?

Pollution is the introduction of harmful substances or products into the environment that cause climate change.

Climate change is a long-term alternation in the average weather patterns that have come to define Earth's local, regional and global atmospheric conditions.

#### **POLLUTION IN SPAIN**

The two worst cities in Spain for the climate change are obviously Madrid and Barcelona. Some of the solutions that these cities are taking are: reducing the numbers of cars,going by bike or electric scooter, and the ones that contaminate more can't go there.

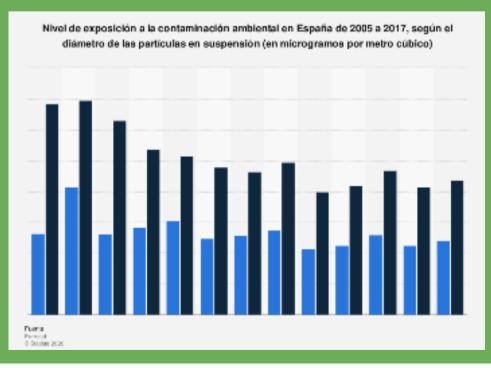
#### **ENVIRONMENTAL ISSUES IN CATALONIA**

Air pollution is one of the main environmental problems. The metropolitan area of Barcelona (AMB), the area with the highest population density and the largest number of inhabitants in Catalonia, is the area where the environmental problems derived from pollution are greatest. This has meant that in long-term anticyclonic episodes, especially in winter, the Generalitat has decreed measures to reduce speed on access roads to reduce pollution.

#### **SOLUTIONS**

- Renewable energy
- Recycle
- Use public transport





#### POLLUTION AND CLIMATE CHANGE

# POLLUTION IS THE INTRODUCTION OF CONTAMINANTS INTO THE NATURAL ENVIRONMENT THAT CAUSE ADVERSE CHANGE



# Made by Tudor Allegra Şerban Ariana Bertea Anastasia Scoala gimnaziala "Miron Costin" - Bacau

Human activities from pollution to overpopulation are driving up the earth's temperature and fundamentally changing the world around us. The main cause is a phenomenonknown as the greenhouse effect. The more greenhouse gases in the atmosphere, the more heat gets trapped strengthening the greenhouse effect and increasing the earth's temperature.

Climate change has consequences for our oceans, our weather, our food sources and our health. Warmer temperatures also make the weather more extreme. The most relevant possible impact of climate change in Romania are: modification of vegetation periods, displacement of ecosystems, prolonged droughts, floods. Sectors potentially affected

include agriculture ,transports, energy supply, water management, health and households.

In accordance with the World Health Organization's guidelines, the air quality in Romania is considered moderately unsafe.

### ENVIRONMENTAL ISSUES IN ROMANIA

Air pollution and water pollution caused by industry are serious

environmental problems in Romania.

The country's factories, chemical plants and electric power plants depend heavily on burning fossil

fuels, a process

that emits high levels of carbon dioxide and sulfur dioxide – a key component of acid rain.

Romania has already started investing in clean energy, such as solar, wind and hydro energy sources. Also, several projects on using geothermal energy have already been implemented in the country.

#### **CLIMATE CHANGE**

Romania suffers great consequences of climate change in a form of tornadoes, floods and desertification. The country has had records of occasional tornadoes since the late 19th century but in the last few years a number of tornado-force winds beat all the previous records, with 9 tornadoes in less than a year,



during 2005.

Floods in Romania also became frequent and abundant, taking many lives, affecting over 1500 settlements, and causing thousands of evacuations. Yet another serious effect of changes in a global climate regime is the drought that has been predicted to turn the Romanian region Dobrogea into a desert, within the next 100 years.

The most beautiful landscape to admire is an unpolluted place. You can see its beauty and have a relaxing time!

# TARANTO POLLUTION



Made by Alessandro D'errico, Giulia Marinelli, Antonio Laterza, Gabriele Vozza

#### IISS Augusto Righi - Taranto

In Taranto the problem of pollution has always been present, the main cause was ILVA. It was founded in 1961 and it's the bigger industrial steel plant in Europe.

In the last decades, it has caused many deaths due to its emissions of toxic gases like carbon dioxide (CO2) and chemical agents.

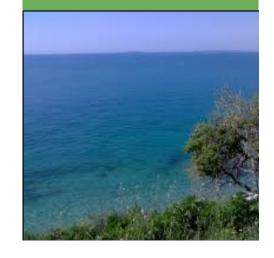
These gases cause cancer, tumor and illness, raising the death rate of the population.

Since last year the pollution due to these factors has increased by 128%.

Instead, chemical agents also produced by ENI and the traffic pollute the water and the soil. These chemical agents pollute the Ional Sea that is one of the most beautiful seas in the world.

Water and soil pollution is also due to the petroleum because of the cargo ships having accidents and releasing oil into the water.

For these reasons a mandate for the temporary closure of ILVA has been issued to protect the environment and we have to use more public transport or walking.





#### **POLLUTION IN ROMANIA**

# Pollution and climate change

POLLUTION IS THE INTRODUCTION OF CONTAMINANTS INTO THE NATURAL ENVIRONMENT THAT CAUSE ADVERSE CHANGE







YOU CAN CHANGE THE FUTURE

# BETHE DIFFERENCE

THE SUN IS A BETTER FORM OF ENERGY

**USE RENEWABLE ENERGY** 



#### RENEWABLE ENERGIES

Renewable energy is useful energy that is collected from renewable resources, which are naturally replenished on a human timescale, including carbon neutral sources like sunlight, wind, rain, tides, waves, and geothermal heat.

Types of Renewable Energy

- -Solar
- -Wind
- -Hydroelectric
- -Geothermal
- -Biomass

#### **Benefits of renewable energy**

- -Less global warming
- -Inexhaustible energy
- -Stable energy prices
- -Alternative energy will never run out

### **Disadvantages of renewable energy**

- -Storage limitations
- -Availability
- -Really high upfront cost

#### **SOLAR ENERGY**

Sun based energy is inferred by catching brilliant energy from daylight and changing over it into warmth, power, or boiling water. Photovoltaic (PV) frameworks can change over direct daylight into power using sun oriented cells.

#### **HYDRO ENERGY**

Dams are what individuals most partner with regards to hydroelectric force. Water moves through the dam's turbines to create power, known as siphoned stockpiling hydropower. Run-of-stream hydropower utilizes a channel to pipe water through instead of fueling it through a dam.

#### **BIOMASS**

Bioenergy is a renewable energy derived from biomass. Biomass is organic matter that comes from recently living plants and organisms. Using wood in your fireplace is an example of biomass that most people are familiar with.

#### WIND

Wind farms capture the energy of wind flow by using turbines and



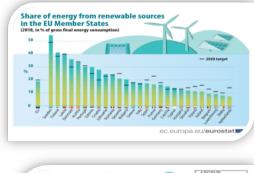


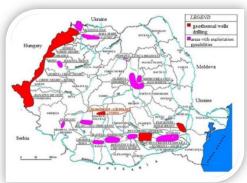
converting it into electricity. There are several forms of systems used to convert wind energy and each varies.

#### **GEOTHERMAL ENERGY**

Geothermal heat is heat that is trapped beneath the earth's crust from the formation of the Earth 4.5 billion years ago and from radioactive decay. Sometimes large amounts of this heat escapes naturally, but all at once, resulting in familiar occurrences, such as volcanic eruptions and geysers. This heat can be captured and used to produce geothermal energy by using steam that comes from the heated water pumping below the surface, which then rises to the top and can be used to operate a turbine.









#### Renewable energies in Romania

Wind and hydro energy covered 42% of Romania's energy consumption in 2018.

Wind energy and hydropower have each contributed about a third to total electricity from renewable sources in 2018.

Hydropower remains one of the most important sources of renewable energy, generating approximately 36 TWh per year and contributing 30% of the total energy stored in the network. Growing from year to year, there was an expansion of 10% between 2000 and 2016.

The Iron Gate I Hydroelectric Power Station (Portile de fier) is the largest dam on the Danube river and one of the largest hydro power plants in Europe. It is located on the Iron Gate gorge, between Romania and Serbia.

Timisoara was in 1884 the first European city with electric lighting, but with electricity produced from fossil fuels. At the beginning of the 20th century, due to the hydroelectric power plant, Timişoara was supplied with electricity produced as renewable energy.

Romania has the highest wind potential in continental Europe. A study of Erste Bank places Romania and especially the Dobrogea Region with Constanta and Tulcea counties as the second best place in Europe (after Scotland) to construct wind farms due to its large wind potential.

Geothermal energy in Romania is predominantly situated, in the western piece of the country, in the Banat locale and the western piece of the Apuseni Mountains with the main source situated in the Bihor County particularly around the city of Oradea, that has been utilizing geothermal energy for in excess of 100 years.

Theoretically, Romania has the third most noteworthy possible geothermal limit in Europe after Greece and Italy.

#### RENEWABLE ENERGIES



The renewable energies are those natural energies that aren't consumables; main renewable energies are wind, solar, hydric and geothermal.



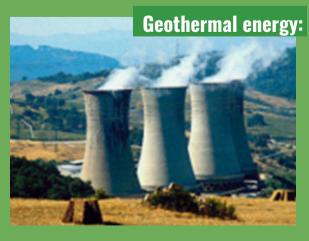
is the energy of the wind, the kinetic energy of a moving mass of air. It's collected from wind turbines, large blades found in windy areas, wind energy is transformed into electrical energy.



is the energy of the sun rays, it's a chemical energy collected by solar panels and is transformed into electrical energy. It's used to produce heat, hot water and electricity.



is a type of energy which exploits the transformation of gravitational potential energy possessed by a certain mass of water at a certain height into kinetic energy.



is a type of energy that is derived from the Planet's heat and it's considered as an alternative type of energy. The heat is derived from nuclear decay of some chemical agents (like potassium, uranium, thorium) which are in the nucleus of the Earth.

#### RENEWABLE ENERGIES IN SPAIN

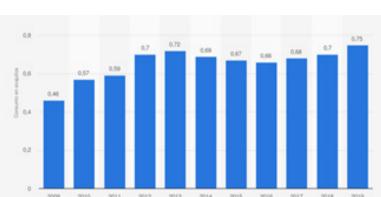


Renewable energies are the ones you get from natural sources like the sun, water, air... These energies are sustainable, and they have a very low environmental impact, because they don't generate pollution during the process of obtaining them.

Now in Spain, renewable energies represent 43% of all primary energies. But in 2018 they only represented 18%. All this is because the facilities required to obtain this type of

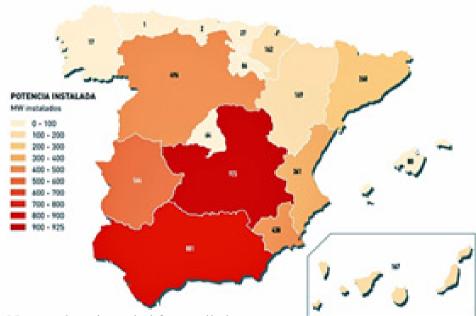
energy are so expensive.

Among the renewable energies most used are wind energy, followed by hydraulic energy and solar energy.



The most used renewable energies in Spain are solar energy and wind power, since the summer has the perfect climate to take advantage of maximum sunlight, and in winter it is perfect to take advantage of the wind.

Spain is 20% of the world's wind energy. It's the fifth country in the world in facilities of wind power, after China, the United States, Germany and India.



Near us there is a wind farm called les colladetes.



# We must be careful about the planet and the world health

The private mobility, has to be reduced. The fact of having a car's license doesn't mean you have to use your own car every time you move.





There are a lot of other options to travel without using the car, and more if you want to move around the city.







#### **GREEN TRANSPORT**

In what consists?

Made by Marta Ramon, Emilio Monte, Marina Rizo, Blanca Muñoz INS Andreu Nin El Vendrell

Spain

The most things we must know is what green transport means.

We must be careful about the planet and the world's health. Nowadays, there are a lot of improvements in technology and fortunately a lot of environmentally friendly transport has been invented. This is so positive because we would use renewable energies to move from one place to another.

#### THE PRIVATE TRANSPORT

Private mobility has to be reduced. The fact of having a car's license doesn't mean you have to use your own car every time you move. There are a lot of other options to travel without using the car, and more if you want to move around the city.

The big number of vehicles driving at the same time, the engines used and the fuel which feed them have a negative impact on the environment in many ways. So private transport should be used only when it is really necessary. 30% of the trips by car are down 3 km only, a distance which you can perfectly do walking or riding a bike. If that 30% disappears it could increase the energy saving to 60%.

#### PIVATE TRANSPORT IN MADRID

#### **CAR SHARING**

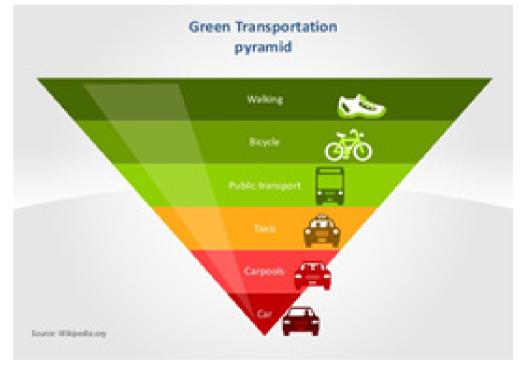


These days everybody needs transport to go everywhere. Sometimes the public transport doesn't fit with our plans and we need a car, but maybe a car for everyone is too much for the environment. We have other options like car sharing, an alternative to car ownership. Car sharing is really quick to use. There are big companies responsible for a fleet of cars with which every

person can rent a car paying just the kilometres they use it. Another way is carpooling. It's about a group of people who agree to do the same journey in the same car to reduce pollution.











# GREEN TRANSPORT IN TARANTO

# Made by Marta Ramon, Alessandro D'errico e Francesco Vadacca IISS Augusto Righi Taranto

Walking, cycling, using public transport, using car sharing are just some examples of what is now called sustainable mobility, that is, the set of virtuous practices that combine the need to move with that of reducing air and noise pollution.

In an era like the one we are experiencing, then, the theme of sustainable mobility represents one of the great challenges to significantly reduce traffic, improve air quality, prevent urban decay and cut energy consumption, gradually abandoning fossil fuels.

To do this, it is essential to integrate the various means of public transport, strengthen the network of cycle paths and promote among citizens all those forms of sharing mobility that are gradually making their entry into our cities

The advantages deriving from the adoption of alternative forms of mobility to traditional ones are relevant from all points of view: economic, social and ecological. And



in the scenario that is emerging, that of transport sustainability represents one of the key sectors for triggering a process of ecological reconversion of the economy that now appears increasingly urgent.

Not to mention the health benefits associated with increasing daily physical activity.

If we assume that road congestion in urban centers represents a waste of time and money, we deduce that moving on foot, by bus or by bicycle is potentially convenient for each of us.

Ultimately, the goal is to move, trying to leave as little trace as possible of our passage.

As a cornerstone of urban mobility policy, the European Commission strongly recommends that European towns and cities of all sizes should embrace its concept of Sustainable Urban Mobility Plan (SUMP).

This plan can vastly improve the overall quality of life for residents by addressing major challenges such as congestion, air/noise pollution, climate change, road accidents, unsightly on-street parking and the integration of new mobility services.

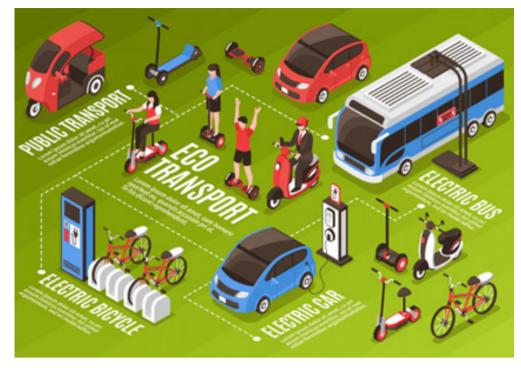
To empower cities to develop a SUMP, the European Commission continues to raise awareness through training courses, good practice examples, networking opportunities,

pedestrian movements and those by public transport, with solutions that the Plan identifies in the following terms.

#### **CYCLING AND WALKING**

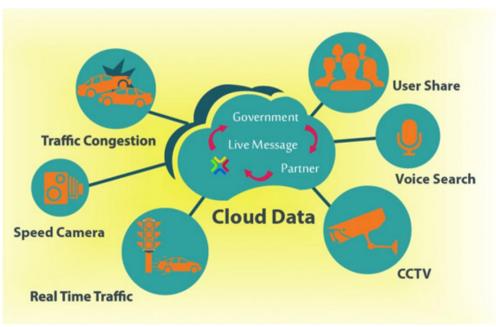
- Encourage safe cycling and pedestrian routes in the vicinity of school and university buildings (so-called metro-bike), with parking spaces inside the complexes;
- Organization of the "Piedibus", a column of adult volunteers who accompany children on foot within a radius of 200 meters from school as in a sort of "walking bus";
- Organization of vehicular traffic in order to guarantee priority and safety to users on two wheels, especially at intersections (dedicated routes, 30 km / h limit zones, ZTL (Restricted Traffic Zone), traffic calming, geometric adaptation of intersections and cycle-pedestrian paths).
- Integration of cycle paths with urban routes that pass through archaeological and naturalistic sites.
- Activation of the bike sharing system and creation of a cycle axis between the maritime station and the railway station with the creation of velostations.

Another step forward to make the city closer to the different ecological needs is represented by











# THE MUNICIPAL ADMINISTRATION OF TARANTO WITH THE APPROVAL OF ITS SUMP IS ONE OF THE FEW ITALIAN CITIES EQUIPPED WITH THIS IMPORTANT TOOL.

and by providing funding opportunities and a coordination platform for SUMP-related projects.

The municipal administration of Taranto with the approval of its SUMP is one of the few italian cities equipped with this important tool.

Many services are planned to promote compliance with traffic rules and correct vehicle parking: first of all the geolocation system of the shared vehicle, which allows greater control against theft and vandalism episodes; mandatory parking areas; speed limitations managed remotely 24 hours a day; interchangeable batteries and voice interface. The control of the vehicles is carried out both by staff around the city and by a surveillance service.

All this further reinforces the need to diversify the traffic inside the city center by facilitating cyclethe inauguration in March of the public bike sharing system called 'PISTA!'. A project born thanks to a loan from the Government, that in the first phase of the project involves the activation of five stations in the city where it will be possible to pick up and deposit both traditional and pedal assisted bicycles, available every day of the year, 24 hours a day.

#### **PRIVATE TRAFFIC**

- Creation of a Limited Crossing Traffic Zone (ZTAL) comprising the Old Town and part of the Borgo with the elimination of the crossing traffic of non-residents (there will be an electronic recognition of number plates).
- Start-up of the real-time traffic management system, called ITS (Intelligent Traffic System) which will inform users on the best routes to

choose and will give the possibility to reserve a parking space, avoiding travel related to finding a parking space.

- Use of the exchange car parks at the city entrances to replace cars with public transport and bicycles.
- Construction of parking lots at the maritime station and the arsenal, ie at the ends of the ZTAL area.
  - Increase of limited traffic areas.
- Car sharing system within the ZTAL

#### **ELECTRIC BUSSES**

To achieve the objectives reported in the STUM in our city, some measures have already been adopted, among which we point out the acquisition of electric and hybrid buses. Electric vehicles, in particular, will be used in the Old City in order to further reduce the emission of







pollutants. The hybrid-powered buses will instead join the 24 hybrid buses, acquired by the Municipality of Taranto by participating in the "Smart Go City" tender, which have already been online since January of this year.

The municipality of Taranto also placed 300 latest generation electric scooters on the territory in January 2020 distributed over 75 hubs.

The company that manages urban mobility in Taranto also offers a transport service via two motor ships. The service has a double value: tourist and public transport.

#### **TOURIST SERVICE**

The crossings in Mar Piccolo and Mar Grande allow you to get to know the city from a new perspective: in fact, the route allows you to admire enchanting views of the city of Taranto from the sea, the landscape, historical and natural beauties of the city.

Accompanied by a competent

guide, the journey is enriched with curious anecdotes about the history and traditions of Taranto.

The cultural ideas offered allow you to deepen the most important aspects of local history, a formative value for both tourists and citizens themselves.

The tourist service is active all year round.

It is also possible to book private tourist excursions to meet the specific needs of schools, companies, individuals and public bodies.

#### **PUBLIC TRASPORT**

A waterway service, qualified as local public transport, through the two motor ships which connect the city of Taranto with the island of "San Pietro", part of the archipelago of the Cheradi islands, in the Mar Grande.

On the island of San Pietro, the Navy manages a bathhouse for the use of its staff and partially open to the public.



The waterway service is offered during the summer season.

#### THE ELECTRIC CAR



#### Made by Roberto Parabita IISS Augusto Righi Taranto

The electric car is a car with an electric motor that uses as its primary energy source the chemical energy stored in one or more rechargeable batteries. The motor uses the chemical energy of the batteries in the form of electrical energy

Electric vehicles have overall greater energy efficiency than internal combustion engines; as a disadvantageous peculiarity there is a limited autonomy between recharges, a long time taken for recharging and the short duration of the batteries, even if with the progress of research on new types of rechargeable batteries and new technologies they have increased their autonomy and its useful life, while at the same time reducing its recharging time.

This new technology is less dangerous for the environment,

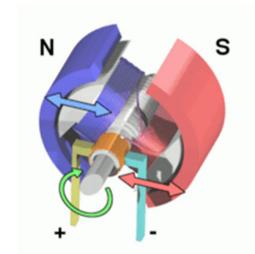
because they do not locally produce pollutants during or for the use of the vehicle.

### PRINCIPLE OF OPERATION OF AN ELECTRIC CAR ENGINE

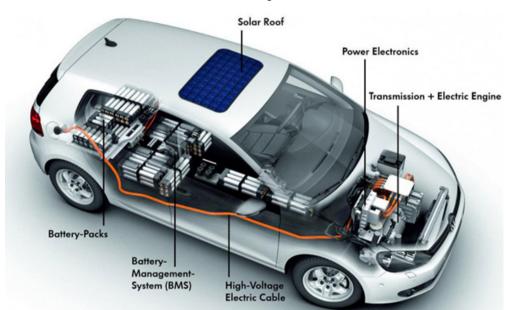
The electric motor of a car is based on the process of transforming the electrical energy stored in the battery into mechanical energy that makes the vehicle move.

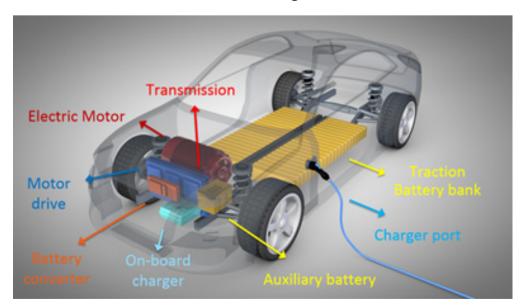
How does a car electric motor work?

The electrical energy accumulated by the battery is transferred to the electric motor thanks to an inverter device which has the task of transforming direct current into alternating current and sending it to the engine. During the deceleration phases, the electric motor becomes generator and recharges the battery. On some electric cars, energy recovery also occurs under braking. On some electric cars, energy recovery also occurs under braking. The electric motor of a car is technically less "complicated" than a traditional internal combustion engine. The "zero emissions" unit is



in fact composed of only two main components: the stator and the rotor. The stator is the fixed part of the electric motor of a car: composed of a conductor (formed by copper wires), generates variable magnetic fields opposite to those generated by the rotor. The rotor - the moving part of a car's electric motor - is equipped with permanent magnets. The torque, born from the interaction between the two magnetic fields of the stator and rotor, is transmitted from the rotor to the drive wheels through magnets. The electric cars are aesthetically identical to the internal combustion engine models, were it not for the lack of the exhaust pipe. Inside, however, the differences are evident. In fact, the engine of an electric car is less complicated than the thermal ones. We can say that the two main components of the electric motor are the stator and the rotor. The heart of the electric motors is the battery used to accumulate the energy needed for travel. The average life of a battery before its replacement is about 200,000 kilometers, even if the car manufacturers are working on the creation of longer-lasting, powerful and faster batteries in the charging phase.





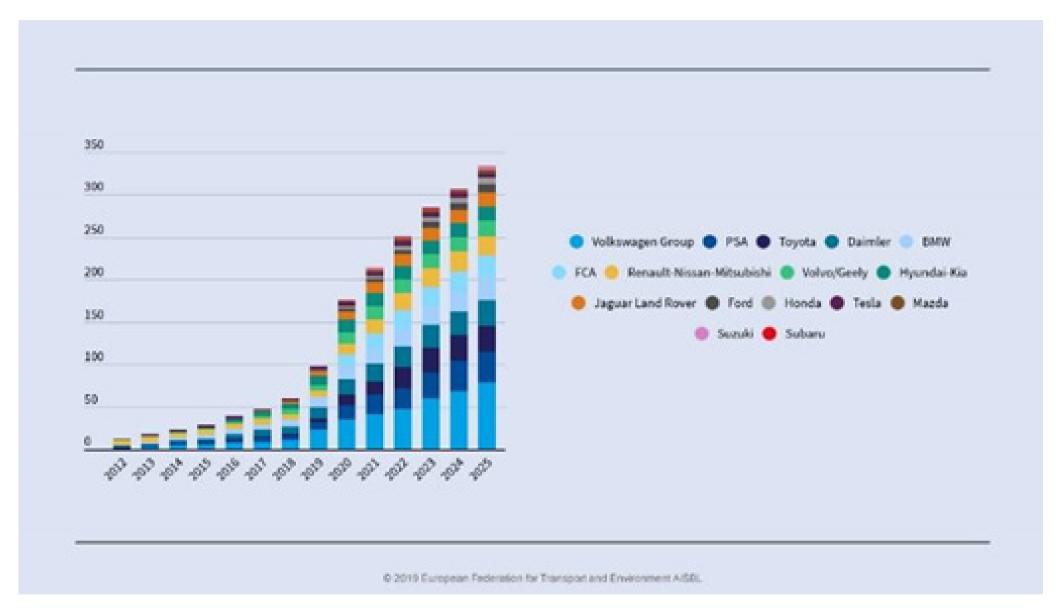
Electric car: main devices



The basic parts of the car electric motor



#### WHY SHOULD WE USE THE ELECTRIC CAR?



# Made by Fortes Lyceum Gorinchem the Netherlands

Consumers have opted for an electric car more often in 2020, partly because of a purchase subsidy. The total number of electric cars on Dutch roads rose to almost 145,000, doubling compared to 2019.

This has emerged from an investigation into electric driving by the ANWB. According to the organization, the advance of the electric car has several causes. In this way, the current range is increasingly in line with consumer needs. The number of models in the price range up to 50,000 euros increased from 22 to 31.

The average range also increased sharply. Furthermore, the total operating costs are now comparable to those of an average petrol car. In addition, the range of fast chargers in the Netherlands has increased significantly.



26 percent are considering purchasing

The number of Dutch people considering purchasing an electric car within five years rose from 20 percent to 26 percent.

**March 2021** 

Thumbnail preview Read also

Electric Volkswagen ID.3 bestselling car in November

Price remains a stumbling block

Although there is a subsidy for the purchase of an electric car, it is not yet a viable option for everyone. The purchase price is still the biggest stumbling block. The main reason for choosing an electric car is the environment (60 percent) followed by 'Never refuel again' (32 percent). People are deterred mainly by the too high purchase price (50 percent) and the low range (30 percent)



#### GREEN TRANSPORT IN ROMANIA

#### • WHAT IS TRANSPORT?

Transport, also referred to as transportation, is the movement of humans, animals or objects from a place to another.

#### WHAT DOES GREEN MEAN?

In this context, green means ecological or environmentally friendly.

#### WHAT IS GREEN TRANSPORT, AS A WHOLE?

Green transportation revolves mostly around implementing environmentally-friendly transportation options, but also means making better travel choices and doing whatever you can to help the environment as well.

#### WHY IS GREEN TRANSPORT NEEDED?

Green transport is needed, especially in this day and age, to better help protect the environment and prevent climate change and other side effects of pollution as much as possible.

### • ARE THERE ANY ENVIRONMENTALLY-FRIENDLY TRANSPORTATION OPTIONS IN ROMANIA?

Although not very widely spread throughout Romania, there are places with electrical or less polluting transport options. One of the most important places with green transport options is the city of Cluj-Napoca. 15 diesel buses were converted in trolleybuses in 2011.

The 15 trolley buses converted from diesel, reduced pollution with 1560 tonnes annually. By replacing 10 diesel buses by 10 electric buses reduced harmful emissions by 545.7 tons per year. We breathe cleaner air, we will be healthier. Cluj-Napoca, one of the largest cities in Romania, has been developing sustainable city plans for almost ten years. The 2014-2020 National Action Plan on climate change was meant to use renewable energy, increase energy efficiency and protect the environment.

The advantages of the green transport:

- Increases energy efficiency
- Ecological
- Quiet, low vibration and low noise pollution
  - Modern facilities
  - Half the price of a new trolley
- Operation successful nationally and internationally acclaimed
- Electric energy easily obtained from renewable resources (solar, wind, hydro, etc.)
- Efficient energy consumption (2.5-3 times lower than diesel buses and4 times lower for tram)

#### WHAT GREEN TRANSPORT OPTIONS ARE THERE IN ROMANIA?

There aren't many "eco" vehicles or "green" public transportation methods in Romania; some of the implemented methods for public transportation so far are trams and trolleybuses. But, for green transportation, bikes, scooters, and



any type of vehicle that doesn't require fuel also makes a difference, no matter how small.

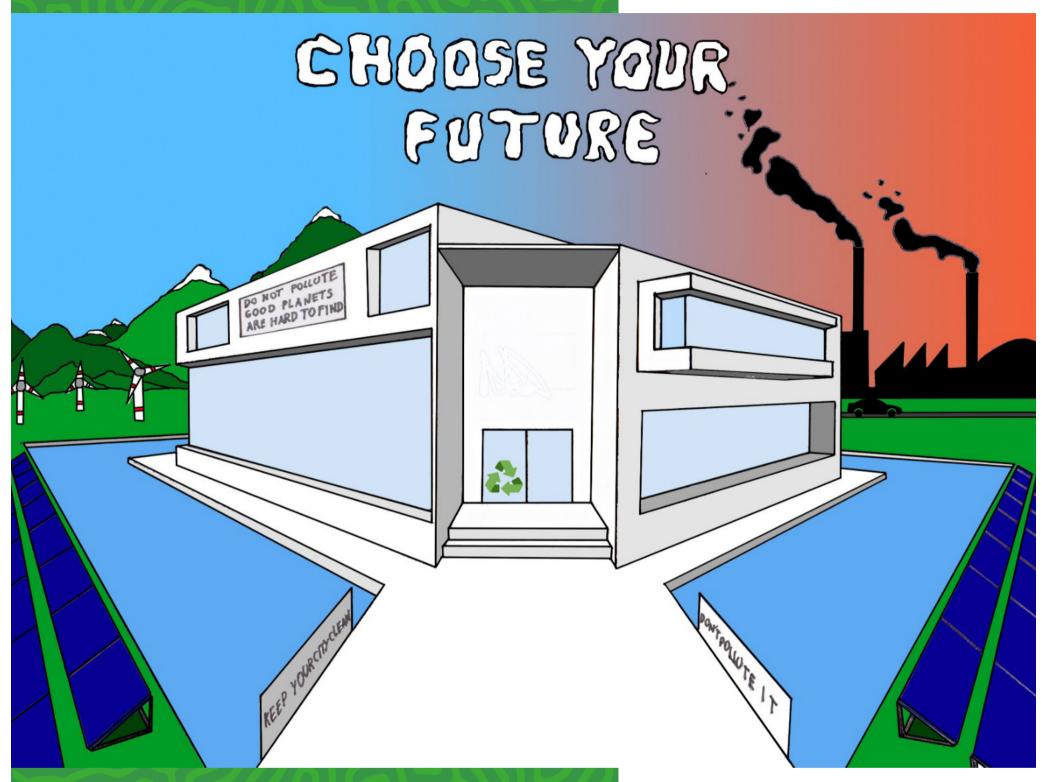
### • WHAT ARE SOME OPTIONS TO IMPLEMENT MORE GREEN TRANSPORTATION METHODS?

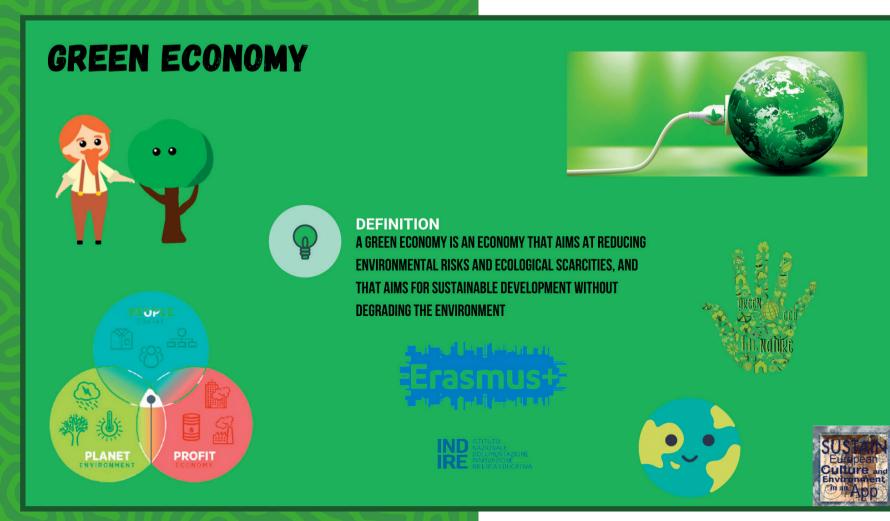
First of all, the most prominent methods are encouraging the use of bicycles and vehicles that don't require fuel and making electrical and less fuel-consuming cars, buses, trains more available to a wider portion of the population. But there are also some more creative methods of reducing pollution due to gas and diesel-using vehicles, like car-pooling (sharing the same vehicle when going to the same destination), using public transportation more, or just simply walking, which not only helps the environment, but also saves you money.

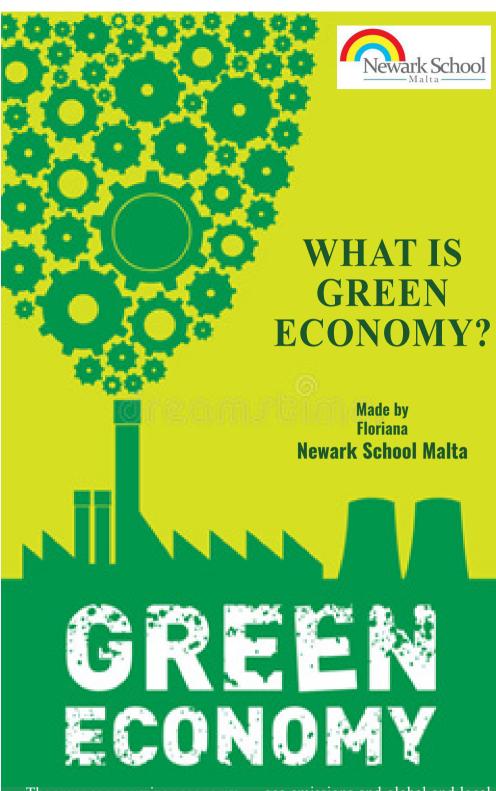




# CHOSE YOUR FUTURE







The green economy is an economy that can hold its environmental impact.

Fundamental elements that combine to implement this kind of eco-economy are technology and scientific knowledge.

The green economy offers economic, legislative, technological and public education and can reduce the energy consumption, waste, natural resources and environmental damage while promoting a model of sustainable development through increased energy efficiency and production.

Renewable energy, such as solar power, wind power, geothermal, hydropower and biomass.are examples of alternative energy

The objectives of the green economy are:

- to make an eco-sustainable production, with a decrease in the dependence on foreign countries,
  - the reduction of greenhouse

gas emissions and global and local pollution

- to produce and promote business and increase earnings.

Specifically in the Italian green economy sectors which recorded major successes there are energy and the recovery of waste.

The green economy considers the environment as an investment,

This type of economy in fact aims at reducing energy consumption while undertaking important pollution reduction strategies, without neglecting the possibility of obtaining energy efficiency.

In any case we must take into account that the important objective of a green economy is to ensure good working conditions for all.

In this way you can also consider a solidarity economy, pointing to the environment right through people's respect.and active collaboration.



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INS



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A green economy is a way to rebuild the country.

A green economy prioritizes the health of people and planet.

**CHOOSE YOUR FUTURE!** 



#### Made by Federico Mollura - Luca Panico Roberto Capuano - Marco Stasi IISS Augusto Righi Taranto

Over the last decades, the increase in energy production from renewable sources has grown rapidly. In Italy, about 30% of the national energy production uses renewable sources.

#### Puglia is the leading region in Italy in Renewable energy production

100% of the Apulian municipalities have at least one renewable source plant on their territory.

Apulia is the first Italian producer of both wind and solar power, and the third Italian producer of biomass sources

These three new sources of energy (including wind, photovoltaic and biomass) have brought Apulia with opportunities for further economic growth by protecting the great legacy

#### GREEN ECONOMY - PUGLIA, ITALY

of nature and landscape of the region

Apulia is also out in front when it comes to the recuperation of contaminated site as well as the safeguarding and monitoring of its coastline and seas and in eco building

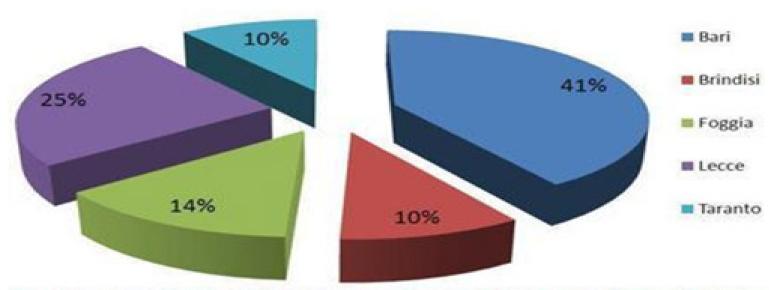
• The greater power from renewable sources installed is present in the province of Foggia, followed by

Lecce, Bari, and Andria-Trani.

- In terms of energy production it is always the province of Foggia to provide the greatest contribution from renewable sources, as with wind energy for which it always plays the leading role, followed by Bari and at the end Lecce.
- Solar photovoltaic technology

is the most widespread in terms of numbers, with 97.9% of the plants, followed by wind power with 1.9% and hydroelectric and bio mass power

• These are the percentages of the distribution of the plants in the Apulian territory.



forte: elaborazione Centro Studi Confartigianato Imprese Puglia su dati Unioncamere-InfoCamere, Movimprese

# BARI FUTURE AIRPORT

#### **CLEAN ENERGY AT APULIAN AIRPORTS**

- Anticipating what would be a common practice in energy supply, Apulian airports has two plants for the production of renewable energy in Bari and Brindisi.
- The production of the new plants, among the first built in Puglia, contributes to around 30-40% of airports needs, with economic benefits not only in terms of reduction of environmental impact.
- The ultimate goal is to build renewable energy plants at all Puglia airports.

# Puglia is the leading region in Italy in Renewable energy production



APULIA, TROIA (FOGGIA) – THE "CO2-EATING MONSTER", A NEW SUCCESS "MADE IN APULIA": THE CONSTRUCTION OF THE FIRST PLANT IN ITALY THAT TURNS THE SURPLUS OF ENERGY FROM RENEWABLE SOURCES INTO GAS

- This revolutionary plant is the only one in Italy, that captures carbon dioxide from the atmosphere.
- The plant was completed in July 2018 and is already in operation as part of the project of "STORE & GO", founded by the European Union's "Horizon 2020 Research and Innovation Programme"
- The plant collects carbon dioxide (CO2) from the air and matches it to the hydrogen (H2) to produce fuel (methane) with little or no added CO2 in the atmosphere. Currently only three plants like this exist, the other two are in Switzerland and in Germany.



#### THE HYDROGEN CITADEL CORATO BARI

- The use of hydrogen will lead to a different architecture that is a decentralized architecture, with a distributed, widespread production, but also the generation must be such.
- The spread of renewables does not have to be on the countryside because land has to be grown with our agricultural products and not host photovoltaic panels. These must be integrated with the

buildings.

- Hydrogen uses Fuel Cells which are fuel cells that are very suitable for a widespread power generation and distribution.
- The Hydrogen Citadel is a demonstration plant built by H2U at its headquarters in Cala Corvino in Monopoli, Puglia, during the first years of activity.

#### **OUR STUDY VISIT TO ENI**

On October 17th of 2019 we went to visit Eni S.p.A. (Ente Nazionale Idrocarburi). In this visit we have been able to observe the various crude oil processing plants and those for the processing of waste oil since they have made us aware of their choice to make all Eni processing stations ecological and therefore produce energies not through the combustion of fossil fuels such as coal, oil and gas but through the use of renewable energies such as, as mentioned above, through the combustion of oil, through wind energy, hydroelectric geothermal energy



and through the use of bio masses. The director of ENI in Taranto and various specialists within the refinery's monitoring facilities told us that their goal is to, by 2030, reduce CO<sup>2</sup> emissions to zero and for this they have not only the reclamation of all their refineries established in 67 countries began, but they also started a work of forestation.

#### **ENI NEW HYDROGEN PLANT IN TARANTO**



- To increase hydrogen production capacity in the Taranto Refinery a new plant is being built with the capacity of 55,000 Nm3/h. The plant operates on natural gas, supplied by the SNAM grid, and on GPL produced by the refinery itself.
- The hydrogen production is intended to satisfy the increased demand of the existing revamped hydrocracker plant. To serve the new plant and the nearby under construction sulfur plant a new building will be constructed to accommodate the electric and control rooms.

### FORTES LYCEUM

# Made by Fortes Lyceum Gorinchem the Netherlands

The old economic model, addicted to oil, gas, coal and endless growth, has reached its limits. It is high time we left the throwaway economy behind and opted for a circular economy without delay. We are shifting the burden on labor towards raw materials, pollution, waste and energy. In this way we create sustainable jobs and stop the over-exploitation of our planet.

Of course you will also feel this change as a consumer. Reuse and

#### **ECONOMY GOES GREEN**



restore become the norm, throw away the exception. Products come with a passport that gives you insight into the expected lifespan, the parts and the materials. We are extending the warranty period and setting up an inspection body that prevents built-in aging. We make repairing products more attractive. We replace disposable products with reusable products and deposit-refund systems ensure better collection.

Our ports are becoming the epicenter of the low-carbon circular economy. They go all out for a green manufacturing industry, with green chemistry, clean technologies and sustainable jobs. We close industrial cycles so that fewer raw materials and goods need to be transported

over long distances. Waste and residual heat from one company thus become raw material or energy for another company.

We are giving the wind in our sails to partial initiatives, learning networks and pilot projects that work socially, ecologically and stimulate democratically. We entrepreneurship by simplifying the status of starting self-employed and by allowing the various statuses to converge so that you can switch more easily. We reduce the administrative burden for the self-employed and SMEs and ensure that you can do as much paperwork as possible digitally and free of charge. If you are having a difficult period, you can count on support and compensation as a selfemployed person.

Finally, we invest heavily in research and innovation. We focus on societal challenges, such as climate, aging and poverty and stimulate cooperation across sectors.

#### **GREEN LEFT**

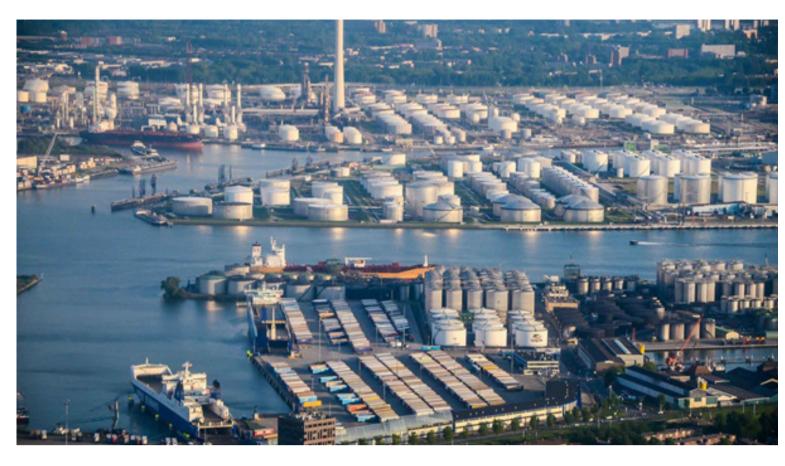
The climate crisis is largely caused by CO2 emissions. CO2 is created, among other things, by burning oil, gas and coal. There are proposals to capture CO2 and store it in the soil. However, that is not a sustainable solution that removes the root cause of the problem. Also, the capture of CO2 does not contribute to the energy transition to sustainable energy. We prefer to opt for energy from the sun and wind, which does not release CO2.

#### **SPOKESMAN**

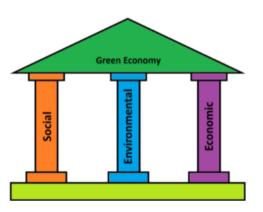
Yet we prefer to see CO2 underground than in the air. GroenLinks is therefore not by definition against CO2 storage. We do not have the luxury of excluding new techniques in advance; there is no time to lose in tackling climate change. GroenLinks does set a number of hard conditions for CO2 storage. Investments in CO2 storage must not come at the expense of investments in sustainable energy and energy saving. Moreover, the polluter has to pay. So no tax money on CO2 storage if there are alternatives. CO2 may only be stored if the safety of people and the environment can be guaranteed.

#### **EXPERIMENTS**

CO2 has never been permanently stored underground on a large scale. Demonstration projects can provide clarity about possible risks. GroenLinks believes that these



# Our ports are becoming the epicenter of the low-carbon circular economy



experiments should take place at sea, not in densely populated areas. Previously, the previous cabinet wanted to store CO2 storage under Barendrecht and in the north of the country. Fortunately, critical citizens, action groups and GroenLinks have been able to change the cabinet's thoughts.

#### **CLEAN ENERGY**

GroenLinks wants to work on clean energy. Electricity from sun, wind and water. Then we no longer need dirty coal-fired power stations. Prevention is always better than cure. Pumping CO2 underground is a quick fix; it is better not to produce that CO2 at all.

#### **GREEN ECONOMY**

Renewable energy is not only good for the environment, it also creates a lot of green jobs. Hundreds of thousands of people already work in the green economy in Germany. GroenLinks also wants to work on green jobs in the Netherlands.

#### **GREEN ECONOMY BENEFITS**



Green economy studies the relationship between the natural system (the biosphere) and the economic and social subsystems that are developed in it. Green economy relies on the infeasibility of the conventional economic system, which is based on the unlimited economic growth that goes against the physical and biological limits of our planet. Summarising, it is an economy that pretends to be used within the limits of nature and with social justice.

#### **GREEN ECONOMY BENEFITS**

Green economy has lots of benefits, it improves human well-being and social equity, reduces environmental risks and ecological scarcity, and it can help to stop the climate crisis.

#### **GREEN ECONOMY PROJECTS**

Fortunately, in Catalonia, we have several green economy projects. A great example in our region is a cooperative called 'Som Energia'. It promotes a collective purchase of solar panels for private homes. Therefore, Som Energia members achieve better technical and economic conditions, and this encourages more people to decide to install a renewable energy source at their homes and, at the same time, promotes an emerging economic activity that allows us to move towards a more sustainable society.





# ECO TOURISM

### FORTES LYCEUM

# Made by Fortes Lyceum Gorinchem the Netherlands

Sustainable tourism and ecotourism are forms of tourism that seriously take into account the protection of nature, the environment and culture, and sometimes also human rights. Sustainable tourism and eco-tourism



emerged in the period after 1970.

The term ecotourism is said to have been used for the first time by the Mexican architect Hector Ceballos-Lascurain in 1983.

He defined this form of tourism in which the traveler visits relatively undisturbed areas and there he studies, admires and admires the landscape, flora and fauna. enjoy this. This, according to Ceballos-Lascurain, will lead to a greater awareness and knowledge of the natural environment, including its cultural aspects, in the traveler and make this person a person very aware of the need for protection.

Sustainable tourism and ecotourism have developed into a substantial part of the tourism sector.

#### **CONTENT**

- 1Shapes
- 2Criteria
- 3sustainable transport and aviation sector
- 4 Critical
- 5See also
- 6External links and resources Form

There are various forms of sustainable tourism. Some forms are more focused on nature and environmental education, others on small-scale or limiting environmental damage, yet others respect local cultures and / or human rights. Forms in which nature or the environment are central are also called ecotourism. In some cases, the tourist is explicitly asked for money to compensate for nature or environmental damage or to support local cultures or economies. Examples of sustainable tourism are agrotourism, where farmers are

paid a fair price for organically or sustainably grown vegetables and meat, holidays where CO2 emissions are offset, small-scale nature trips or working holidays that help build or finance local facilities such as an orphanage.

#### **CRITERIA**

There are no generally accepted criteria for sustainable tourism or ecotourism. However, the United Nations has established 12 principles for sustainable tourism. [1]

#### **SUSTAINABLE TOURISM MUST:**

- 1. be economically viable;
- 2. contribute to the local economy and prosperity;
- 3. contribute to good employment practices, such as good and wellpaid jobs without discrimination on the grounds of religion, gender or physical condition;
- 4. contribute to an equal distribution of economic and other benefits among the local community;
- 5. contribute to the expectations of the visitors, such as the provision of good and safe services without making any distinction according to gender, race or physical condition;
- 6. involve local communities and other local stakeholders in decision-

making and management of tourism activities in their area;

- 7. to protect or improve the quality of life of local communities, including social structures and the quality of the living environment, while avoiding exploitation;
- 8. Respect the cultural identity, traditions and cultural history of the communities in the area;
- 9. respect the quality of the landscape and the environment;
- 10. respect the biological richness, flora, fauna and their habitats and conditions;
- 11. minimize the use of scarce and irreplaceable natural resources;
- 12. minimize water, soil and air pollution.

Ecotourism is a nature-oriented form of tourism that observes the sustainability criteria. The International Ecotourism Society (TIES) defines "a responsible form of travel in nature reserves that does not harm the environment and promotes the well-being of the local population". Criteria for ecotourism have been developed in Costa Rica and Switzerland, among others. The Fair Trade Tourism (FTT), which is active in Africa, has also developed a system of certification and thus wants





#### **SUSTAINABLE TOURISM**

to support tourism with respect for nature, culture and rural populations and cooperatives.

### SUSTAINABLE TRANSPORT AND AVIATION SECTOR

Transport to the holiday destination is an important aspect of sustainable tourism. Over long distances, the train is the least polluting means of transport and the plane has a large ecological footprint, partly because of the large share in global Co2 emissions. However, the international transport sector, including the aviation industry, was not included in the Paris climate agreement.

Because airline tickets have become significantly cheaper in the first decades of the 21st century, the number of air travelers increased sharply. [4] Both trends are expected to be strengthened [4] In 2014, more than a billion people flew; this number is expected to triple by 2050. [5] In addition to CO2 emissions, another problem of cheap airline tickets is that popular destinations suffer from mass tourism (for example in Barcelona) because of waste and nuisance. [4] Sustainable travel companies prefer short-haul travel and avoid or limit air travel.

A recent phenomenon is the possibility offered by (travel) organizations to offset greenhouse gas emissions. This is a result of the Paris climate summit, which aimed to stimulate the richer countries to finance projects in developing countries that support the local population to emit less greenhouse gases. Various organizations offer via their website the possibility to calculate the CO2 emissions of a flight or car holiday, with the

possibility to offset the equivalent of these emissions through a certified project (which bears the Gold Standard label, for example). [6]

Although the compensation projects are generally welcomed because of their positive impact on the local population of third world countries, critics note that this form of CO2 compensation gives the false feeling of traveling 'sustainably'. [7] For example, a report by the European Commission states that these projects are often overestimated and do not deliver a measurable reduction of greenhouse gases. [8] Moreover, paying for CO2 compensation is not compulsory, so that the actual emissions of an aircraft are not compensated (only its own share in this). [6] In addition, these initiatives only aim to compensate for greenhouse gas emissions and not other negative effects of airplanes, cars and coaches on the living environment, such as the emission of particulate matter.

#### **CRITICISM**

There is certainly criticism of ecotourism. As mentioned, there is no generally accepted definition. This means that anyone, including commercial tour operators - can use the label. Many forms of ecotourism differ little from 'normal' tourism. In practice, it also turns out to be difficult to meet the criteria. Preserving nature areas does not always go hand in hand with respecting local cultures and communities. Organization and regulations often fail to give shape to ecotourism. The money that tourists pay for the most part ends up with Western companies that organize the trips.

Key Population Heritage Elements Integrity and Health Culture Accessible Tourism **Tourism** Sustainable Sustainable Society Culture Community Rural Tourism **Tourism** Sustainable **Tourism** Alternative Behavioral Tourism **Economics** Sustainable Sustainable Environment Economy Political Low-Carbon **Economics Tourism** Circular **Eco-Tourism Economics** 

IT IS TOURISM THAT FOLLOWS THE PRINCIPLES OF SUSTAINABILITY, MINIMIZING THE IMPACT ON THE ENVIRONMENT AND LOCAL CULTURE, WHILE GENERATING INCOME AND JOBS FOR THE PEOPLE OF THE SECTOR.

THE IMPORTANCE OF THIS TYPE OF TOURISM IS TO MINIMIZE THE ENVIRONMENTAL IMPACT, AND PROMOTE GREENER TOURISM FOR NEW GENERATIONS WHO CARE ABOUT THE PLANET.



Les Madrigueres are an important part of the sustainable tourism of El Vendrell. It is a protected area, it is one of the few places where you can find farmland next to the beach. One of its most common species is the Corriol



### SUSTAINABLE TOURISM AND GREEN ECONOMY

MIRON COSTITUTE BACKLI

From its beginning, green tourism was known as a small scale tourism that encouraged people to visit natural areas and minimize the impacts of tourism on the environment. The term is used for businesses with an environmentally friendly activity.

However, more and more lately, green tourism has been oftentimes used by businesses that do not put that much effort into making their activity more sustainable and the term became more known as greenwashing. Greenwashing refers to companies that are more interested in becoming known for its green tourism and less for its contribution to the environment and local communities.

A Green Economy can be thought of as an alternative vision for growth and development that can generate improvements in people's lives in a lot of ways, consistent with sustainable development.

Sustainable tourism started with creating tours and then with adding experiences in them. When you visit an attraction, is not only what you see. Stories about that attraction, details about people that lived there and interesting, secret facts about it make from a simple visit a true experience.



Travelers enjoy not only the main attractions in Romania, but also they experience local life, the traditional food, and activities that make them understand what Romania is about. A holiday with experiences is a holiday full of memories and the first step in sustainable tourism is understanding the place you visit.

Experiences are fun, but only the safe ones. The safety of travelers is the most important thing. Fortunately, Romania is a safe country and there aren't threats that other countries are facing (neither the natural nor the social ones).

In Romania some examples of sustainable tourism projects are:

#### **MY TRANSYLVANIA**

The project promotes and sustains the development of small communities through different projects and events. The vision and mission of the association are to promote the local communities in a sustainable, trustworthy, and natural way.

#### ASOCIAȚIA "IVAN PATZAICHIN – MILA 23"

The association started in 2010 and it has the purpose to help the local development of Danube Delta and other natural spots in Romania. The core values of the association are preserving and promoting the cultural and natural resources in Romania with the purpose of enhancing the individual characteristic of a place for responsible tourism development.



### ADEPT FOUNDATION - SASCHIZ POTTER

The foundation has a strong corporate social responsibility and promotes the revival and sustainable development of rural communities. The project for Saschiz Pottery has as purpose the revival of local crafts as it helps the local tourism development and increases the employability of young people in the region.

**Ecotourism** is focused on conserving both the terrestrial and marine environments. The essential value of ecotourism has to be of ensuring long term sustainability of the travel industry by bringing together local communities, tourism industry and nature preservationists.

Piatra Craiului - Zarnesti in Brasov county is an accredited ecotourism spot that has become popular as tourists come to see the bears at Piatra Craiului Natural Reserve. The area is as well a renowned rural location that offers incredible experiences based on cooking traditional and organic dishes.

The Bison Land has an important value for tourism in Romania thanks to its monasteries the protected area

of Vanatori Neamt Nature Park. It was as well included in Top 100 most sustainable destinations in the world in 2017.

As sustainable tourism and ecotourism do, *geotourism* benefits the local communities and economy but it enhances the benefits on the integrity of a destination. Everyone can be a geotraveler by "going local". The key is to stay, travel, eat and shop from local businesses, where the spending will boost the economy, support the development of the local communities and will help with the preservation of the destination's authenticity.

How to travel more responsible?

- Minimize waste and do not litter
- Respect local habits and culture
- Support the local economy by buying local souvenirs
- Be mindful of the environment
- Chose local restaurants and accommodation whenever possible
- Book a holiday even in low season to avoid crowds and support the local community
- Try and use reusable packages or limit the usage of single use plastic

#### **GREEN ECONOMY IN ROMANIA**

As a general reference, Romania is characterized by a slow and delayed building a functioning market economy, with gaps in meeting post-accession commitments, political instability and additional

complications arising from the global financial and economic crisis of recent years.

The concept of "green economy" is often understood in a more distinctive sense that specifically focuses on the fundamental changes necessary to ensure sustainability of economic systems.

A sustainable society is characterized by green investments, investments in research, development and innovation, industrial upgrading, update and new skills for existing and new occupations, green and competitive economy development.

The green economy offers opportunities for renewal and growth in harmony with the natural and human capital available to our country. We consider the possibilities for exploiting natural resources with responsibility for national wealth for the benefit of citizens, but also to improve the competitiveness of the Romanian economy in present and future.

Romania has taken important steps towards sustainable development and it is very important to reduce losses, increase resource efficiency and reuse waste. Yet, there is not a model of sustainable development. Sustainable development means continuous growth, without affecting the quality of life and society should be greener tomorrow than today.

Economics, the theory of evolution, ecology and anthropology teaches us how human societies have developed and how they have evolved their resource use patterns and natural environments. All results of studies in these fields have emphasized the importance of conservation and management strategies of natural capital in the long term.





# Made by Francesco Greco, Giuseppe Monaco, Lorenzo Gabriele Matteo Pupino IISS Augusto Righi Taranto

In recent years, we have heard more and more often about sustainable tourism and operators and companies in the tourism sector have been engaging in the adoption of green practices that make it possible to reduce the environmental impact of the sector.

Traveling in a sustainable way means doing it respecting the planet and in harmony with the local community and culture, without damaging the beauty of the area.

Each of us can adopt green habits to travel sustainably by making conscious choices to become responsible tourists and preserve the uniqueness of the destinations visited.

In this way it will be possible to live a unique experience in harmony with the environment that surrounds us and with respect for local populations.

Sustainable and responsible tourists love to travel to admire enchanting landscapes, discover hidden places and learn about local culture, paying attention not to damage the destinations visited and to minimize the environmental impact.

The travel restrictions imposed by the pandemic have taught us to appreciate the beauties offered by our country and to visit wonderful places a few kilometers from our home.

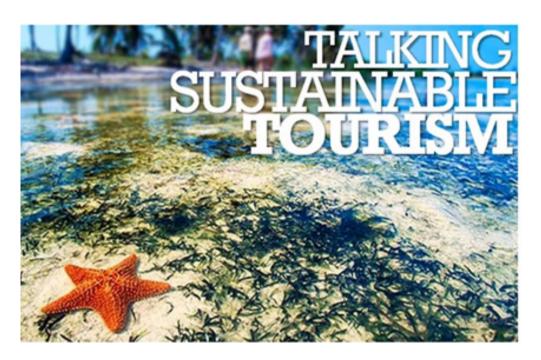
This is certainly a very positive element in terms of sustainability because it has given rise to a real rediscovery of local wonders.

An eco-friendly structure can be recognized by several factors, first of all the attention to saving resources and reducing consumption.

This is expressed in the choice of low-impact energy systems, which favor energy savings or provide for the use of renewable energy.

An example of eco-sustainable tourism in Taranto is the creation of the Ecomuseum "Palude La Vela", from an idea of the WWF Taranto in partnership with other associations

#### SUSTAINABLE TOURISM IN TARANTO



and companies in the area, the Municipality of Taranto and some departments of the University of Bari (Department of Earth Sciences and Geoenvironmental and Department of Biology).

The project aims at the promotion (creation of the Community Map and fruition with guided tours by canoe, trekking, mountain biking and horses) and the protection (stray monitoring and poaching) of the terrestrial and marine environments of the

the promontory known as "Il Fronte" and the end of the Capo D'Ayala natural channel.

Surrounded by the pine forest, the swamp is home to numerous species of birds, both sedentary and migratory, including herons, egrets, sandpipers, flamingos and ospreys, as well as the rare Italian Knight.

In this mainly marshy habitat, reeds, Mediterranean scrub and large marshes welcome a flora rich in interesting species, including

beautiful wild orchids and various plants suitable for living in brackish environments.

Another reality that makes environmental sustainability an opportunity for tourist propaganda of the Taranto area is the Jonian Dolphin Conservation.

The JDC team is a group of young people united by a single passion, the sea and its inhabitants, who, thanks to their skills and abilities, have made it possible to conduct research studies of cetaceans in their natural environment and to take action to protect them. Biologists, environmental guides, experienced seamen and young volunteers on board will provide our guests with the unique experience of sailing in the Gulf of Taranto on board vessels which have been specially designed and equipped for cetacean research activities.

Thanks to their activity they contribute to the promotion of Taranto and the naturalistic treasure represented by its gulf, which can be defined as a "nursery" for the numerous cetaceans present in the Ionian Sea.

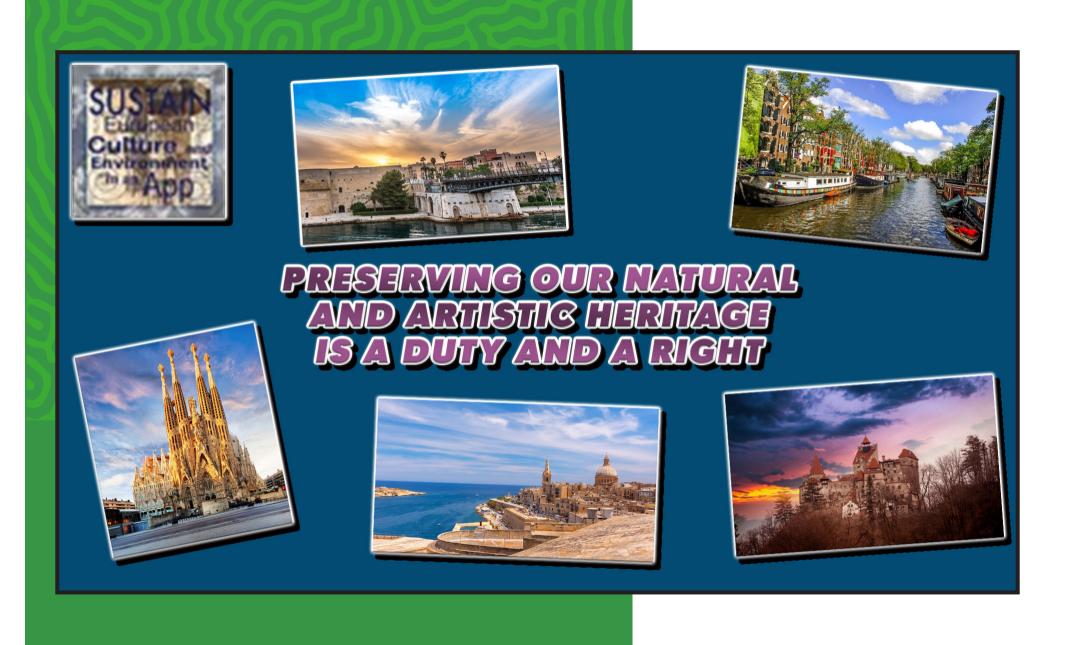


areas included in the Ecomuseum, upgrading them in environmental, economic and socio-cultural sustainability, creating a widespread cultural activity in the area capable of documenting, conserving, enhancing the biodiversity of the Reserve and the manifestations of tangible and intangible culture in the area.

With an extension of about 7 hectares, the WWF oasis "Palude La Vela" is a protected area overlooking the shores of the Mar Piccolo, about 7 kilometers from Taranto, between







# Made by Ins Andreu Nin El Vendrell Spain

One of the most important things in our countries is the historical and natural heritage. We can learn a lot of things about our past thanks to them. In our country, Spain, it isn't an exception. It's important to keep our culture alive, and it's a source of sustainable tourism because tourists help to keep our historical heritage.

### PRESERVING THE HISTORICAL AND NATURAL HERITAGE

# OF OUR COUNTRIES





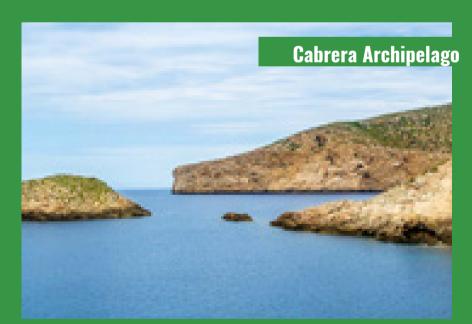
This is Basílica de la Sagrada Família. It's located in Barcelona and was built by Antoni Gaudí. When he died, he had only finished a fourth part of the monument. It's a really important part of the Catalan historical heritage and a really attractive place that tourists must visit!



Built in the 2nd century A.D. on the shores of the Mediterranean Sea, the amphitheatre was used as a venue for numerous popular events, including gladiatorial games. It has the elliptical plan which is characteristic of this type of construction.

There are pits which were used

for auxiliary services located beneath the arena where these spectacles took place. In the central part of the amphitheatre the remains of the plan of a Visigoth basilica are preserved (6th century) as well as those of a Romanesque-Gothic church from the 12th century.



Also, there are a lot of places considered natural heritage in Spain. A very good example is Cabrera Archipelago Maritime-Terrestrial National Park. It's a restricted cruising destination. There are many rare species that you can't find anywhere else in the Balearic Islands.



The last natural heritage from Spain we are going to talk about in this article is the Congost de Montrebei. It is located in Lleida and is considered one of the most stunning and not-known places in Catalonia.

## CONCLUSION

IN CONCLUSION, WE MUST BE CAREFUL ABOUT OUR HERITAGE BECAUSE IT'S WHAT MAKES OUR COUNTRIES UNIQUE.



# PRESERVING THE HISTORICAL AND NATURAL HERITAGE OF OUR COUNTRY

The issue of whether old buildings should be demolished and replaced has long been a controversial issue. Historical monuments of any country reflect the history of the country, and that is why the government of every country try their best to save their monuments from any kinds of damage.

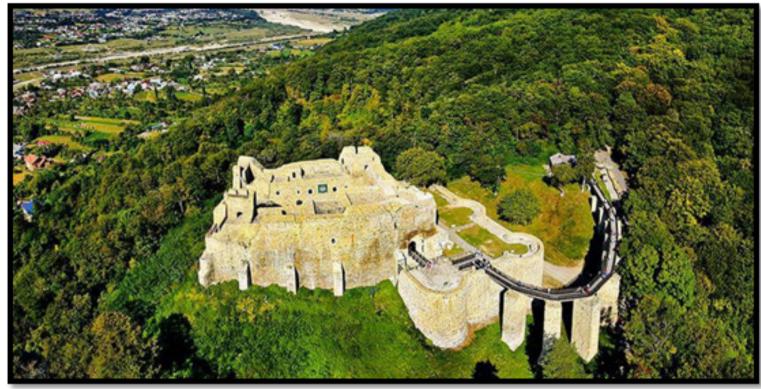
Some people think that old, historic buildings are not needed in any city and they should be destroyed and replaced with modern ones. However, other people believe that historic buildings must be preserved in order to know and remember our past. In our opinion, historical buildings and the natural heritage should be restored and preserved.

Heritage is what our ancestors have preserved, created and left as a legacy to their descendants, to remind us of them and their lives or to occupy a place in history. The time that has elapsed since the creation of an object or from the moment an event took place is very important because it influences the way we perceive things. The passage of time provides the perspective needed to give value to an object or a place. Therefore, we must also give importance to our past and make place for it in our lives.

First of all, by preserving historical buildings and natural heritage, we pass our history to our future generations. We think that our children should know their history, learn from it and respect it. People need to know their traditions and customs, which are priceless and irreplaceable. Our history is our knowledge and power.

In our point of view, we need to preserve and restore historical buildings, especially the natural heritage of our countries. For instance, The Voronet Monastery is one of the most well-known and apreciated monastery from Romania, on the strength of the famous Voronet Blue, which is an unique shade of blue. Due to age, this shade faded away, but our citizens restored it in 2019 and currently, everyone is preserving it.

Another 2 examples that come to our minds are the Corvin Castle and the Seat Fortress of Suceava, which are 2 of the many precious historical



**Seat Fortress of Suceava** 

monuments. In 2019, the roof of the Corvin Castle was restored because it had a fissure, which could've put the visitors in danger. Also, in 2015, Romanian workers decided to restore the famous Seat Fortress of Suceava, dating from our fearless voivode, Stephen the Great.

In present, the Romanian people are taking care of these 3 cherished monuments. We think that by destroying historical buildings and the natural heritage and replacing them with common, industrial ones, we show our disrespect to our forefathers and their traditions.

Secondly, by preserving historical buildings, a city can attract many travelers. By welcoming tourists, a city can get many benefits including money, which can be spent on preserving historical buildings as well as on improving roads and facilities. Some of the most attractive historical buildings from Romania are the Peles Castle, the Bran Castle, The Memorial to the Victims of Communism and the Resistance, the Black Church and many more. Each one of these is preserved and cherished, especially by our foreign visitors.

Everyone should come forward for the preservation of historical monuments in the country. The monuments belong to our country, and it is our responsibility to protect it, invest intelligently in it



**Voronet Monastery** 



**Corvin Castle** 

and to make it known.

To sum up, we believe that preserving old, historical buildings and the natural heritage of our

countries can bring only benefits for the city, happiness for the citizens and also, most importantly, it can restore faith in humanity.



#### TARANTO AND ITS PALACES

#### Made by Antonio Cusano, Roberto Capuano, Marco Stasi, Antonio Laterza IISS Augusto Righi Taranto

The historic center of Taranto is an island located between the "Mar Grande" (Big Sea) and the "Mar Piccolo" (Small Sea) connected to the mainland by two bridges: the "Ponte di Pietra" (stone bridge) to the north which connects it to the industrial district and the "Ponte Girevole" (swing bridge) to the south which connects it to the "Borgo" (the new city), the commercial and liveliest area of the city. The island is a concentration of history, beauty, but unfortunately in the past it was neglected for several years

This has caused the progressive decay of the most important and historical part of the ancient city, with buildings subject to collapse, untreated monuments and the absence of commercial activities.

All factors that led to the abandonment of the island by many of its inhabitants: once more than thirty thousand people lived there, now there are only two thousand, mostly fishermen and mussel farmers.

Strolling through the narrow streets of the old city, you will come across buildings that hint at their illustrious past.

#### PALAZZO GALEOTA

This palace, built in 1728, is an expression of Neapolitan architecture and home to university and municipal offices: it is one of the most elegant in the historic center.

#### PALAZZO D'AYALA VALVA

It is one of the most prestigious and impressive buildings of the Taranto aristocracy and consists of six levels: three in height and three underground. After all, there is also an underground Taranto, made up of hypogea and hidden passages.

#### **PALAZZO AMATI**

This famous palace overlooks the Great Sea but the elegant main door, with typically eighteenth-century lines and motifs, is on the opposite side.



The old city



Palazzo Galeota



Palazzo Amati



Palazzo d'Ayala Valva



Palazzo Pantaleo

It was built through a complex work of incorporating pre-existing buildings, as in fact almost all the aristocratic residential buildings of the 1700s. After various alterations in 1899 Palazzo Amati was used as the first public elementary school in the city.

The façade of the sea side was also modified according to the typical taste of turn-of-the-century architecture

#### PALAZZO PANTALEO

It is one of the few remaining intact eighteenth-century buildings in the Old Town, located in the area where the ancient gate used to be.

This palace has a facade with wrought iron balconies overlooking the Great Sea.

In recent years, an ambitious project has been carried out by the Municipality of Taranto, which aims at social housing and urban regeneration for the revitalization of the heart of this Historical area of Taranto.

The main objective is the recovery, redevelopment and enhancement of the Old City, so that a broad regeneration process can be initiated in this historical part of the city which has undergone a drastic depopulation over time, and therefore has a widespread state of abandonment and degradation the first step has been the university presence and the resumption of tourism with related economic and accommodation activities.

The social housing project will make it possible to redevelop a very important area of the old city, starting in any case from the idea that not only physical redevelopment actions are necessary, but rather the attractiveness of this area steps also from the availability of services, from job opportunities, from opportunities for meeting and aggregation.

The role and consideration of the University is important, given that the privileged target of the housing offer linked to the project is made up of students.

Parallel to the project for the housing redevelopment of the Old Town, the recovery of some of the historic buildings is planned such as *Palazzo Troilo*, which will become



**Palazzo Troilo** 



**Palazzo Carducci** 

a pole of art and culture, with large exhibition halls, a literary café and a bookshop, a well-equipped coworking and smart business incubator, a terrace-museum with bioclimatic greenhouses overlooking the Mar Piccolo.

The intervention on *Palazzo Carducci* will be more substantial, involving the complete restoration of the exterior and interior rooms, preserving the decorations and transforming the property into an eighteenth-century house-museum.

The palace, which has an area of about 900 square meters, was built in the mid-17th century. There have been many changes made to the building by far. The current facade was rebuilt in 700. At the end of the last century, the access to the main floor was also transformed into an Art Nouveau style. Palazzo Carducci - Artenisio encloses a reception hall, decorated with medallions with the grotesques of Fracanzano

Finally, the building in Vicolo Novelune will be recovered and transformed into a university residence.

Another important project is the redevelopment of the "Palazzo degli

Uffici", better known as Palazzo Archita, which is one of the most prestigious buildings in the new city.

Its construction began in the eighteenth century to fulfill the function of an orphanage and house the poor children of the city and the military orphans, by order of a Royal Decree of Ferdinand IV of Bourbon in 1787.

Since 28 June 1896, the date of its inauguration, the building has housed the Court of Taranto, the Nautical



**Palazzo Archita** 



School, the Meteorological and Seismic Observatory, the Institute for the History and Archeology of Magna Graecia and several schools, including the High School "Archita".

The quadrangular shape of the building influenced the master plan as regards the road network, while the architectural style was used as a model by other buildings in the Borgo Nuovo of the city.

*Palazzo Archita* will become a major urban attraction capable of producing a significant impact in economic, cultural and tourist terms through the multipurpose intended use destinations.

The extensive renovation of this historic building will focus on the integration of various strategic functions at the service of citizens. The ground floor will in fact be used as a new commercial hub, through the enhancement of the internal courtyards and the Monumental gallery that connects Piazza Archita to Piazza della Vittoria.

The upper floors will house:

1) the new Municipal Art Gallery and equipped Exhibition Halls for events and temporary exhibitions in connection with the MarTa;

- 2) the classical high school Archita which will be part of the rooms that historically have hosted it;
- 3) facilities and spaces for teaching and research for the University of Taranto;
- 4) public and private offices (collective hubs, meeting rooms, equipped multifunctional rooms);
  - 5) a large conference room /

auditorium in the splendid hall of the former "Court of Appeal".

Thanks to these important actions of preserving our local historical Heritage, Taranto will offers to tourists a complete insight into the glorious past of our city long with its amazing natural beauties



### FORTES LYCEUM

#### TAKING CARE OF HERITAGE

# Made by Fortes Lyceum Gorinchem the Netherlands

In the Netherlands there are national monuments, municipal monuments and provincial monuments. There are protected city and village views and European and World Heritage sites. In addition, some professions and traditions are intangible cultural heritage. The government ensures that this is properly taken care of.

### SUBSIDY FOR INTANGIBLE HERITAGE

€ 1 million per year will be made available to preserve and develop intangible heritage. **Initiatives** for intangible heritage can apply for a subsidy from February. First of all, organizations such as militia companies and guilds that keep heritage alive. In addition, collaborations between old masters in crafts and new makers are eligible. For example, the Staphorster dot work used by fashion designer Walter van Beirendonck. Finally, the subsidy is intended for contemporary heritage in an urban context, such as graffiti, summer carnival or Keti Koti.

#### **HERITAGE COUNTS**

During this cabinet term, the cabinet will invest € 325 million extra in heritage to, among other things:

- preserve the heritage for current and future generations;
- position the heritage in the living environment:
- to draw attention to the importance of heritage for society.

This is stated in the policy letter Heritage counts. The Minister of Education, Culture and Science sent the policy letter to the House of Representatives in June 2018. The Minister of Education, Culture and Science wrote this letter as an elaboration of the coalition agreement. For the letter, the ministry used the knowledge of many organizations. For example, the Council of Culture and the Council for the Living Environment









gave advice.

National monuments are built or constructed objects or archaeological sites that must be preserved. For example, for their beauty, cultural-historical value or scientific significance. The Netherlands has approximately 63,000 national monuments. From eighteenth-century border markers to Noordeinde Palace

in The Hague.

**March 2021** 

The Cultural Heritage Agency of the Netherlands (RCE) designates national monuments. The RCE does this on behalf of the Minister of Education, Culture and Science (OCW). The RCE uses designation programs for this. These programs focus on a specific period or category of objects or locations. For example, the reconstruction period (1959-1965) or the construction of the New Dutch Waterline.

The Central Government Real Estate Agency manages the monuments owned by the central government. Such as the Ridderzaal in The Hague and the Rijksmuseum in Amsterdam.

Some cityscapes and village views



**Protected cityscapes and village views** 

heritage regulation for this. Only the provinces of North Holland and Drenthe have provincial monuments. For example the Defense Line of Amsterdam. On the basis of a monument list, provinces can make decisions about granting subsidies.

Provincial support centers for heritage

Each province has a provincial support center for historic preservation and archeology. This support center offers support to municipalities in their monument policy.

#### **MUNICIPAL MONUMENTS**

Municipalities can protect cultural heritage with a municipal heritage ordinance. For example, buildings that are important in the history of • airplanes.

Street organs can also be mobile heritage. The Heritage Monitor website has more information about mobile heritage.

### INTANGIBLE CULTURAL HERITAGE

Intangible cultural heritage is intangible customs, traditions, rituals, crafts or customs that have been around for a long time. They must be passed on to subsequent generations. The National Inventory of Intangible Cultural Heritage contains valuable Dutch traditions. For example, the Sinterklaas and King's Day, but also the Nijmegen Four Days Marches and the Fruit Parade Tiel.

The Netherlands Center for Popular Culture and Intangible Heritage



in the Netherlands are protected. They are designated for their:

- beauty;
- mutual spatial or structural cohesion (the entirety of streets and buildings, such as the Vreewijk garden village in Rotterdam);
- scientific or cultural-historical value.

Municipalities must ensure that the historic character and structure of these areas are preserved. For example, by recording its protection in the zoning plan. Not all buildings within protected city and village views need to be a monument.

The Ministries of Education, Culture and Science and Infrastructure and Water Management jointly designate protected city and village views. Many historic centers are protected town or village views. For example, the center of The Hague and the city center of Groningen

#### **PROVINCIAL MONUMENTS**

Provincial monuments are objects or archaeological sites that are on the provincial monument list. The province protects these monuments. The province uses a provincial a village, but also archaeological sites, parks or other green structures. For example, green elements in an area, such as rows of trees, shrubs or bushes. This option is stated in the Heritage Act.

Mobile heritage

Mobile heritage is heritage that moves. This mainly concerns historical means of transport such as:

- ships;
- cars;
- trains or locomotives;
- buses;
- mopeds;

compiles the National Inventory of Intangible Cultural Heritage. A selection from the list is proposed for inclusion on the UNESCO Intangible Cultural Heritage List. In 2017, the Dutch craft of miller was added to the list.

#### **CONSERVATION SUPERVISION**

Municipalities supervise the handling of:

- national monuments;
- municipal and provincial monuments;
- protected cityscapes and village views.

## FORTES LYCEUM

Made by
Fortes Lyceum Gorinchem
the Netherlands

HOW POLICYMAKERS,
NATURE MANAGERS,
WATER BOARDS
AND FARMERS CAN
ALL CONTRIBUTE
TO CONSERVE AND
PROTECT ENDANGERED
WILD TREES AND
SHRUBS.

The indigenous, wild trees and shrubs in the Netherlands are doing badly. This has major consequences for the biodiversity and climate resilience of our forests. In the Netherlands, the latest populations of wild trees and shrubs are not well protected. They disappear and this is hardly noticed. The share of wild trees and shrubs in the total forest area and landscape features consisting of trees and shrubs is estimated to be less than 3%. In addition, half of the native tree and shrub species are rare and endangered in their survival. They can still be found in old hedgerows and stream banks or old forest edges. However, these old landscape elements are under pressure, and so the last wild populations of "primeval trees" and shrubs are disappearing along with the old cultivated landscape. Extra care is also required in nature reserves for the management and preservation of these trees and shrubs.

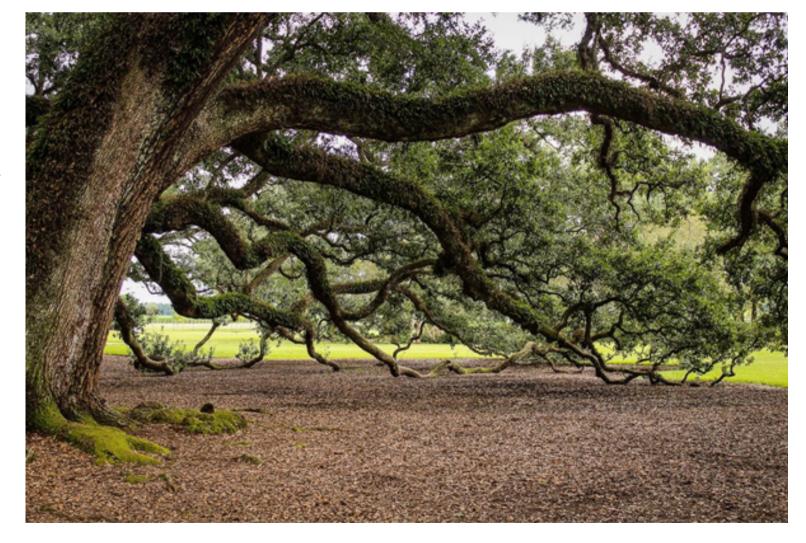
#### **SOURCE OF BIODIVERSITY**

One oak is not the other. A tree does not stand alone, but is part of a food web with insects, birds, fungi, mushrooms and many more species. This food web has developed over thousands of years in native wild trees. As a result, these "primeval

#### PRESERVATION OF GREEN HERITAGE



**Ancient cultivated landscape and "primeval trees" endangered** 



trees" harbor a large and original biodiversity.

The genetic variation in these trees is also greater, making them more resistant to climate change than regular planting material that is genetically homogeneous. Determining whether a tree is

**March 2021** 

indeed part of the wild population with these subtle ecological relationships requires an expert eye. The disappearance of wild trees and shrubs would seriously impoverish our (forest) ecosystems.

#### **MEASURES**

It is quite possible to protect

these valuable trees and shrubs. The advisory plan contains many concrete measures that administrators, municipalities, water boards, farmers and policymakers can use to help preserve this important natural and cultural-historical heritage.



Made by
Breahnă Vlad- Iulian
"MIRON COSTIN" BACAU
GIMNAZIAL SCHOOL

#### THE PREFECTURE OF BACAU CITY

Located in the Moldavia area, Bacau County is bordered by the Neamt, Vaslui, Vrancea, Covasna and Harghita counties. The western side of the county includes a part of the Eastern Carpathians.

.P. Radianu in the "Agricultural and Economic Study" in 1889, he talked about Bacau as a "fair located in an island of the Bistrita River, famous for its abundance of apples and other fruits", in the summer with a lot of collapse and in the winter with a lot of blooms. The houses of the owners were surrounded by courtyards and gardens where blooms, ornamental trees and fruitful trees flourished. In 1889 king Carol I and Prince Ferdinand stayed seven days in Bacau, and later also the lady Maria, from where the village of Bacău was named after the princess. The Cremenea hut was bordered in the northeast by Bistrita Park (24 hectares), founded by Mihai Văgănescu in 1930.

### THE RED CASTLE FROM HEMEIUS

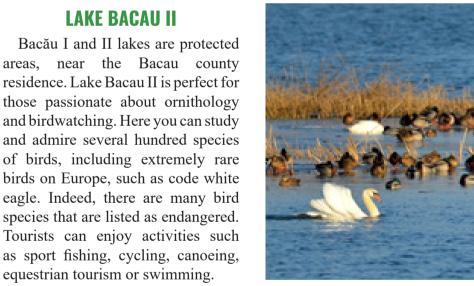
How many times have you seen the movie "Wonderful Grove"? Well, the dendrological park that surrounds the Red Castle is Lizuca and Patrocle's grove. The park is the second largest in Romania and shelters tree species such as the sequoia tree, originating in the Sierra Nevada Mountains in the USA. The park was set up in 1880 by a German landscape artist. Red Castle gets its name from the red brick from which it's built. Unfortunately, although he is on the list of historical monuments in the country, he is in a very precarious state. For this reason, it is not open for visits. The castle building has been decommissioned for nearly 20 years

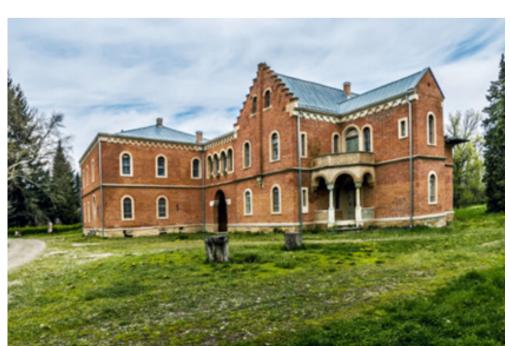
#### **DISCOVERY BACĂU**













#### THE COAT

The coat of Bacău has Mother Precista in the lower part, the city's protector, and in the upper part are the deer and firs, the first heraldic symbols of Bacau.

At the bottom the color selected is red. The red color is specific to Moldovian stems and the blue, which is found in the upper area, is the color immediately following its significance according to the color code and the heraldic rules.

The two areas are separated by a girdle representing the constructive vocation of Bacau, it's aspirations for the future.

The seven towers in the upper part symbolize the fact that Bacau is the county seat of the city



#### **BACĂU'S MAP**

Bacău, the county seat of the same name, is located in the north-east of the country, in the central-western part of Moldova, just 9.6 km upstream of the confluence of Siret-Bistrita.

The town occupies an area of 4186.23 ha.

#### MALTA S.E.C.E.A





#### OUR VOICE IN THE CAMPAIGN FOR SUSTAINABLE DEVELOPMENT

The articles in our magazine address the priorities for Sustainable Development which lie at the very core of the Agenda 2030 which was approved in September 2015 by the Governments of the 193 United Nations member countries...

We learnt about our Countries initiatives for Climate,, Energy,,

Biodiversity and explored how Economy, Research and innovation can drive forward sustainable development.

Studying the goals is part of a broader international approach to learning we want to enhance in our Erasmus project. S-E-C-E.A

For our schools it represented

a positive influence on our ethos and relationship with the local community. It was also an opportunity of mainstreaming sustainable issues into the school curriculum using innovative, participatory approaches through which to look at the most pressing global challenges.

The Agenda 2030 is not only

for Governments but it should be really inclusive and get everyone on board.. This magazine is our voice in the campaign for Global Goals Development Action.

The project coordinators: Maria Luisa Cusumano, Liliana Adocheti, Rita Von Hebel, Rosanne Galea, Margarite Pastor



#### **OBJECTIVES**



- EXAMINE MAJOR ENVIRONMENTAL ISSUES FROM LOCAL, NATIONAL, REGIONAL AND INTERNATIONAL POINTS OF VIEW SO THAT STUDENTS RECEIVE INSIGHTS INTO ENVIRONMENTAL CONDITIONS IN OTHER GEOGRAPHICAL AREAS
- FOCUS ON CURRENT AND POTENTIAL ENVIRONMENTAL SITUATIONS WHILE TAKING INTO ACCOUNT THE HISTORICAL PERSPECTIVE.
- PROMOTE THE VALUE AND NECESSITY OF LOCAL, NATIONAL AND INTERNATIONAL COOPERATION IN THE PREVENTION AND SOLUTION OF ENVIRONMENTAL PROBLEMS.
- INVESTIGATE THE ASPECTS OF SUSTAINABILITY IN DIFFERENT CONTEXTS.
- DEMONSTRATE HOW THE ASPECTS OF SUSTAINABILITY APPLY ACROSS DIFFERENT CONTEXTS, USING A RANGE OF CASE STUDIES.
- EXPLAINS THE POSITIVE AND NEGATIVE INTERRELATIONSHIPS BETWEEN THE ASPECTS OF SUSTAINABILITY WITHIN DIFFERENT CONTEXTS.
- EXPLICITLY CONSIDER ENVIRONMENTAL ASPECTS IN PLANS FOR DEVELOPMENT AND GROWTH



#### SCHOOL PARTNERSHIP FOR EXCHANGES OF PUPILS

Erasmus+ K229 "Sustain European Culture and Environment in an App" (S.E.C.E.A.)

2018-1-IT02-KA229-048136

THE PROJECT



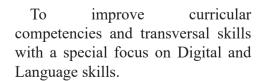
#### INS ANDREU NIN EL VENDRELL SPAIN

Virtual meeting

"Top Tips to sustain Europe with sustainable language learning"

22nd-24th March 2021

#### **OBJECTIVES**



To improve educational outcomes, addressing English learning within an integrated approach, encompassing key competence

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#### **ACTIVITIES**

POETRY WORKSHOP - LANGUAGE QUIZZES AND GAMES - POPULAR CULTURE VIDEOS - WORKSHOP HOW TO MAKE A POSTER - WORKSHOP WRITING ARTICLES FOR THE "YOUTH FOR SUSTAINABILITY" MAGAZINE