Erasmus+

OGET

Our Green European Town

Our green european town

Co-funded by the
Erasmus+ Programme
of the European Union

PROLIFERANA MATEMATICHESKA "KONSTANTIN VELICHKOW"

BULGARIA

PÄRNU ÜHISGÜMNAASIUM

ESTONIA

LICÉE "MARCH BLOCH"

FRANCE

LICEO SCIENTIFICO E LINGUISTICO "PRINCIPE UMBERTO DI SAVOIA"

ITALY

ESCUELA SECUNDARIA DE LOULE'- PORTUGAL

IES BIAR -SPAIN

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OGET
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PROJECT SUMMARY

The project aims at raising students' interest in natural sciences and sustainable environment through promoting environmental awareness and acting for environmental protection. The priority is interdisciplinary integration of several subjects like art, architecture, natural sciences, IT, languages, media, social studies.

All the 6 schools see the need for increased interdisciplinary cooperation between colleagues and would like to exchange ideas and methods internationally. They also want to make their curricula more related to the real life and involve students actively in their studying process.

The project helps to respond to the needs of each school.

Spanish school aims towards the internationalization and is mostly interested in teachers' trainings, in collaborative learning and in implementation of innovative practices.

Bulgarian school would embrace the opportunity to work on different kinds of project (besides IT, Maths) which will allow their students to communicate their own ideas, apply the knowledge they have and develop the skills they will need in labour market.

Italian school's priority is to enhance the school as an active community, open to the territory and able to develop and increase interaction with families and the community, including third sector organizations and businesses.

French school aims to encourage students' implication, work and personal research as well as autonomy, involvement an ambition; to encourage group work, interdisciplinary production, projects.

Portuguese school aims to increase the number of students involved in exchanges and research experiments and regarding to teachers to develop the professional skills and to encourage innovation among its stuff, also to find new motivating practices to reduce students' drop out.

Estonian school aims to find better ways to integrate and teach environmental awareness and digital competences more efficiently. Climate change is a global problem that should be tackled internationally.

Through a project like this, students learn that cooperation between different countries on worldwide problems can be enriching. They develop the feeling of tackling a global problem together. It is urgent that the European community can have arguments to make change at the level of the different countries of the EU by strongly encouraging towns and regions to invest in the ecological transition including using work done by young people.

High school students cannot vote yet but they are aware of the situation and would like the European community to make a difference for their future - for future generations. It is a way for the students to influence decision-makers when they cannot yet express themselves directly in elections. It is the citizens of tomorrow who would like us to take a closer look at the Europe in which they want to live. 2018 is the Year of Cultural Heritage - our project contributes to valuing traditions in architecture in our 6 countries.

Objectives:

1. Raising students' interest in natural sciences, their knowledge in environmental protection, eco- friendly and sustainable architecture;

2. Teaching our students to adopt eco-friendly lifestyles in their everyday life;

3. Raising students' competences in architecture, promoting creativity, critical thinking and developing students' skills in art;

4. Raising students' competences in ICT;

5. Raising students' competences in foreign languages.

Concrete results:

- Increased level of digital competence
- Improved competence in foreign language
- Increased motivation for language learning through better links to practical use of language skills required by the labour market
- Increased sense of initiative and entrepreneurship
- Greater effectiveness of activities for the benefit of local communities
- Greater understanding and responsiveness to social, linguistic and cultural diversity
- More positive attitude towards the European project and the EU values

Better understanding of interconnections between formal, non-formal education and other forms of learning and labour market respectively. The objectives of the project are closely related to its priorities in terms of acquiring and developing relevant skills and key competences in order to enhance employability and active participation in civic and social life. The project aims at fostering critical thinking through involving science in environmental and cultural context and adopting a holistic approach to language learning. Another main goal of the project is supporting the effective use of digital technologies and open pedagogies in education. In response to the challenges of the 21st century the project promotes social, civic and intercultural competences and dialogues, active citizenship critical thinking and media literacy. All the planned activities lead to achievement of 5 objectives mentioned above. Students' interest in natural sciences and their motivation to study sciences will be increased thanks to various extra-curriculum (but still curriculum-related) activities that will take place in every partner school.

The students will profit lectures and workshops given by experts in environment protection which is a great chance for them to dig deeper in the topic and consult professionals. They will have

several opportunities to learn outside of their usual classroom and to participate in educational programs and visits to community gardens and sights of architectural significances.

Calculating personal ecological footprint will be a way to make every participant to think about environment and his or her impact on it.

The photo contest will make the students see in a better and clearer way the environment and its importance around us.

Once the students will have understood the importance of environment and the common need to protect it, they will be ready to learn about environment-friendly lifestyle and to adopt new and eco-friendly habits to their everyday life. The new knowledge will be put in practice instantly - the students will create leaflets and videos with eco- friendly tips, share their new competences with other students.in the school and local community, trying to work as a volunteer in environmental groups, organizing events in school to promote environment-friendly attitudes(exchange of second-hand books, toys, clothes, waste sorting, energy saving, workshops about recycling, planting a tree in the school yard, organizing a bike hike/hike to promote environmentally friendly transport etc.), participating in visits to see how the bio farms and greenhouses function and writing in collaboration of all the 6 partner schools a Charter of Environment-friendly European Citizen that will be presented in European Parliament. Students' competences in architecture will be raised and their skills in art will be developed with the development of their sense of creativity. That will be possible by participating in various art-related activities such as logo contest, eco-house modelling, poster creation. The participation in educational visits and lectures/workshops to learn about (eco) architecture will widen their knowledge and give them ideas how to improve their current urban environment and how to design and build eco-friendly houses. Students' competences in ICT use will be raised and developed during several trainings (photo and video editing, creation of posters and leaflets on web, web-design of buildings) and project activities like working on Twinspace, webpages and eBook. The 2 last ones will help to develop also their teamwork skills. Students competences in foreign languages will be developed and put to test in real life situations: the project will create authentic situations to use a foreign language. We have attached a conclusive table in Annexes.

SCHOOL PARTNERS PRESENTATION

PROLIFERANA MATEMATICHESKA “KONSTANTIN VELICHKOW”

Specialized Secondary School of Mathematics is a public secondary school, one of the leading educational institutions in the region of Pazardzhik. The school has 64 teachers and 739 students aged 11-19. The core subjects are Mathematics, Informatics, Programming, IT, Biology, Chemistry and English. One of the school priorities is creating a nurturing learning environment that motivates students to perform at their best. Our mission is educating future leaders and encouraging them to develop skills which will help them to be successful after they graduate.

Teachers participating in the project:

Ana Rabadzhiyska – *History teacher and project coordinator*

Miroslava Takeva – *English teacher*

Valentina Malinova – *IT and Informatics teacher*

Elena Gidikova – *Art teacher*

Miubera Ademova- *Biology teacher*

Students participating in the project:

Alexandra Nikolova

Iliya Valkov

Ekaterina Vassileva

Bozhidar Kamenski

Kaloyan Punchev

Maria Ivanova

Georgi Shiparov

Anton Ahmedova

Didi Todorova

Ralitsa Kordova

Deyan Azmi

Ivan Valchev

Pavel Vlahov

Yoanna Shishinyova

Petar Todorov

Krisiyan Stoykov

Stoyan Stoykov

Bozhidar Lulchev

Tsvetelina Tasheva

Hristina Vasseva

Violeta Valkova

PÄRNU ÜHISGÜMNASIUUM

Pärnu Coeducational Gymnasium (Pärnu Ühisgümnaasium) was founded in 1861 and is the eldest school in town. The student body of Pärnu Coeducational Gymnasium consists of 377 students, 16-19 years of age and 34 teachers. Students of Pärnu Coeducational Gymnasium can compile their own curriculum based on their interests and competences. It is the only school in town and the whole county and one of the few in Estonia where modular study is applied. Studying here is interesting and varied as our school is a modern and innovative institution which applies the newest principles in education.

Teachers participating in the project:

Liis Raal-Virks – *project manager*

Tiina Saarits – *youth coordinator*

Marika Ristmäe – *art teacher*

Peedu Sula – *philosophy teacher*

Eve Popp – *biology teacher*

Kadri Kõrre – *English teacher*

Kaia Metsaalt – *IT teacher*

LYCÉE “MARC BLOCH”

Marc Bloch high school is a general and technological high school located in the north of Strasbourg. It welcomes students with different social backgrounds from six middle schools around. This creates a really nice social mix. Almost 1,200 students (equal numbers of girls and boys), between the ages of 15-18, prepare their general or technological French Baccalauréat exam in five areas:

- Science and technology of Industry and Sustainable development
- Sciences – Engineering sciences
- Sciences - Biology and natural sciences
- Literature
- Economics and Social sciences

FRENCH TEAM

Standing, left to right: Sofiane, Mohamed, Antoine, Emmelyne, Camille, Camille, Lucie, Julia, Ludovic, Simon, Khnata, Alexandre, Vincent

Sitting, left to right: Amine, Yassine, Julia, Eliott, Florian, Lucas, Antoine, Abourahman

(Are missing in this picture: Assia, Elena, Marion, Michelle and Sarah)

LICEO SCIENTIFICO E LINGUISTICO “PRINCIPE UMBERTO DI SAVOIA”

High school "Principe Umberto di Savoia" offers the possibility to choose between two types of studies, scientific and linguistic, among which there are also Cambridge and Esabac classes.

The priority objectives of the institute are: enhancement of linguistic skills, also through the use of the methodology Content integrated language learning (CLIL); - strengthening of mathematical-logical and scientific skills; development of students' digital skills, with particular regard to computational thinking, critical and conscious use of social networks, media and links with the world of work.

Teachers of Italia team:

Valentino Coco -*Physical education teacher*

Marinella Calabrese – *Math and physics teacher*

Carmelo Greco - *Biology teacher*

Claudia La Ferla - *Italian and Latin teacher*

Maria Teresa Maglia - *English teacher*

Giusi Micale - *Math and physics teacher*

Mario Scibilia - *Biology teacher*

Students of Italian team:

Mirone Federica

Del Monte Matteo

Grimaldi Marika

Santangelo Roberta

Pandino Matilde

Vasta Roberta

Zingale Miriam

Faro Robin

Marchese Francesco

Mastroeni Sofia

Furnari Giorgia

Adamo Gaia

Bongiovanni Angela

Santoro Gabriele

Greco Davide

Alfonsino Chiara

Tirendi Federica

Terranova Giulia

Bruno Marika

Fusari Paolo

Strano Alessandro

Mineo Mario

ESCUELA SECUNDARIA DE LOULE'

ESL is an only secondary school, located in Loulé. Currently 1310 students, aged 14 -19, attend our school, and about 205 adults take after-work courses. The school workforce includes 160 teachers and 45 administrative and operational staff. ESL offers 4 areas of scientific and humanities studies and 14 Vocational Qualification courses in different areas. The school population includes students from all social strata and several nationalities. ESL has several clubs and offices that are intended for the occupation of students in extra school time. One of them is the Environmental Sustainability Office in which students and teachers are involved in projects that aim to increase the environmental awareness and sustainable consumption. The school strongly encourages its staff to develop their scientific and professional skills, to get involved in international exchange projects and sharing of good practices, in order to improve the quality of teaching/learning and promoting educational success.

The teachers of the Portuguese team:

Maria Ermelinda Travia

Maria Fernanda Martins

Júlio Ribeiro

Jaime Travassos and the collaborators: Ana Paula Conde, Gisela Barros, Hélder, Liliana Peralta, Lourenço, Jorge Salgadinho, José António Santos, Luísa Sousa, Maria de Fátima Gonçalves, Sandra Basílio Susana Faustino.

The students of the Portuguese team:

Artur Rey

Beatriz Dzitac

Bernardo Cabrita (first year)

Bernardo Martins

Carlos Peres

Carolina Barbosa

Daniel Boychuk

Edgar Sousa

Francisco do Espírito Santo

Gonçalo Gago, Jéssica Brito (first year)

Jéssica João

Jéssica Rosa

Laura Mogo

Mafalda Guerreiro

Mariana Cavaco

Marlene Silva

Miguel Café

Miguel Donnes

Miguel Reis

Raquel Neto

Safira Marques

Timothy Cartwright

IES BIAR

The High School of Biar is located north of the province of Alicante. In the region of Valencia in Spain. It is located in a privileged natural enclave, close to the mountains. We have 350 students and 40 teachers. Students come from four different villages: Camp de Mirra, Beneixama, Canyada y Biar. The studies offered are Compulsory Secondary Education, A level, and basic Vocational Training. It is a very quiet school where families are very involved.

Teachers of the Spanish team:

Àlex Amorós
Inés Amorós
Laura Barberà
Laura Berbegal
Joan Antoni Cerdà,
Jesús Meca
Jaume Hernández
Mª José Aroca
Teresa Menor
Enric Morató
Gemma Llorca
David Molina
Luis Antón
Justa Cortés
Victor Fajardo
Rosa Guill

Students of the Spanish team:

Carlos Luna

Yasmin Requena

Gracia Alemany

Gloria Coloma

Elena Domene

Laura Sanchis

Irene Diaz

Cintia Fuster

Guillermo Payá

Jesús Ugeda

Paula Luna

Alvaro Campos

Cristina Marco

Marta Salguero

Gerard García

Andrea Francés

Laura Juan

Azhara Francés

Meritxell Alemany

Mercedes Samper

Alba Satorre

Angela Gandia

Judith Bataller

Guillem Bellod.

LTTA IN ALL COUNTRIES

LTTA IN PORTUGAL

In January 2019 the first of the seven mobilities of the Erasmus + KA229 project "Our Green European Town" took place in Loulè, Portugal. Specifically, the secondary school of Loulé which did a great job as a host. Teachers and students had the opportunity to meet teams from the other partner countries. Our students participated in activities related to climate change, carbon footprint, beach cleaning while they practiced English and learned about aspects of Portuguese culture.

LTTA IN ESTONIA

The second mobility of the project was in Parnu (Estonia). The Parnü Ühisgümnaasium school was in charge of organizing the week from 23 to 28 March in which we visited the Rocca Mare open-air museum in Tallinn, the museum of architecture, as well as the route of buildings by the local architect Olev Simaii in which we could appreciate the characteristics of the functionalist style. Several artistic workshops were also held by the Estonian professors and also some environmental conferences. We were delighted to be there and meet people from the other five countries.

LTTA IN BULGARIA

The third mobility was held in Pazardzhik (Bulgaria), from 6th to 10th of May.

We visited the Old Town of Plovdiv, which is an architectural and historical reserve and saw ancient traditional buildings typical of Bulgaria. In addition, we attended different talks about climate change. We learned how to reduce the amount of rubbish we produce in a meeting with Keith Kelly, one of the co-authors of an international school exchange programme on waste wwww.trashedworld.com. In another lecture we were introduced to the biodiversity in Pazardzhik region, by Dragomir Dobrev, who is part of the team of the Bulgarian Society for the protection of birds. (http://bspb.org/en/index.html).

We visited Gimel Bio-greenhouse where students learned about the production of organic vegetables. In Nanovski nursery students became familiar with landscaping trends in this area. At the Secondary school in Pazardzhik, students did a variety of activities related to our project like presenting team flags, filling in investigation sheets with facts and figures about waste collection from each country. Students also participated in an art workshop using recycled materials and played ecological games.

LTTA IN ITALY

The fourth mobility of the project was in Catania (Sicily-Italy). From October 5 to 12.

When a moment of your life simply passes and nothing changes in you, it just turns out to be a simple life experience, but when your beliefs can be changed as a result of it, that becomes a real meaningful experience, and this is what this week in Catania has been, an enriching experience. This Erasmus + project is a unique possibility to get to know other cultures, other languages, other cities, and work together with four different countries in search for greater awareness of caring for the environment. In this mobility, we have learned an important part of Italian culture, which is fantastic and surprising.

While being there, apart from getting to know the spectacular city of Catania, and his fascinating, threatening and steaming Etna volcano, we attended very interesting talks about caring for the environment, including our students' speech about sustainable mobility. A fantastic experience for teachers and students, all grateful to be part of this European project.

LTTA IN FRANCE

The fifth mobility of this project was in Strasbourg (France) from 24 to 29 November. Strasbourg is a symbol for an Erasmus project, since it is the official seat of the European Parliament, where many of the decisions that affect us as European citizens are taken. During this mobility we have followed an intense program focused mainly on issues about sustainable architecture, one of the objectives of our OGET project. We have learned to build a wall with natural materials and we participated in a debate about the importance of inclusion criteria in the design of friendlier cities and we have even put these knowledges into practice by making our own proposal for a more sustainable city. In addition, we have experienced these ideas through concrete examples of this urban design by visiting sustainable buildings in Strasbourg and walking through the streets of the eco-district of Freiburg (Germany). Our visit to the European Parliament coincided with the declaration of Climate Emergency, therefore we had the opportunity to attend a live debate on this issue. And there has also been time for fun. As in all Erasmus experiences, in Strasbourg we have met many colleagues from other nationalities and cultures, we have tried (and even cooked!) traditional French dishes and we have taken home a lot of intense and interesting experiences. These kinds of experiences help us build Europe.

Our climate ambassadors and project dissemination

BULGARIA

Project dissemination in our school an in Hristo Smirneski Primary School

ESTONIA

Some of Estonian climate ambassadors:Ander Aarde, Anna Maria Hermann, Hellika Tornik , Mirjam Holtsmann, Britt Koger, Kelli Järvoja , Ülle Järvoja and Cätlin Sutt

In October 2019, 2 cllimate ambassadors of the Estonian team- Kelly and Ülle visited their previous basic school and gave there a lecture about envorent-friendly lifestyle

FRANCE

The French Climate Ambassadors, from left to right : Alexandre Loureiro-Tagaio, Lucas Morlet, Julia Wittmer, Camille Trioux, Elena Chatin, Marion Singer, Emmelyne Cantin.

Lucas in his former primary school presenting the project.

ITALY

The Italian Climate Ambassadors, from left to right:

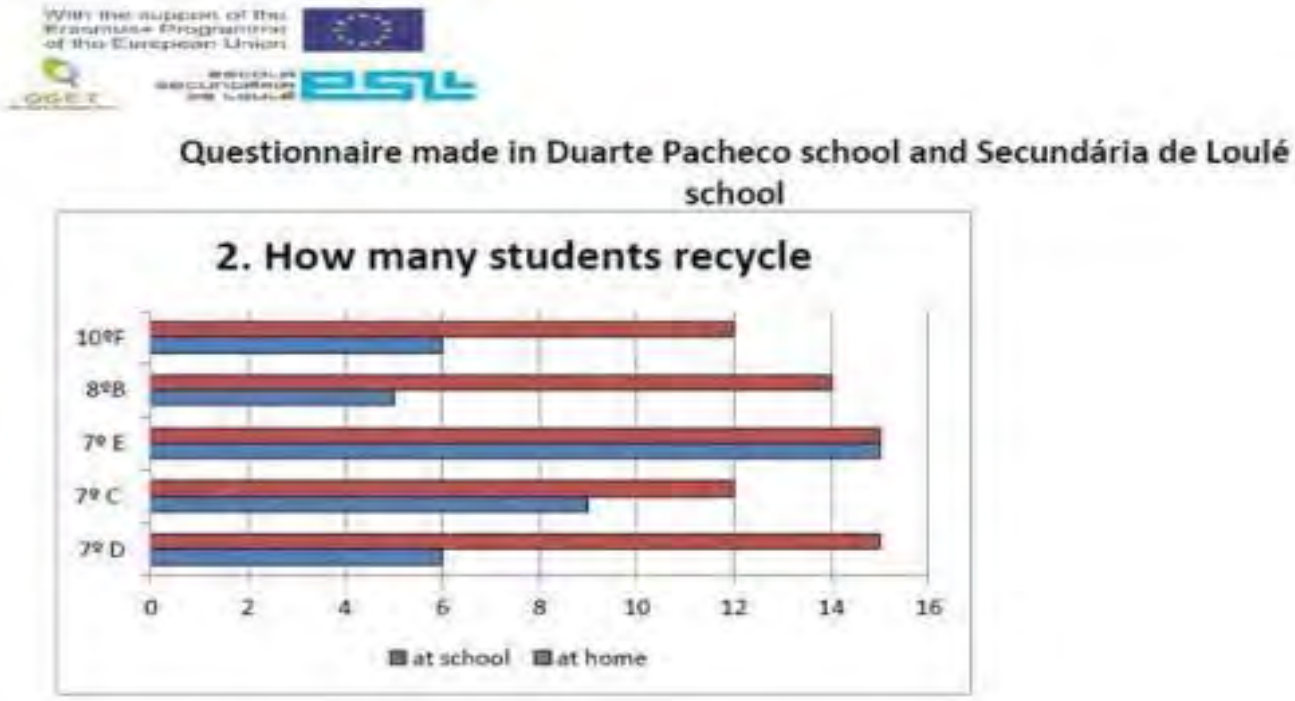
Francesco Marchese, Mirone Federica, Roberta Santangelo, Matilde Pandino, Miriam Zingale, Roberta Vasta, Giorgio Cardone.

December 2019 Matilde Pandino and Davide Greco disseminates the project at the school "Vittorino da Feltre" - Catania

PORTUGAL

The Portuguese Climate Ambassadors: Miguel Donnes, Daniel Boychuc, Arthur Rey, Timothy Cartwright, Carlos Oeres

Esl ambassadors: esl students interviewed students from other schools about attitudes and behaviors to have in protecting the environment. they monitored eco attitudes with a view to changing daily behaviors.



SPAIN

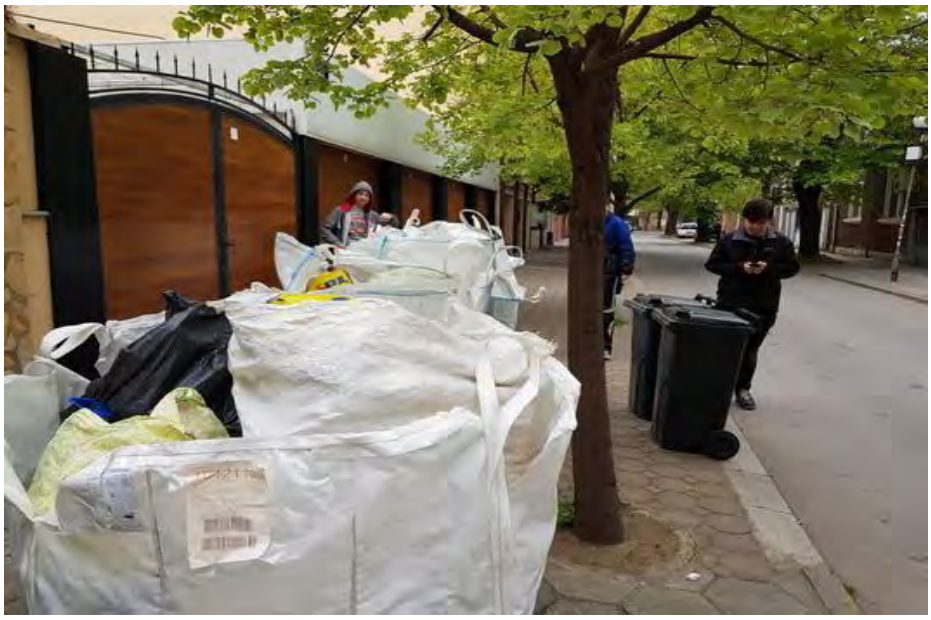
The Spanish Climate Ambassadors: Gracia Alemany, Yassin Requena, Carlos Luna, Irene Díez, Gloria Coloma, Paula Luna, Guillermo Payà, Jesús Ugeda, Alvaro Campos, Judith Bataller, Ángela Gandia, Meritxell Alemany, Mercedes Samper, Marta Salguero, Cintia Fuster, Cristina Marcos, Andrea Frances, Alba Satorres, Laura Juan.

Some our Spanish Climate Ambassadors explain good actions to better environmentally to the Primary students in Biar.

Working as a volunteer

BULGARIA

The students from Konstantin Velichkov Profiled Mathematical Secondary School particpated in a campaign called Recycling challenge organized by Ecopack Bulgaria and the Pazardzhik municipality. Students from two classes 7b and 9a collected and submitted for recycling 163 kg of plastic in total.



ESTONIA

The students and teachers of Pärnu Ühisgümnaasium took part of the Let's Do It! Day on the 4th of May 2019. They cleaned the beach of Pärnu and collected 40 kg of trash from the beach!

On the 20th of September 2019, The Estonian school Pärnu Ühisgümnaasium also took part in World Clean Up day. 87 students and 2 teachers came to clean up the old trailway station in Pärnu.

FRANCE

On Saturday 16th November 2019, the enviromental volunteer association called "Alsace Nature", organised a cleaning afternoon of "Berges de l'Ill" in the district "Fronts de Neudorf" of Strasbourg which is a district along the channel and river "Ill".

Some students and teachers of Marc Bloch high school took part to the cleaning of the riverbanks. They join many volunteers of Strasbourg.

Few divers from an association remove many rubbish from the channel.

ITALY

Our school participated on the 23 June 2019 at the day of waste collection at the city park “Madre Teresa di Calcutta”. The program provided a series of activities capable of soliciting the cultural and environmental sensitivity of large and small recovery of the resources that a green area can offer us. Practical lessons on the cultivation of your own vegetable garden, to teaching on the care of domestic animals for children and adults

On Saturday 3rd August 2019, a local environmental association named “Jala”, organized a litter and garbage collecting day, in order of cleaning the shore of Acicastello, a village near Catania, famous for its medieval castle and for “Faraglioni” , massive stones that legend says were thrown by Cyclope to Ulysses during his travel back to Itaca.

PORTUGAL

Students and teachers, environmental volunteering participated on the 26th September 2018 and 17 January 2019 in cleaning the Quarteira beach.

Students clean the school

SPAIN

On Friday, June 7th, the local environmental volunteer association "El Reconco" gave a talk at the institute. This talk inspired us to carry out our own volunteering action. Taking advantage of the fact that the association had moved to our center, we asked them for advice on which actions were the most necessary and urgent and they suggested cleaning the nearby forest to prevent some materials (especially glass) from causing a fire.

On June 14th, we formed 10 teams of 15 people with gloves and garbage bags. Each group was in charge of an area and we were very surprised of the amount of garbage that we had found. After the collection, we separated the garbage that could be recycled and threw it in the corresponding containers.

Our leaflets to promote environment-friendly life-style

BULGARIA

ESTONIA

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Made by Johanna Roos

WHY SHOULD WE BE ECO-FRIENDLY?

A throw-away society is not sustainable – we've got one small planet. We're bursting at the seams, and we create more and more rubbish by using disposable items.

– EcoExpert Clare Delaney

LETS BE GREEN TOGETHER!

10 TIPS ON HOW TO BE MORE ECO-FRIENDLY

- Take your own bag with you when you go shopping. Shove a fabric bag in your pocket or use previously bought plastic bag!
- Consume local products! Prefer local food when looking for food and other goods!
- Use public transport!
- Save water! If you soap your body or brush your teeth, turn the water off!
- Make your own miniature garden! Grow greens on the window or vegetables on the balcony!
- Eat less meat! Or consume organic meat!
- Prefer a recyclable water bottle and coffee cup!
- Avoid excessively packed goods!
- Save electricity! When you leave the room, shut the light! Prefer economical household appliances and energy saving bulbs!
- Use Renewable Energy! E.g try solar cells!


"Consuming less means throwing away less, while reusing things actually helps to save the planet as well as the pennies."
-Sheherazade Goldsmith
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Erasmus+ project "Our Green European Town"
Pärnu coeducational school
Author: Kaileen Umal
Co-funded by the Erasmus+ Programme of the European Union


"It is our collective and individual responsibility ... to preserve and tend to the world in which we all live." —Dalai Lama
How to be environmentally friendly
SWITCH TO REUSABLE SHOPPING BAG
1
SHOP LOCALLY!
Go and support local farmers who have a much lower carbon footprint than larger companies!
2
USE PUBLIC TRANSPORT
3
DON'T WASTE WATER!
While brushing your teeth- turn the water off
4
GROW OUR OWN FOOD!
It is great to have a little supply of herbs to take from your own garden!
5
EAT LESS MEAT!
6
PREFER REUSABLE WATERBOTTLES/COFFEE CUPS!
7
BUY YOUR GROCERIES WITHOUT PACKAGE IF YOU CAN!
8
You can always take your own containers to the shop to fill them with nuts or other products.
SAVE ELECTRICITY!
9
When you leave the room, turn off the light!
USE RENEWABLE ENERGY!
10
For example solarbatteries!

ITALY


7) We prefer local products!
8) We don't raise the heater at home!
9) We don't use solar cream!
10) We love our planet!
O.G.E.T
(Our Green European Town)
2018-1-EE01-KA229-047071_4
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Together we can change the world!
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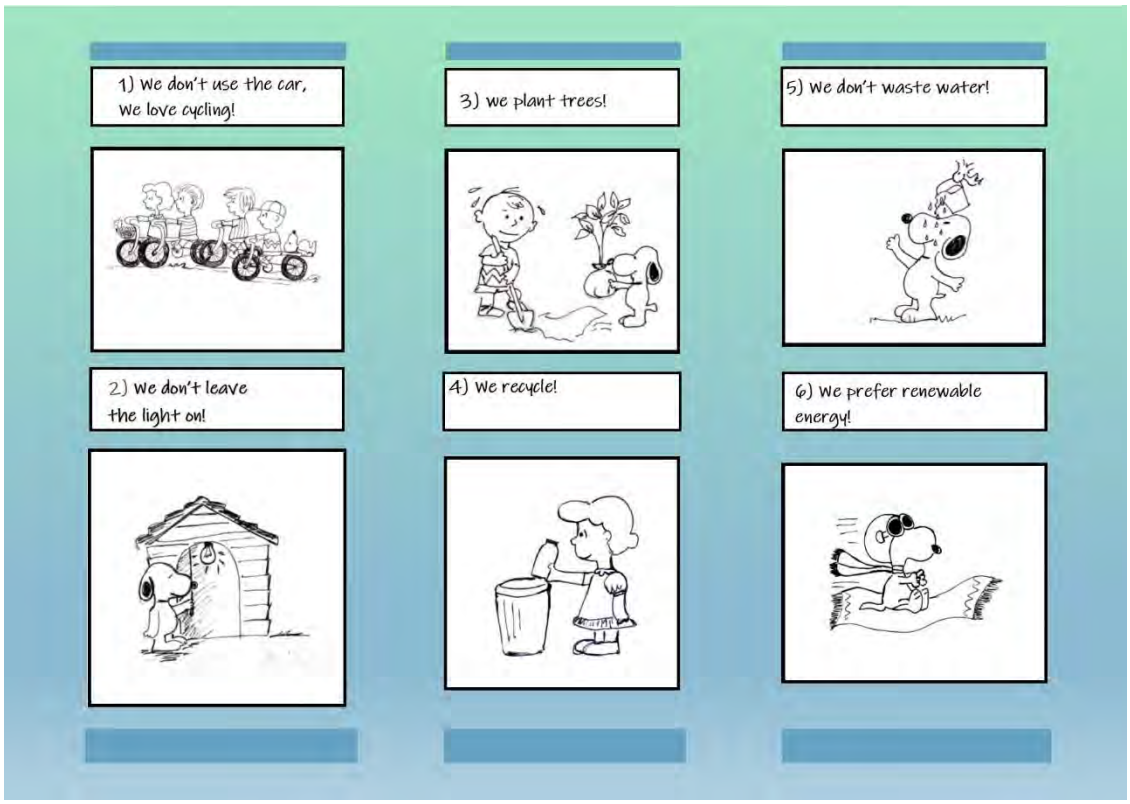
Liceo Scientifico e Linguistico statale "Principe Umberto di Savoia" CATANIA


1) We don't use the car, We love cycling!
2) We don't leave the light on!
3) We plant trees!
4) We recycle!
5) We don't waste water!
6) We prefer renewable energy!

9 tips to consume less plastic

1 

avoid plastic dishes

2 

use canvas bags

3 

buy food without packaging

4 

use reusable water bottles

5 

use steel razors

6 

use glass containers

7 

use solid soaps

8

choose clothes in natural fibers

9 

recycle plastic properly

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Liceo Scientifico e Linguistico statale "Principe Umberto di Savoia" CATANIA

FRANCE


Conseil 7
Cultivez votre propre jardin et plantez des arbres quand vous le pouvez
Tip 7
Grow your own garden and plant trees when you can
Conseil 8
Réduisez votre consommation de viande et mangez bio
BIO
Tip 8
Reduce meat consumption and eat organic food
Conseil 9
Evitez d'acheter des objets dont vous n'avez pas besoin et achetez d'occasion quand vous le pouvez
Tip 9
Avoid buying unnecessary things and buy second-hand when you can
Conseil 10
Soyez un bon exemple et dites à vos amis d'agir comme vous
Tip 10
Be a good model and tell your friends to act like you
Lycée Marc Bloch
Allée Blaise Pascal
67800 Bischheim
France
+33 (0)3 90 20 07 30
www.lycee-marc-bloch.eu
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Comment être éco-responsable ?
How to be eco-friendly?
Co-funded by the Erasmus+ Programme of the European Union


Conseil 1
Eteignez les lumières quand vous n'en avez pas besoin
Tip 1
Turn off the lights when you do not need them
Conseil 3
Evitez de gaspiller l'eau
Tip 3
Do not waste water
Conseil 5
Ne jetez pas vos déchets par terre
Tip 5
Do not throw any waste on the ground
Conseil 2
Faites du vélo, marchez et prenez les transports en commun (bus, tram, train, ...) plutôt que la voiture
Tip 2
Ride a bike, walk and use public transport (bus, tram, train, ...] rather than a car
Conseil 4
Utilisez une gourde plutôt que des bouteilles en plastique
Tip 4
Drink from a reusable water bottle
Conseil 6
Evitez les emballages en plastique, triez vos déchets et recyclez-les
Tip 6
Avoid plastic packaging, sort your waste and recycle it

PORTUGAL


Make sure to have double glazed windows.
Use LED lamps.
Buy A+ Class appliances. They are more eco-friendly and they are also pocket-friendly.
A
B
C
D
E
F
G
Think before you buy!
The world expects you to take care of it!
If you follow these tips everyone will thank you, including the future genarations.
With the support of the Erasmus+ Programme of the European Union
OGET
Eco Friendly Home
Work done by: Artur Rey; Henrique Costa; Maria Inês Moreira; Margarida Carreiro; Mariana Cavaco; Miguel Cosme; 1ºE
Subjects: English, Geography;
Teachers: Ana Isabel Duarte, Fernanda Martins.


WHAT CAN YOU DO IN YOUR HOME?
Turn off all of the light switches when not in use.
Use water rationally by:
-Closing the taps while you are not using them;
-Water the plants at night to decrease water evaporation;
-Take short showers;
-And others.
REDUCE
REUSE
RECYCLE
The 3R's
Use daylight as much as you can.
Use glass packaging instead of plastic packaging.
Turn your appliances off, don't leave them on stand by.
Try not to use disposable products like plastic cups, forks, knives, straws, etc;
Always fill your washing and drying machines completely when doing your laudry. Do the same thing with your dishwasher.
Use rechargeable batteries instead of the usual ones.
Energizer

Steps to a Circular Economy

Using the framework in each axis of action, the following measures will be promoted:

- Continue the implementation of the strategy of Green public procurement;
- Integration of incentives benefiting business models, economic products and services, such as tax benefits to encourage the use of recycled or ecological construction building;
- Promote the valorization of by-products and scrap work at no prevention, favouring the development of strategies and mechanisms for resource extraction, for example, circular market outlets.

The circular economy proposes a change in any way to consume, from product design to our relationship with the raw materials and residues, rethinking, rebuilding and reusing materials that would be put aside or alternately subject considered "trash".

In this way, the circular economy constitutes a method of sustainable development, favouring the environment and, consequently, future generations. Saving the Earth of waste that damage ecosystems, circular economy proposes a method that integrates the continuous production with the concern for the environment and for the integrity of the medium.

Made by :

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Miguel Gomes
Pedro Henriques
Tiago Santos
Timofey Gerlevich
Tomás Martins

With the support of the Erasmus+ Programme of the European Union

OGET

ESCOLA SECUNDÁRIA DE LOULÉ

Circular Economy

A reorganized economic model focused on coordination of systems of production and consumption in closed circuits.

The Circular Economy is an environment-friendly economy.

What is the circular economy ?

Circular economy is a strategic concept based on reduction, reuse, recovery and recycling of materials and energy. Replacing the concept of end-of-life of the linear economy, new circular flows reuse, restoration and renewal. Integrated process, the circular economy is seen as a key element to promote the decoupling economic growth and the increase in the consumption of resources, relationship until here seen as inexorable.

Advantages of Circular Economy

- The decrease of resources to raw materials;
- Less pollution both in production and in distribution;
- Reduction of the environmental pressure;
- Use of new natural products to make products;
- Cost reduction;
- Innovation and improvement in the processes of the companies;
- Promotes job creation;
- Causes the increase of the competitiveness, promotes innovation and business.

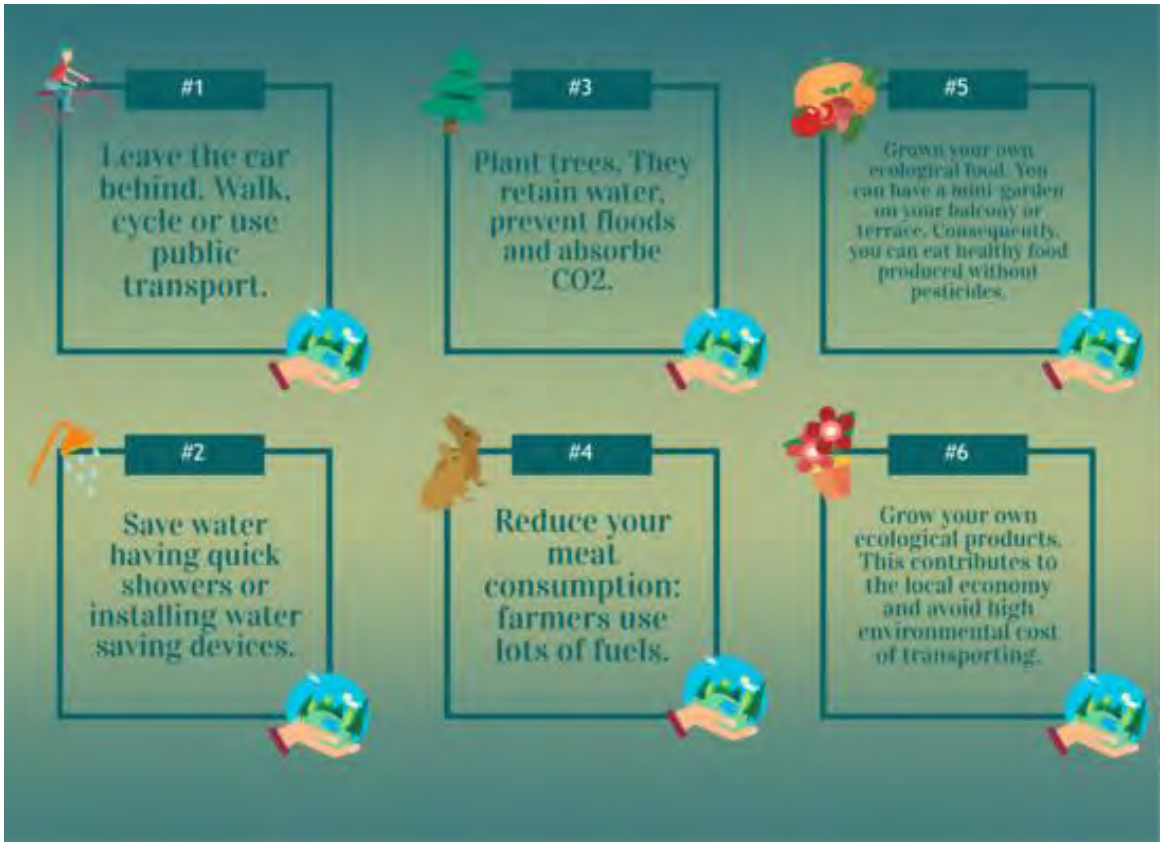
Principles of Circular economy

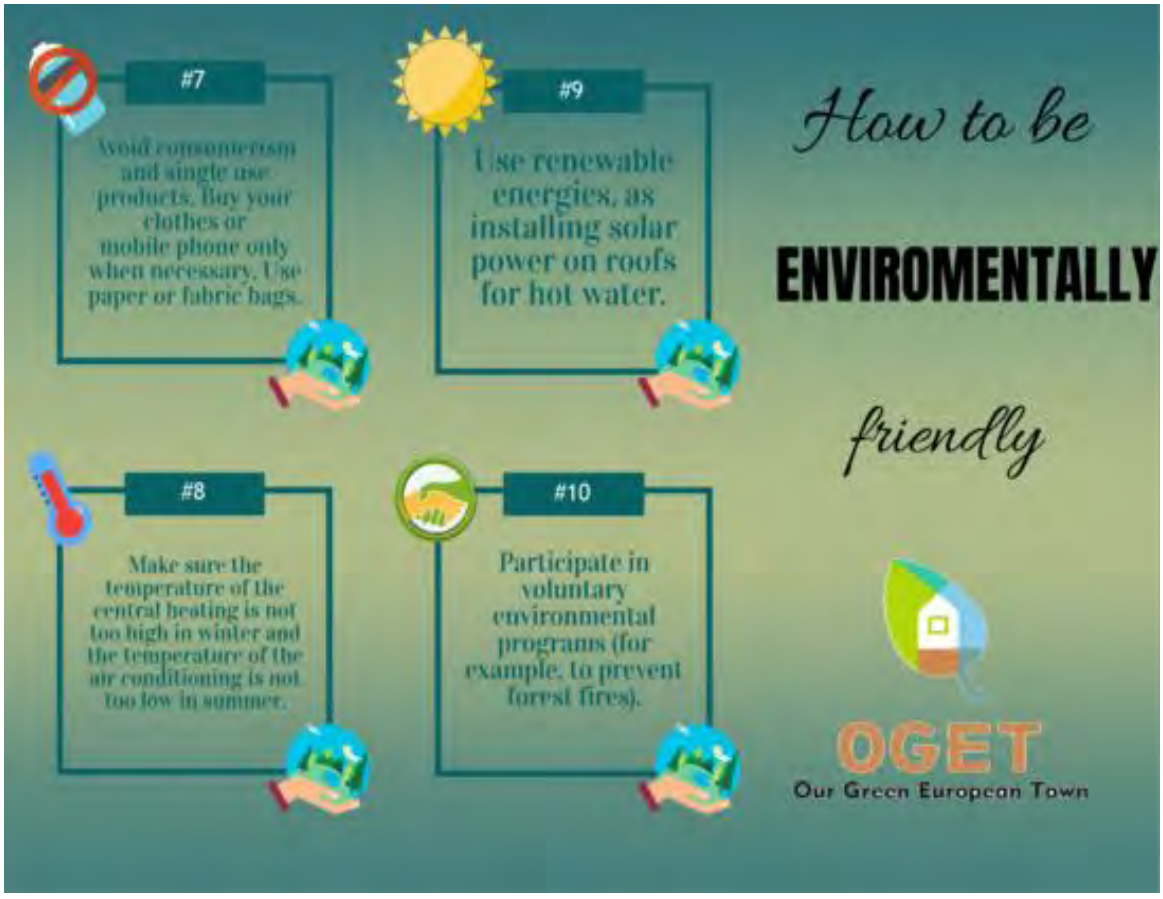
The circular economy departs from the linear concept that starts in the extraction, production, after passing through the use and, finally, at your disposal. This focuses on the preservation and enhancement of the natural capital and the minimization of waste.

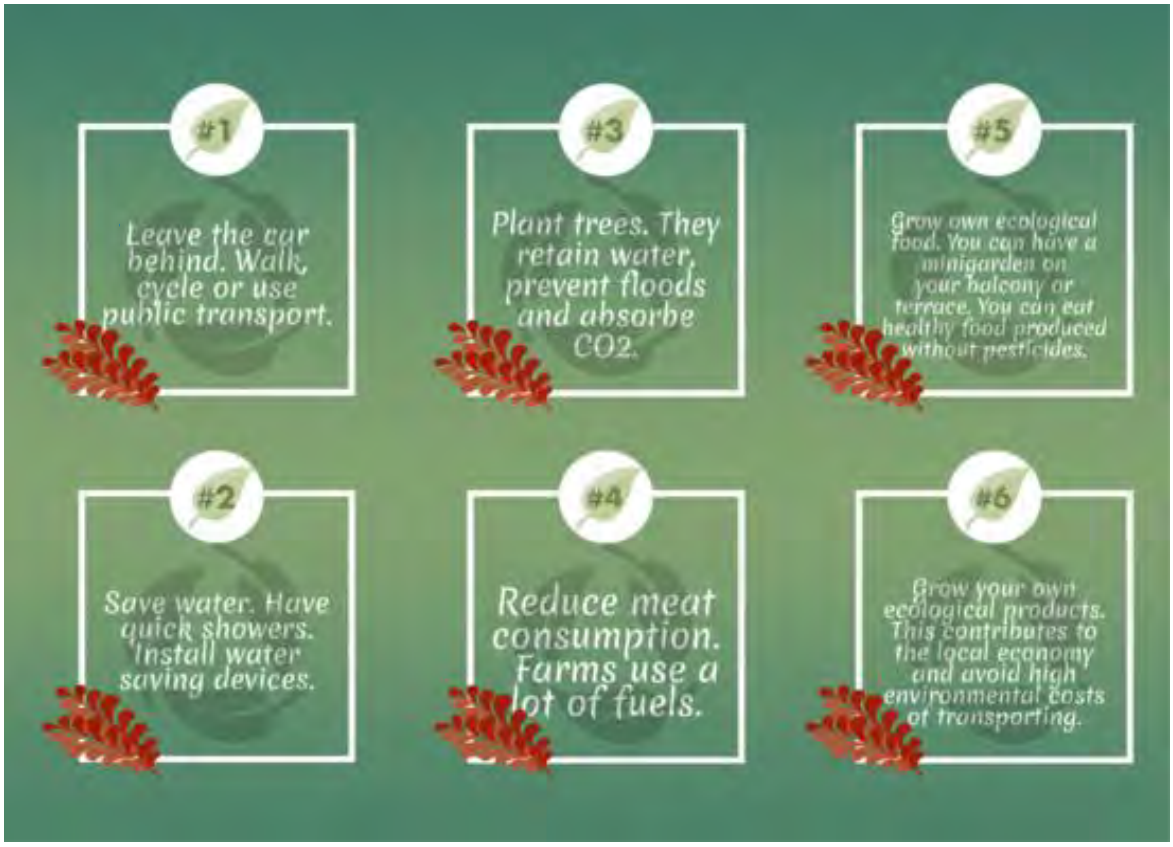
Steps to a Circular Economy

The circular economy emerges from the history of measures encouraging economic paradigm shift – a linear system, based on the erosion of natural capital, for a restorative and regenerative system, seeking to preserve the usefulness and value of resources for as long as possible, safeguarding ecosystems and financial capital of the enterprises and civil society.

SPAIN


#1
Leave the car behind. Walk, cycle or use public transport.
#3
Plant trees. They retain water, prevent floods and absorbe CO2.
#5
Grown your own ecological food. You can have a mini garden on your balcony or terrace. Consequently, you can eat healthy food produced without pesticides.
#2
Save water having quick showers or installing water saving devices.
#4
Reduce your meat consumption: farmers use lots of fuels.
#6
Grow your own ecological products. This contributes to the local economy and avoid high environmental cost of transporting.


#7
Avoid consumerism and single use products. Buy your clothes or mobile phone only when necessary. Use paper or fabric bags.
#9
Use renewable energies, as installing solar power on roofs for hot water.
How to be
ENVIROMENTALLY
friendly
#8
Make sure the temperature of the central heating is not too high in winter and the temperature of the air conditioning is not too low in summer.
#10
Participate in voluntary environmental programs (for example, to prevent forest fires).
OGET
Our Green European Town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#4
Reduce meat consumption. Farms use a lot of fuels.
#6
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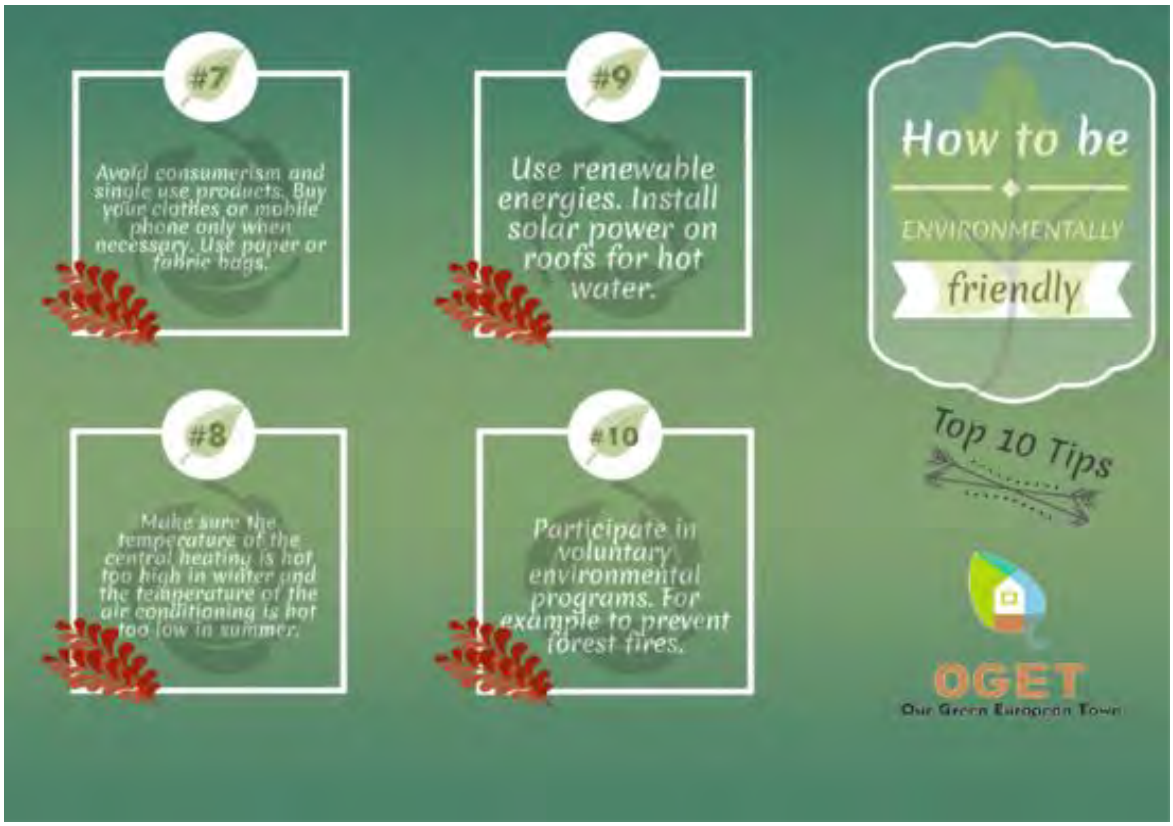
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Avoid consumerism and single use products. Buy your clothes or mobile phone only when necessary. Use paper or fabric bags.
#9
Use renewable energies. Install solar power on roofs for hot water.
How to be
ENVIRONMENTALLY
friendly
Top 10 Tips
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#10
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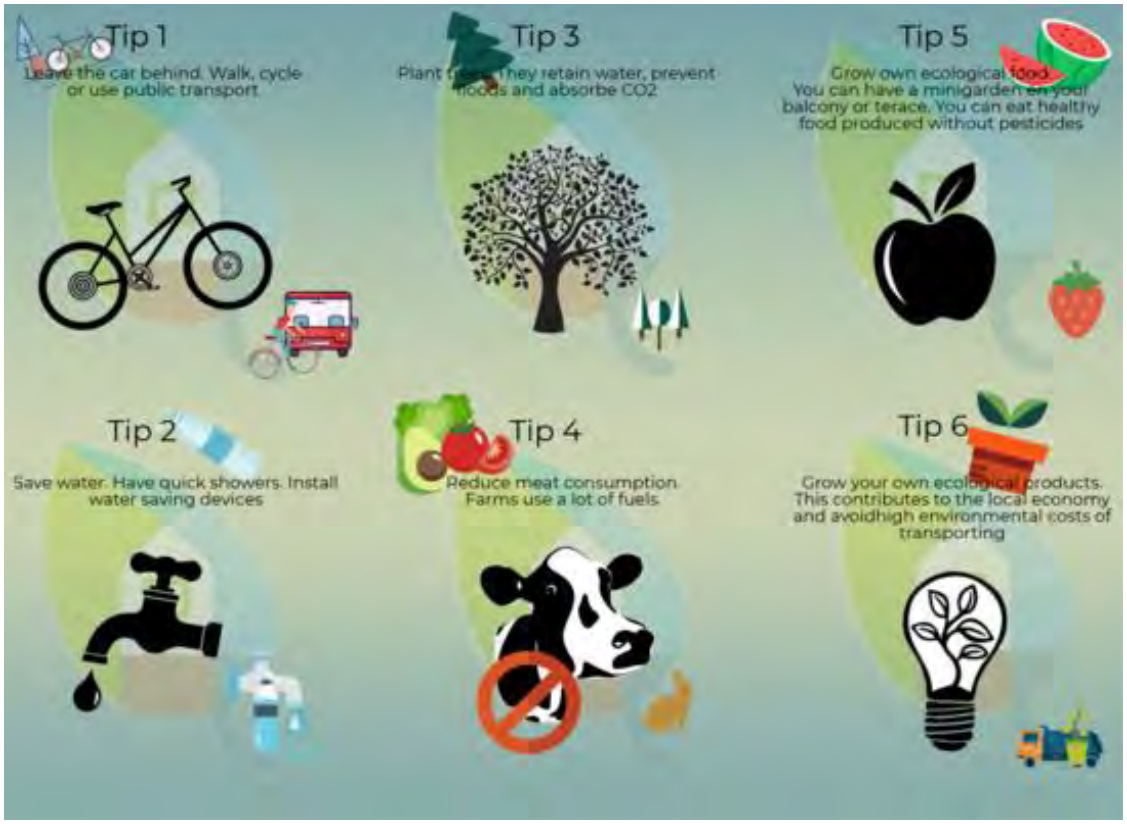
OGET
Our Green European Town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How to be environmentally friendly
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OGET
Our Green European Town


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Our Green European Town
2018-1-EE01-KA229-047071
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Our Green European Town
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How to be environmentally friendly
Co-funded by the Erasmus+ Programme of the European Union

Logo contest

BULGARIA

ESTONIA

FRANCE


OGET
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Our Green European Town


Our Green European Town


Our Green European Town

ITALY


ERASMUS
BULGARIA · ESTONIA · FRANCE · ITALY · PORTUGAL · SPAIN


Erasmus
Our green
European
Town
Bulgaria - Estonia - France - Italy - Portugal - Spain


Erasmus
Our Green European Town
Italy
Spain
Bulgaria
France
Portugal
Estonia

PORTUGAL


colour version
OGET
OUR GREEN EUROPEAN TOWN
black and white version
OGET
OUR GREEN EUROPEAN TOWN
Simbology


Colour Version
OGET
Our Green European Town
Black and white Version
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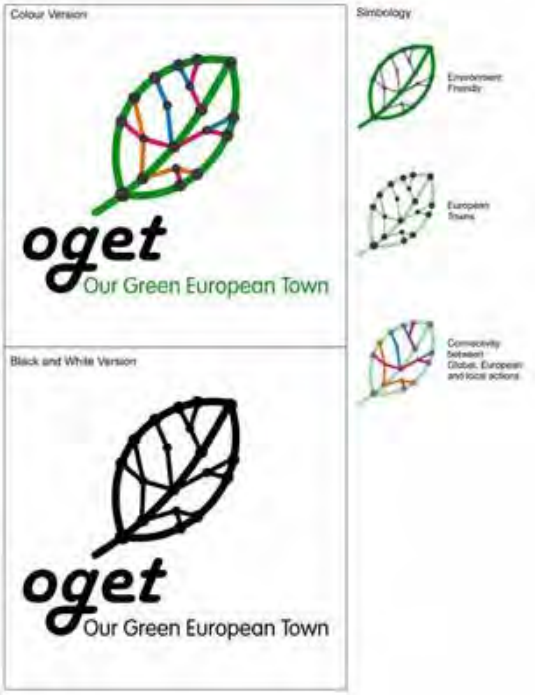
Simbology


Colour Version
oget
Our Green European Town
Black and White Version
oget
Our Green European Town
Simbology

SPAIN

Environmental activities in schools

BULGARIA

Two extracurricular environmental clubs were set up to carry out the project Activities

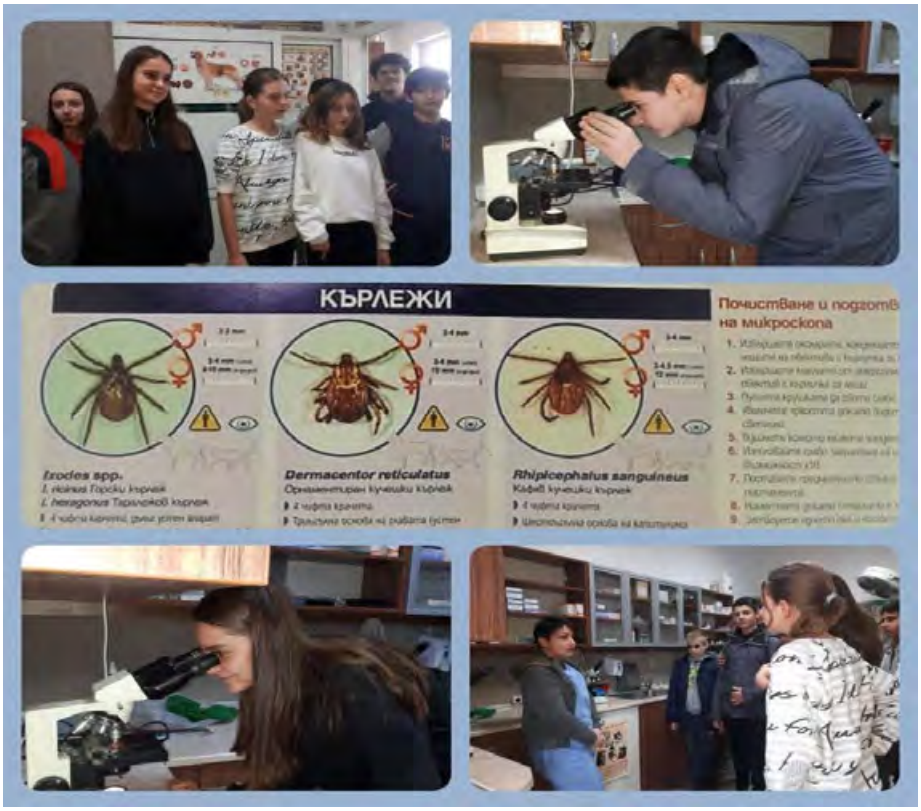
Students created an environmental charter about our town and presented it to the local authorities and the Regional Inspectorate of Education. The environmental charter suggested ideas for sustainable development of our town.

Students set up exhibitions of art and models of houses created with natural materials – seeds, leaves, wood and stone

“Konstantin Velichkov” Secondary School of Mathematics became a member of a global school exchange programme on waste *Trashed World* We met one of its founders during the mobility in Bulgaria.

The project topic was integrated and activities were organized in regular Science classes.

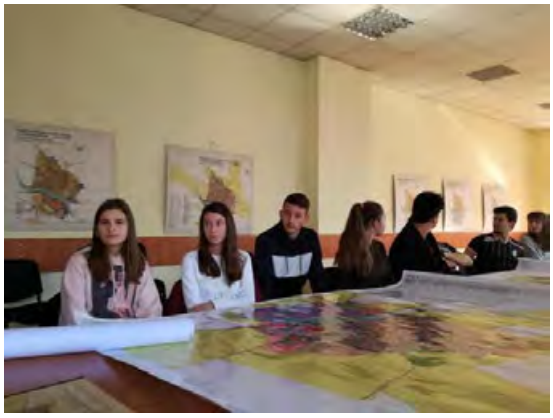
We conducted classes in front of parents and representatives of Regional Inspectorate of Education



Guest lecturers were invited to talk about:

The biodiversity in Pazardzhik region and Bio production of vegetables and fruits

The main architect of our town hosted a meeting with project participants to discuss future development plans and the new eco trends in architecture.



Students participated in Green Olympiad - the biggest ecological educational event in Bulgaria

Our school led workshops for preparing homemade yoghurt.

ESTONIA

- Participation in the project funded by Keskkonnainvesteeringute Keskus (KIK), the project' s name is "Pärnu Ühisgümnaasiumi õpilaste keskkonnateadlikkuse tõstmine kodukoha loodust tundma õppides" (Raising the environmental awereness of the students of Pärnu Ühisgümnaasium by getting to know the local nature", September 2018- June 2019
- Educational program by Pärnumaa Keskkonnaamet (Environment Center of the Region of Pärnu) "Kabli linnukuud" (The birds months in Kabli), September 2018
- Workshops on sciences in the frames of TEADLASTE ÖÖ FESTIVAL (The Researchers' Night Festival), September 2018
- https://yhis.parnu.ee/archives/gallery/toff-meie-koolis-3-10-2018
- Educational program by Pärnumaa Keskkonnaamet "Jäätmed linnaruumis" (The waste in urban space), October 2018
- Educational program by Pärnumaa Keskkonnaamet "Pärnu jõgi kui lõhejõgi" (The Pärnu River as the river of salmon", October 2018
- Workshop "Rändav bioklass" (Travelling bioclass), November 2018
- https://yhis.parnu.ee/archives/gallery/randava-bioklass
- An educational program by TTÜ Särghaua Õppekeskus (The Study Center in Särghaua of Tallinna Tehnikaülikool) "Kivimid ja mineraalid" (The Rocks and minerals", November 2018
- Participation in an educational program + workshop "Bacteries in the school environment", November 2018
- A lecture about global warming by Merike Palginõmm from Pärnumaa Keskkonnaamet, 27 November 2018
- A lecture about the sea and its quality in our region by Jüri Tenson, a maritime biologist, the 27 November 2018.

FRANCE

19th October 2018 - Discovery of a project of a new district in Strasbourg - Lecture and visits

Lecture about town planning. Future district Archipel 1 Wacken-Europe close to the European Parliament.Organisation of public transportation, office and apartment implementation, … A new city in the city. Worksite visits.

Speakers:

- Mr Eric DUSSIER, Project Manager Wacken-Europe district from Strasbourg and Strasbourg' suburb council (www.strasbourg.eu/archipel)
- Mr Erik GIUDICE, Architect from architectural agency EGA Erik Giudice Architects (erikgiudice.com)

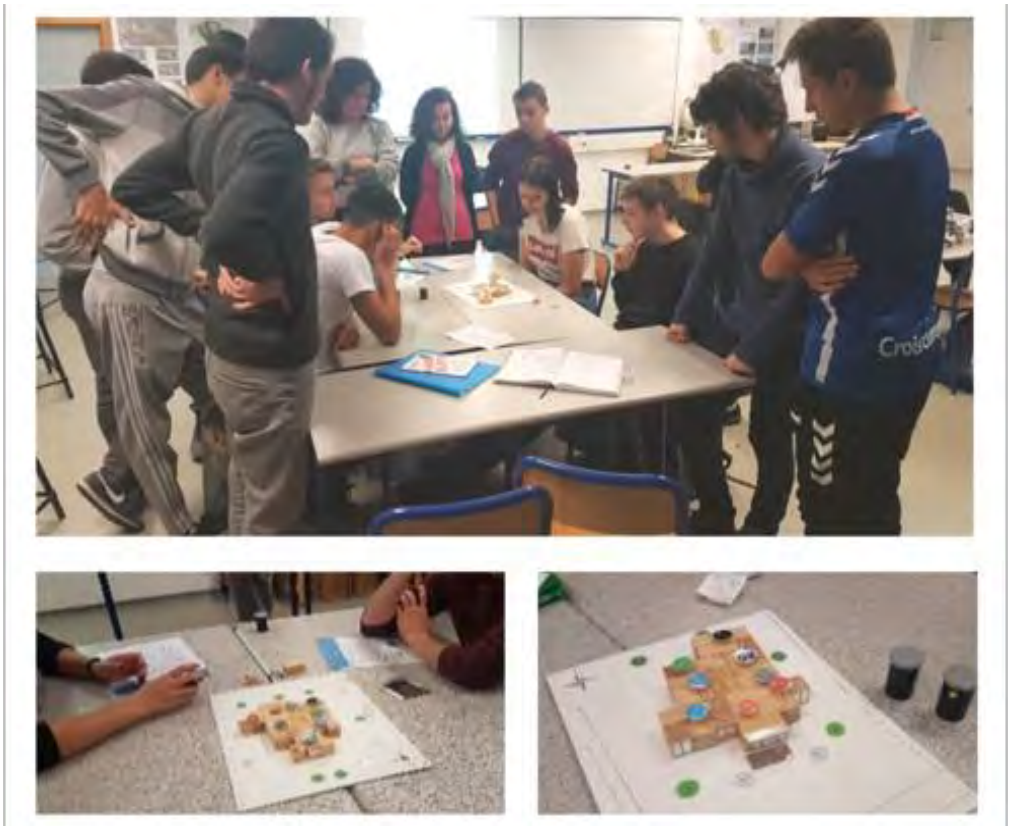
6th November 2018 - Bioclimatism - Workshop

Workshop about bioclimatism with the association Alter Alsace Energies (www.alteralsace.org). Association which promotes eco-friendly use of energy and renewable energies.

Workshop in the form of activities about discovery of bioclimatic principles: orientation, landscape integration, compactness, solar protection, location of the openings and organisation of interior spaces, …

Speakers:

- Mrs Dorothée KIMMEL, Coordinator of the educational area from the association Alter Alsace Energies
- Mr Eloi NAVARRO, Manager of advice to individuals from the association Alter Alsace Energies



9th November 2018 - Climate/Global warming - Lecture

Lecture from Météo-France (National Agency about climate and weather) about climate, global warming and local impact.

Speaker:

- Mrs Sylvie ROY, Météo-France engineer, Technical coordinator about climatology and Météo-France Communication Manager for Nord-Est area

13th November 2018 (morning) - How people can reduce their impact on environment - Lecture

Lecture, in the Grand-Est Regional Parliament hemicycle, about solutions to the reduction of our environmental footprint. Positive arguments about how people can experience this ecological transition. Demonstration of the interest of individual or collective actions.

Speaker:

- Mr Michel HUTT : Writer (author of the novel : « Le cri du Colibri »)

13th November 2018 (afternoon) - « Unplug your high school » - Challenge

Presentation of the challenge « Unplug your high school » in the Grand-Est Regional Parliament hemicycle. This challenge is a competition between high schools in the Alsace region. The aim of the challenge is to reduce the energetic consumption of our high school during a specific period and to compare our results with the consumption of the previous year at the same period. The main objective is to raise the awarness of a maximum of pupils of our high school about simple gestures to reduce their energetic consumption. They will apply these gestures at home after.

The presentation of the challenge has been completed by workshops between pupils of different high schools to determine some actions to realise during the challenge in each high school.

Marc Bloch high school was the winner of the previous challenge (2018). The new challenge will be held between 7th of January and 9th of February 2019.

Speakers and facilitators:

- Mr Victor FERNANDES, Project Manager Energy Directorate of Youth and High Schools in Grand-Est Region
- Mrs Dorothée KIMMEL, Coordinator of the educational area from the association Alter Alsace Energies
- Mr Guy-Noël HUET, Project Manager from Alsace agency ENGIE-Cofely (Private energy supplier)

26th November 2018 - Energy and Sustainable Development - Lecture

Lecture « Energy issues and sustainable development ». Presentation of different kinds of production of electricity (nuclear, fossil fuels (oil, coal, gaz), renewable (hydroelectric, biomass, wind turbine, solar panels, marine current power, waves, …). French objectives about production of electrical energy : currently 75% from nuclear to 50% in 2035. How to reduce our consumption, for example in housing. Notion of sobriety

Speaker:

- Mr Sami YAHMI, Freelance lecturer from Junium Diffusion

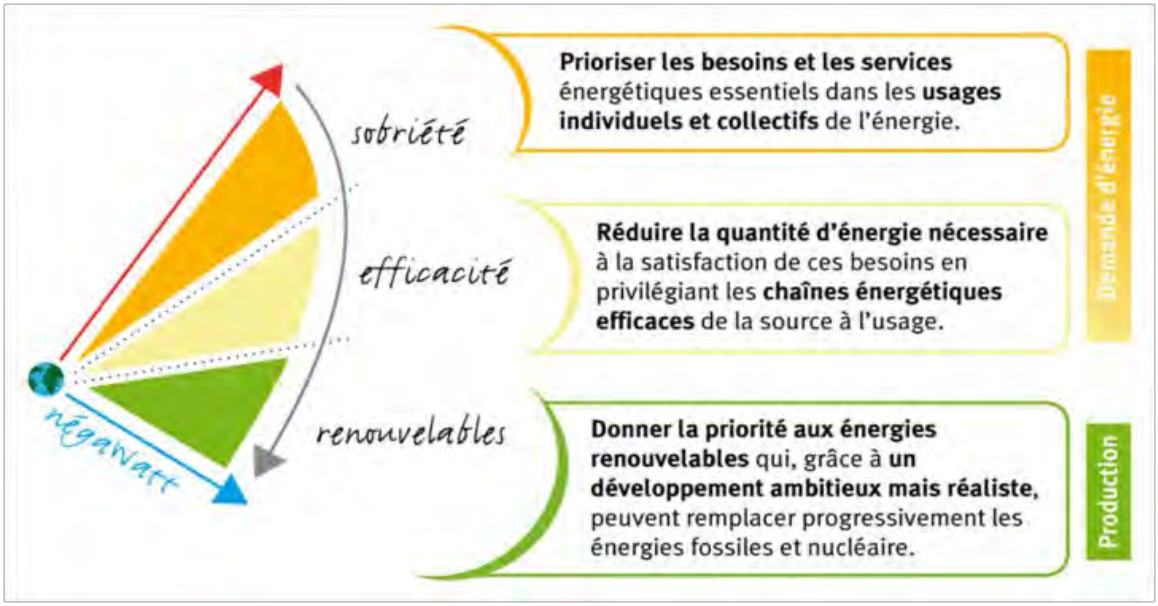
10th December 2018 - Energy, climate, globale warming and sustainable development - Lecture and debate

Lecture about global warming issues with a focus on geopolitical issues. Moving debate with the pupils.

Presentation of the Negawatt power concept: sobriety, efficiency, renewable energies (négaWatt: negawatt.org/en).

Speakers:

- Mrs Claire HIEBEL, Educational environment facilitator from the association Alter Alsace Energies
- Mrs Marine DAUTIER, Educational environment facilitator from the association Alter Alsace Energies


sobriété
efficacité
renouvelables
négawatt
Prioriser les besoins et les services énergétiques essentiels dans les usages individuels et collectifs de l'énergie.
Réduire la quantité d'énergie nécessaire à la satisfaction de ces besoins en privilégiant les chaînes énergétiques efficaces de la source à l'usage.
Donner la priorité aux énergies renouvelables qui, grâce à un développement ambitieux mais réaliste, peuvent remplacer progressivement les énergies fossiles et nucléaire.
Demande d'énergie
Production

17th December 2018 - Eco-district and green buildings - Visit

Presentation and visit of green buildings with 94 apartments in the eco-district Rives du Bohrie in Ostwald (south of Strasbourg) (www.strasbourg.eu/rives-bohrie-ostwald). Presentation of the main rules of an eco-district. Contracting owner: CDC Habitat (www.cdc-habitat.com) / Project management: AJEANCE (www.ajeance.fr)

Speaker:

- Mr Julien JEANROY, Architect from the architects agency AJEANCE (www.ajeance.fr)

ITALY

- Increase students' interest in natural sciences and the sustainable environment by promoting environmental awareness and environmental protection was the theme of the conference entitled "Environmental Sustainability: what future for our planet" organized by Prof. Valentino Coco, Project Coordinator , who presented the activity , and by the Cutgana research center of the University of Catania within the Erasmus plus project "Our Green European Town" held in Catania on 17 th April 2019 at the Liceo Scientifico e Linguistico " Principe Umberto di Savoia"

- Lecture about climate Changes. Prof. Sergio Messina
- Lecture about impact on the enviroment by Vulcanic activities. Prof. Giuseppe Salerno
- Lecture about "Protected natural areas and enviromental development" Prof. Emilia Musumeci
- Participation to the campaign "Let's clean the sea by Acicastello"
- Participation to the campaign "Sprout", clean urban parks
- Clean the beach.


GERMOGLI
Una festa per incontrarsi
e far nascere nuove idee.
UN ALTRO PARCO È POSSIBILE
filosofia | letture | musica | cinema | ecologia
laboratori | riutilizzo | orto urbano | ginnastica all'aperto
laCittà laCittà
ADOZIONE PARCO CITTADINO
NUOVA ACROPOLI


GERMOGLI
settima edizione! 2019
UN ALTRO PARCO È POSSIBILE
23 giugno
ore 17,00
Filosofia
Ecologia
Solstizio
Teatro
A fera Bio
Parco
Madre Teresa
di Calcutta
Via Eleonora d'Angiò
presso Teatro Ambasciatori
seguici su:
Nuova Acropoli - Catania, Via Verona n. 19
Dal lun al ven dalle 18 alle 21
cell. 380 3305167 email: catania@nuovaacropoli.it
LA FERA BIO
Comune di Catania
nuovaacropoli.it
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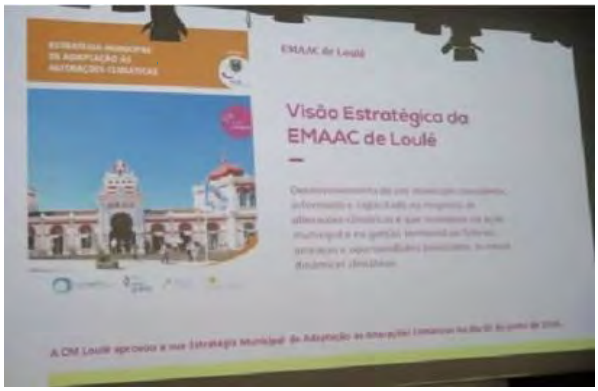
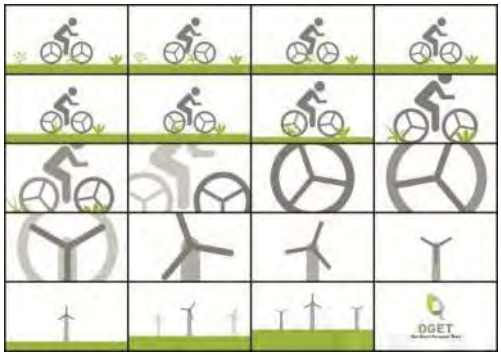
PORTUGAL

Lecture *town and mobility*: with climate change, loulé has become a resilient town, defining measures to tackle environmental problems



Garbage collection and separation campaigns at school, on the beach and in the city

CREATION OF PROMOTIONAL VIDEOS ON ENVIRONMENTAL SUSTAINABILITY.



FIRST YOUTH CONFERENCE FOR A SUSTAINABLE WORLD AT ESL-LOULÉ SECONDARY SCHOOL

First of many more ...

Our students are the present and also the future, and they are all aware of the important challenge they have in front of them ...

STUDENT'S CONFERENCE ABOUT CLIMATE CHANGE, THAT TOOK PLACE IN FARO

EDUCATION AND CHALLENGES OF THE FUTURE: ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

Our school had a delegation in this national conference that took place in Lisbon. Our communication was related to Climate Change, and the good educational practices / projects of our school oriented to the promotion of good habits of citizenship. Our school represented all the south of Portugal.

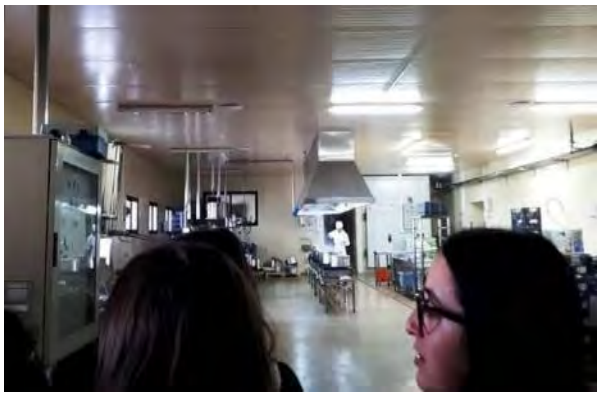
YOUTH PARLIAMENT: NATIONAL / EUROPEAN PROGRAM IN WHICH ESL PARTICIPATED ON “STRATEGIES OF THE MUNICIPALITY OF LOULÉ FOR ADAPTATION TO CLIMATE CHANGE: CONSEQUENCES AND PRESENTATION OF MEASURES TO MINIMIZE THE IMPACT”.

SCHOOL WASTE COLLECTION CAMPAIGN IN THE FORM OF A CHALLENGE “MY CLASS CLEANS MORE THAN YOURS”, WITH A COLLECTION OF 768.22 KG OF WASTE AND GARBAGE OUT OF SCHOOL”

LECTURE ON CLIMATE CHANGE, WITH ENGINEERS AND THE MAYOR OF LOULÉ

VISITING A BIO-FARM IN PORTUGAL

Quinta do Freixo: The products of this facility are all handcrafted, without adding any preservatives and made with the products of the farm located in the interior of the Algarve.



Social Gardens in Loulé provide the most deprived citizens with the possibility of growing organically and sustainably and enjoying fresh agricultural products.

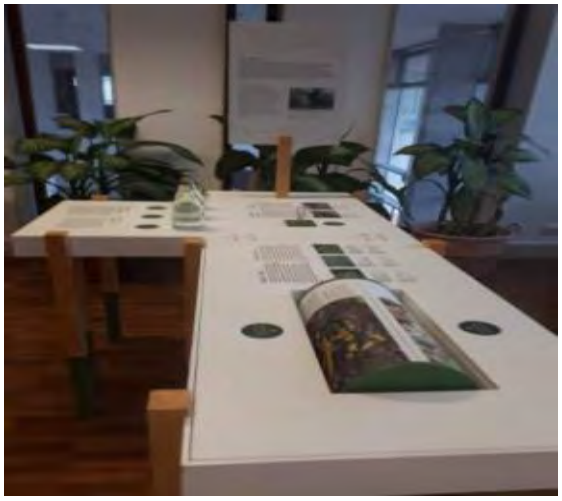
WORK ON THE 17 ODS WITH POSTER AND VIDEO PRODUCTION AND EXHIBITION:

ANALYSIS OF THE CURRENT SITUATION IN 2030 - PORTUGAL AND PROSPECTS FOR 2030.

PARTICIPATION IN A REFORESTATION CAMPAIGN IN THE ALGARVE MOUNTAINS WITH THE PLANTING OF 50 CORK OAKS, AN ENDOGENOUS TREE.

Monitoring of Ribeira do Cadoiço, in Loulé, to check water quality.

Exhibition for the school community: water - from ecosystems to ecosystem services



CONFERENCE ON CIRCULAR ECONOMY: THE REUSE OF EXISTING NATURAL RESOURCES, IN A SUSTAINABLE WAY.

ESL LIVE ON THE MAIN NATIONAL PUBLIC TV CHANNEL

DEBATE ABOUT CLIMATE CHANGE WITH SOME OF THE MAJOR PERSONALITIES IN THE UNITED NATIONS INTERGOVERNMENTAL BOARD.

Collection campaign of invasive plants in Ria Formosa and Ribeira do Cadoiço.

SPAIN

ENVIRONMENTAL VOLUNTEERING

The students, through the environmental volunteering program "Net to net" European net "Natura 2000" on November 2, collaborated in obtaining phyto phenological data on various evergreen, deciduous and marcescent native trees and shrubs. From these data we will analyze how the meteorological variables are affecting the vegetative and reproductive phases, and it is expected that this will serve as a demonstration element for future biodiversity conservation policies. In the same activity, they also visited a forest nursery where these same autochthonous species are reproduced. In short, they saw how climate change is affecting our forests.

TALK AND WORKSHOP ON THE ECONOMY

On November 19, Luis Campos, a researcher at the University of Seville, offered a talk and workshop on the economy for the common good for high school students and vocational training students. The economy for the common good is a new economic and sociopolitical concept promoted by austrian Christian Felber, who tries to establish a new economic model that is sustainable and that takes into account fundamental human values. Campos explained that the current economic model, based on profit-making, is condemning to poverty to millions of human beings, which is not sustainable and involves a large number of environmental problems, such as climate change. Our rapporteur has brought together an interdisciplinary team to carry out a pioneering project to apply the common good economy model to one of the localities assigned to our center: Beneixama.

LECTURE ABOUT CLIMATE CHANGE

On 26th of November, Mayra La Cruz, CEO & Founder of Sustainable Environmental Network (SEN), came to our high school to tell us about how climate change is affecting us and how we can contribute to palliate the effects of it.

TALK ABOUT ENVIRONMENTAL VOLUNTEERING

A member of an environmental association that actively works in the conservation, protection and improvement of our environment, has presented to our students which is the work of these volunteers: fire prevention, bird ringing, introduction and conservation of aquatic ecosystems and other things. These students have worked in group, directed by the rapporteur, about the fire in our ecosystem and what measures they can carry out to control it. From the ideas provided by the students, has emerged the need to maintain the mountain clean of human waste.

PLOGGING

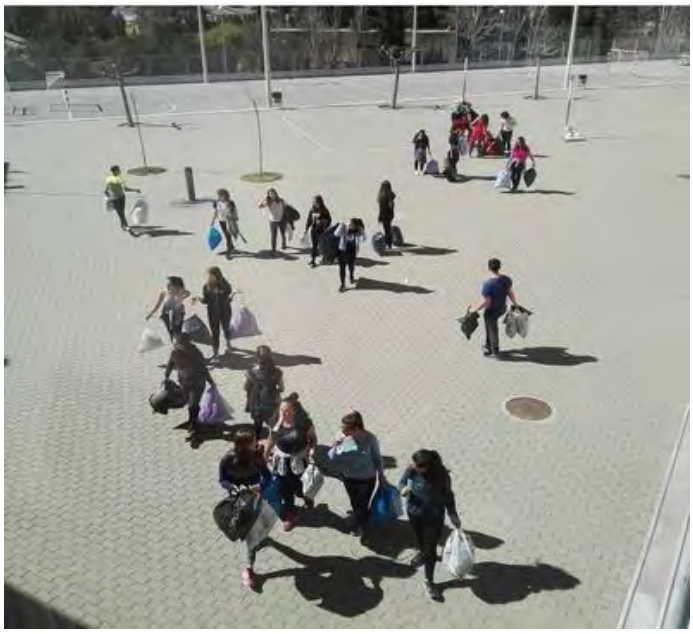
As a continuation of the previous activity, we have carried out an activity of plogging, sport modality emerged in Sweden, specifically in Stockholm, which is simply running and going collecting the garbage that are in its path, at the same time.

DRAWING CONTEST ABOUT THE POLLUTION OF THE SEAS

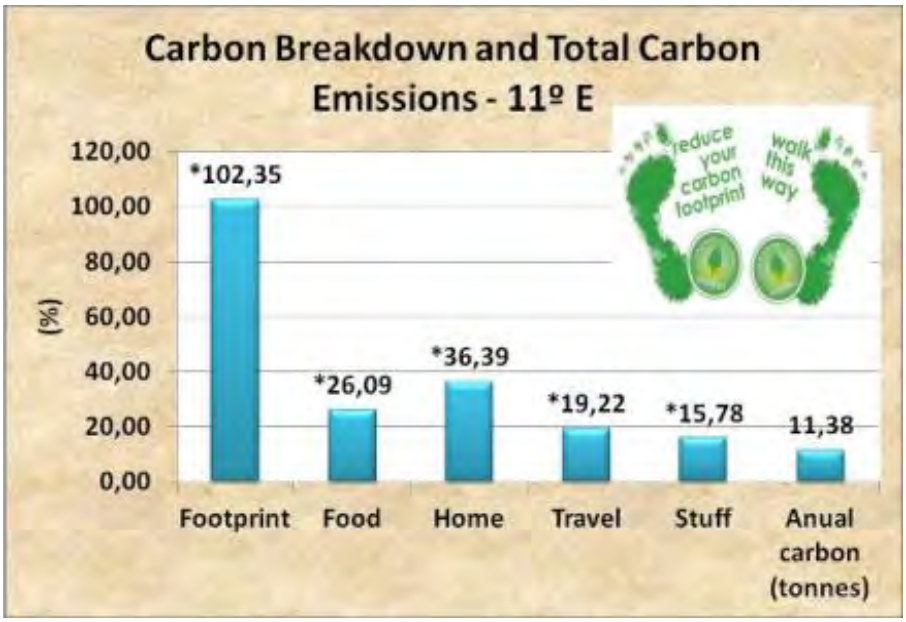
COMIC EXHIBITION ABOUT DEVELOPING SUSTAINABLE OBJECTIVES

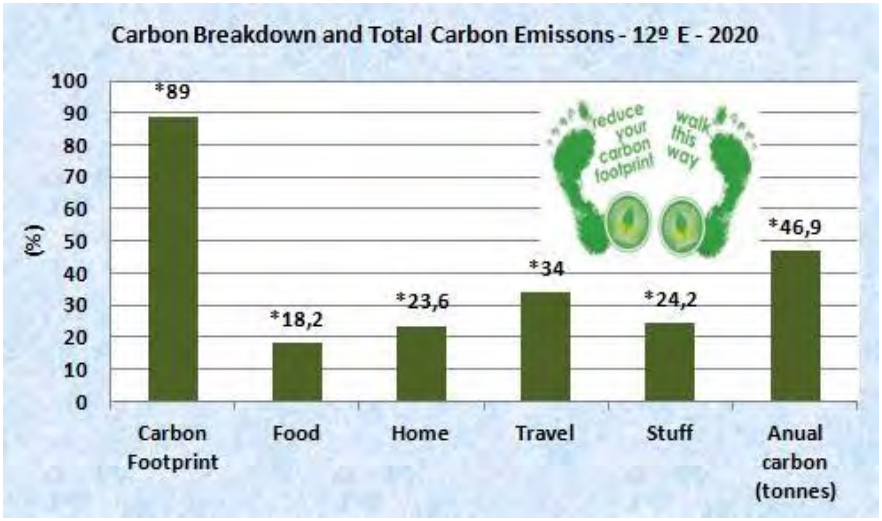
GROWING AN ECOLOGICAL ORCHARD

#FRIDAYSFORFUTURE IN IES BIAR



COMPARATIVE STUDY OF THE 2019 AND 2020 CARBON FOOTPRINT





https://footprint.wwf.org.uk/questionnaire *Percentage

OUR CARBON FOOTPRINT IN 2018

BULGARIA

Our environmental footprint according to www.footprint.org.uk

Students 101% Teachers 102%

ESTONIA

The Estonian team calculated their carbon footprint in October-November 2018 using the web page www.jalajalg.positium.ee

Teachers' average carbone footprint of Pärnu Ühisgümnaasium: 2,65 (gha per person/year) 128,6%

Students' average carbon efootprint of Pärnu Ühisgümnaasium: 2,37 (gha per person/year) 115%

The optimal reference is : 2,06 gha/year

FRANCE

The carbon footprint of French team has been calculated with the Swiss WWF web page

Students' carbone footprint average in Bischeim is : 9,96 Ton/ Year or 2,28 Earths (228%)

Teachers' carbone footprint average in Bischeim is : 9,18 Ton/ Year or 2,11 Earths (211%)

In this period , the cost of 1 Tonne of CO2 is just €18,00

ITALY

The Carbone Footprint of the Italian team has been calculated using the web page www.myfootprint.com/ calculator.aspx

The average of Italian teachers is 5,35 of CO2 per year

The average of Italian students is 4,01 of CO2 per year

PORTUGAL

The carbon footprint of Portuguese team has been calculated using web page www.footprint.wwf.org.uk

Students 112,6% Teachers 75% Annual Carbone 11,6 Tonnes

SPAIN

The Carbon Footprint of the Spanish team has been calculated using the web page www.myfootprint.org. The average carbone footprint by student is 2,73 Earths. The average carbone footprint by teacher is 2,2 Earths. The national average is 2,67 Earths.

General average is 2,06. Students: 133% Teachers: 107%

OUR CARBON FOOTPRINT in 2020

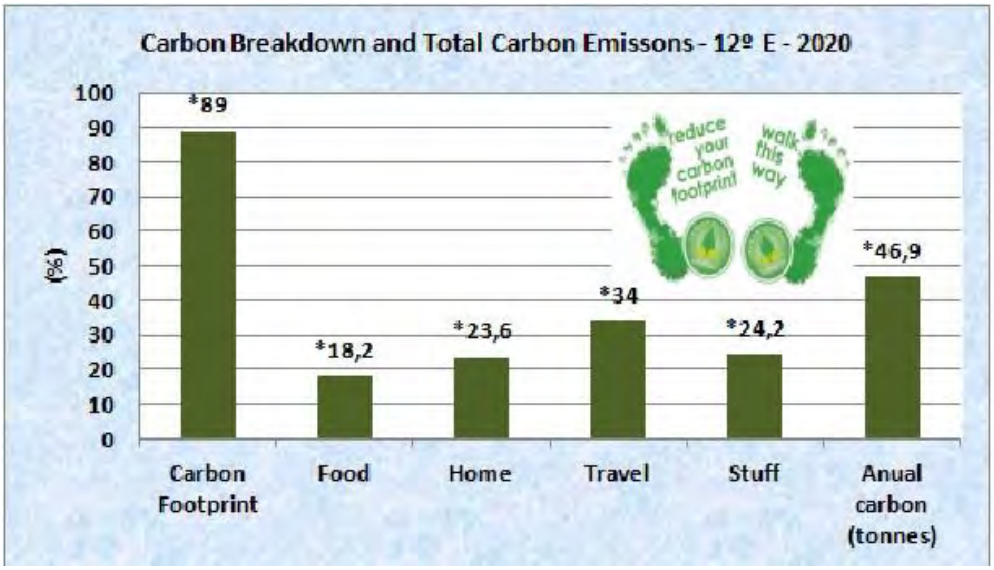
BULGARIA

Our environmental footprint according to https://footprint.wwf.org.uk/

Students - 99 %

Teachers - 100%

PORTUGAL



ITALIAN SCHOOL

The carbon footprint of the Italian team has been calculated using the web page www. carbonfootprint.com/calculator.aspx.

The carbon footprint calculated refers to February 2020 before the lockdown

The average of the italian teachers is 0,28 of CO_2.

The average of the italian students is 0,30 of CO_2.

ESTONIAN SCHOOL

the average carbon footprint by student in Pärnu Ühisgümnaasium: 2,27 (gha per person in a year) (110% - still not perfect but a bit better than last time)

the average carbon footprint by teacher in Pärnu Ühisgümnaasium: 2,48 (gha per person in a year) (120%)

The optimal reference: 2,06 gha/per/y

FRENCH SCHOOL:

The carbone footprint of the French team has been calculated in 2020 with the Swiss WWF web page (like last year).

The average carbone footprint by student in Bischheim is: 9.12 tonnes of CO2 per year or 2.07 Earths (207 %).

The average carbone footprint by teacher in Bischheim is: 8.87 tonnes of CO2 per year or 2.02 Earths (202 %).

It's a little bit better than the last year but it's still a lot.

The global (world) average carbone footprint is: 7.41 tonnes of CO2 per year or 1.68 Earths (168%).

SPANISH SCHOOL:

The carbone footprint of the Spanish team has been calculate using the page www.ceroco2.org. Average carbone footprint for students is 6’342 tonnes of CO2, for teachers is 5’339 tonnes of CO2.

National average is 5’8 tonnes of CO2.

General average is 4’9 tonnes of CO2.

Students: 129%

Teachers: 109%

Photos of environment in our countries

BULGARIA


Winters in Pazardzhik
The Clock Tower
Then
Winters were cold and had lots of snow.
Now
Winters are dry and there is no snow, because of the global warming.


Maritza river
Before:
In 1868 people called it the "Water Highway". Every day, rafts, boats and ships have passed.
It is believed that its decrease is due to less rainfall and its diversion into channels.
Now:

ESTONIA

The TOP 10 of photos of the photo competition held in Pärnu Ühisgümnaasium:

1. Author: Mirjam Holtsmann (student, 17) - Birds' family life in estonian spring
2. Author: Mirjam Holtsmann (student, 17) - The swans coming home in spring

1

2

3. Author: Mirjam Holtsmann (student, 17) - Estonian frozen bog in early spring
4. Author: Cätlin Sutt (student, 17) - Magical lights in summer sky

3

4

5. Author: Mirjam Holtsmann (student, 17) - Loads of ices on the seaside

6. Author: Eve Popp (biology teacher) - Very cold Estonian summer in 2017

5

6

7. Author: Laura Eichhorst (student, 17) - Beauty of summer

8. Author: Sandra Pilv (student, 18) - Up to the sky

7

8

9. Author: Mirjam Holtsmann (student, 17) - The pärnu river

10. Author: Mirjam Holtsmann (student, 17) - Rainy spring in estonia

9

10

FRANCE

Causes and consequences of climate change in the Alsace region of France

1.Fabrice Traissard, Vinyards, Westhalten, February 2019

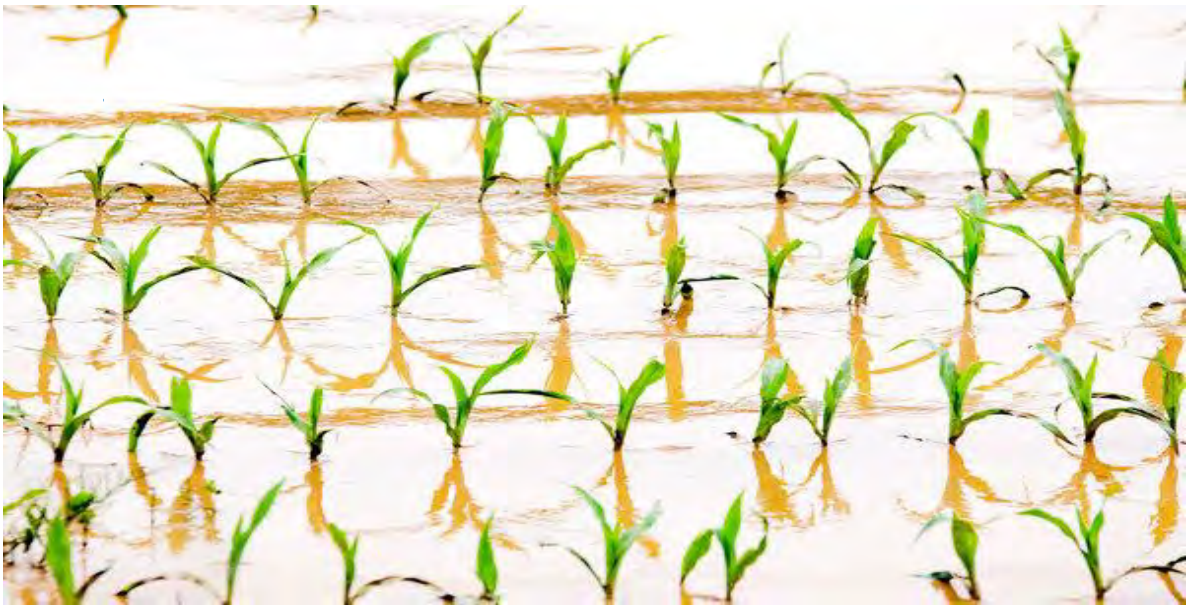
Due to global warming, grapes bud and grow too quickly. This gives winegrowers a hard time fixing their vines before spring arrives and forces them to harvest from late August rather than late September.

2. Fabrice Traissard, Beehives, Wattwiller, February 2019

Due to the spreading of pesticides, bees are becoming an endangered species. It is said that they are safer in cities.

3. Pierre Kohl, Flooded cornfield, Kochersberg, May 2016

Floods are getting more and more common in Alsace. In addition, the increasing heat in our summers severly damages the corn



4. Pierre Kohl, Cow, Orbey, November 2012

Cows also suffer greatly from the increasing summer heat. It is ironic, though, that they also largely contribute to global warming because of mass production. In Alsace, however, they only represent about 1% of the French cattle population.

5. Françoise Kaps, Stork, Munchausen Natural Reserve, February 2019

Storks have become an endangered species. In the winter, they used to migrate to Africa but now, many stop in the south of Portugal. In 1995, Portugal had 1,500 storks in the winter, now they have about 14,000. Some storks do not even leave Alsace anymore, or return earlier.

6. Jeanne Metzinger, Canal, Souffelweyersheim, January 2019

Our winters are not as cold as they used to be. Until the 1970s, this canal used to be frozen most winters and children would skate on it. Now, it freezes mildly every now and then.

7. Laurent Waechter, Burgeonning tree, Strasbourg, January 2018

Trees are burgonning earlier and earlier. This can disrupt their production of fruit since the buds are likely to break due to morning frost.

8. Elena Chatin, Rose, Schiltigheim, March 2019

This fully developped rose was photographed in the winter, on March 1st.

9. Julie Koessler (from the passenger seat), Pollution peak in Strasbourg, February 2019

Pollution peaks are intensifying in some French cities. Citizens are then encouraged to keep their cars at home and use public transport as much as possible.

10. Laurent Waechter, River Whale, Strasbourg, February 2019

This prototype of a very recent local invention collected 30kg of waste (top right) from the Ill river in 9 days. The underwater "whalebones" collect the waste and bring it to the surface, where it can be collected manually.

ITALY

1) Due to the climate change, birds' migration is anticipated.

Author: Pina Di Mauro, (Math teacher), 2018

2) And flowering too.

Author: Pina Di Mauro (Math teacher), 2018

3) Ripe ears of hay and snow-covered Etna in the background, due to the climate change

Author: Marinella Calabrese (Math and physics teacher), 2019

4) The decrease in the water level in natural lakes and the consequent aridity of the territory due to climate change

Author: Marinella Calabrese (Math and physics teacher), 2017

5) Stromboli, Eolian islands

Author: Valentino Coco Physical Education teacher, 2018

Eruptions impact on the Enviroment and way of living

6) Mediterranean Sea.

Author: Carmelo Greco (Science Teacher)

Migration of Barracuda from Red sea due to marine heating

PORTUGAL

1) Sea action on the cliff in Albardeira beach.

2) Erosive action of water in limestones

3) Ria de Alvor - reduction of sand due to rising waters and currents

4) Bird reserve - at risk due to human action

SPAIN

1. Author: Dario Sancho (partner). Standing water in agres, now there are less rainfalls

2. Author: Guadalupe Conejero (Educational consulting). Spring in february? In Biar.

3. Author: Inma Albero (mother of a student). Vineyards in beneixama.

4. Author: Inma Albero (mother of a student). Snow is getting less common

5. Author: Inma Albero (mother of a student). What will the rainfall decline bring about?

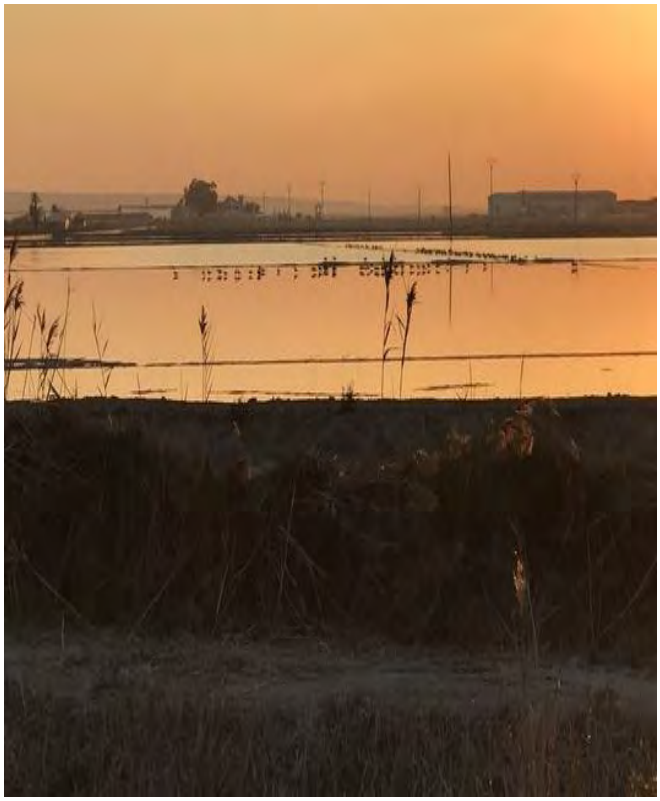
6. Author: Luis Antón (Physics teacher). Aqueduct over the dry river.

7. Author: Maria Ortín (student 17). The dangerous parasites are becoming increasingly frequent.

8. Author: Olga Cerdà (student 15). A world without bees, the end of the world.

9. Author: Virtudes Mollà (student 17). Humidity miracles, will they disappear?

10. Author: Rosa Guill (Art teacher). Salines de santa pola and the environmental balance.



VISITING ENVIRONMENT-FRIENDLY COMMUNITIES AND TOWNS OR BIO FARMS OR URBAN GARDENS

BULGARIA

Students visited Gimel bio-greenhouse where they were introduced to the organic production of vegetables. Then, at Nanosky nursery, they were able to see the different kinds of plants used for landscaping and were treated with delicious locally produced strawberries by the warm and hospitable hosts.

ESTONIA

In Estonia this activity did not take place unfortunately because in autumn 2019 the Lilleoru Eco Center could not receive groups and in spring 2020 due to corona outbreak the school trips were forbidden.

FRANCE

French students met the association CompoStra. This association is managing several places of compost in the city center of Strasbourg.

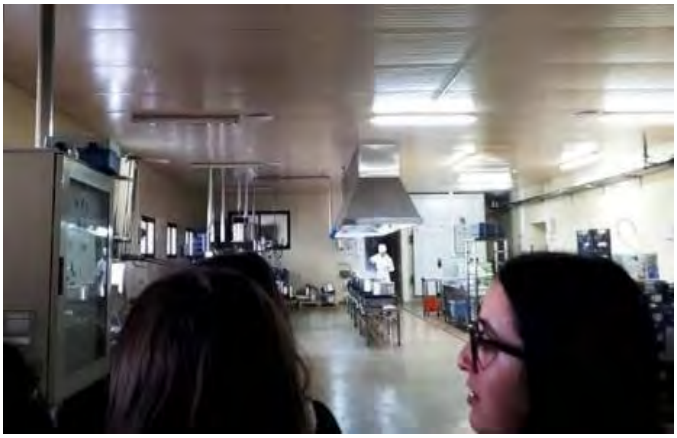
French team visited the Farm of Jean-Philippe GOOS in the little village of Blaesheim (15 km in the south of Strasbourg). Jean-Philippe GOOS is a producer of fruits (apple) and he produces his own apple juice or different kind of apple and fruits juices.

ITALY

On the 5th day of the mobility held in Catania , Italy students and teachers visited the Botanical garden " Nuova Gussonea".The botanical garden was created to allow studies , introduce and safeguard the flora and vegetation of Etna and inside it is organized so that the different plant communities are distributed as happens in nature. In this way the volcanic landscapes and other environments typical of the Sicilian vegetation are reproduced in miniature.

PORTUGAL

Quinta do Freixo: The products of this facility are all handcrafted, without adding any preservatives and made with the products of the farm located in the interior of the Algarve.



Social Gardens in Loulé provide the most deprived citizens with the possibility of growing organically and sustainably and enjoying fresh agricultural products.

SPAIN

Tuesday 1 of October, CTM (Earth and Environmental Sciences) and Erasmus+ students of IES Biar went cycling to the Martin's ecologic farm. When they arrived to Martin's farm, he explained them how he works and how his farm operates. Then he made a comparison between his farm and other type of fields in conventional agriculture. In this way, Martin doesn't use chemical products; being 100% bio sustainable. Finally, they helped Martin with the transplant of some lettuces, chards and leeks.

PROMOTING SUSTAINABLE TRANSPORTATION

BULGARIA

On 29th September a number of project participants organized a bike ride around the green area of Pazardzhik to promote the use of environmentally-friendly transportation

ESTONIA

In ESTONIA, on the 10th of September 2019, we organized a sport day in Valgerand which is located 8 km from our school. We invited students and teachers to come there by bikes.

SPAIN

Tuesday 1 of October, CTM (Earth and Environmental Sciences) and Erasmus+ students of IES Biar went cycling to the Martin's ecologic farm. While they were riding they could enjoy of the nature as agricultural fields of Biar surroundings. Moreover, they made an environmental effort using an eco-friendly and healthy mean of transport.

LEARNING ABOUT ECO-ARCHITECTURE

BULGARIA

A lecture on ecological trends in contemporary architecture was given by the architect and school alumnus Dimitar Buyukliev. Feedback and reflection on all the activities was also done.

ESTONIA

In October and December 2019, the Estonian school had lectures and workshops by landscape architect Kadri Maikov who spoke about the concept of the healing gardens.

SPAIN

Azalea's team held a lecture and workshop about sustainable Architecture. During the competition period at Solar Decathlon Europe 2019 Azalea's team was awarded with the first position in Architecture, one of the most important categories. Moreover, the team won the second award in Energy Efficiency and the third in Engineering and Construction. We are really proud of our Barraca, keep reading and find out every detail.

We had prepared an Azalea's team lecture about eco Architecture for 26/03/20, but it was cancelled by COVID -19. We will try to do it in Autumn. (here you have the poster of the lecture)

Azalea's team from the Polytechnic University of Valencia was awarded at the Solar Decathlon Europe in Hungary. Azalea's team was awarded with the first position in Architecture, one of the most important categories. Moreover, the team won the second award in Energy Efficiency and the third in Engineering and Construction.

Traditional and sustainable architecture in our countries

BULGARIA

Residential construction

At the end of XIX century the houses were made by self-taught craftsmen.

The houses were fenced with high fencing walls, which provided protection for the owners. In the towns the houses had 2-3 floors. The first floor was from stone. It served as a basement.

The second floor was made from wood. There were a lot of windows, which were projecting to the street and they made the room more spacious. This specific projecting is called “erker”. From the outside it was held by curved wooden beams. To get to the second floor you would have to take the outside wooden stairs, which were positioned at the front side of the house.

Bulgarian houses in XIX century.

All those little details and ornaments on the balconies and rooftops give a feeling of the impassibility of time, in which no one was in a hurry. The buildings inspire calmness, confidence and aristocracy, and in fact some of them appeared shortly after the First and on the verge of the Second World Wars. And yet their appearance suggests nothing of the stress of those hard times throughout the years.

This house is made out of bricks and stone – ecological materials. The first floor is dug in the ground about 1.5 meters. The first floor was used for storage of food and instruments. It was often turned into a barn for the animals because the heat of their bodies and breathing basically made a floor heating.

Preserving the Bulgarian traditions in the construction of single-family houses through the use of Renaissance elements: verandas and bay windows. ruction of single-family houses through the use of Renaissance elements: verandas and bay windows.

ESTONIA

ESTONIAN TRADINIONAL LOG HOUSE

The Estonian farmhouse has a unique architectural style that differs fundamentally from similar buildings in neighbouring countries.

Its evolution is connected with the Estonian winter rye becoming a staple **cereal grain grown** in our fields and an agrarian tradition dating back some **4,000 years,** with the **threshing barn and dwelling house under the same roof.**

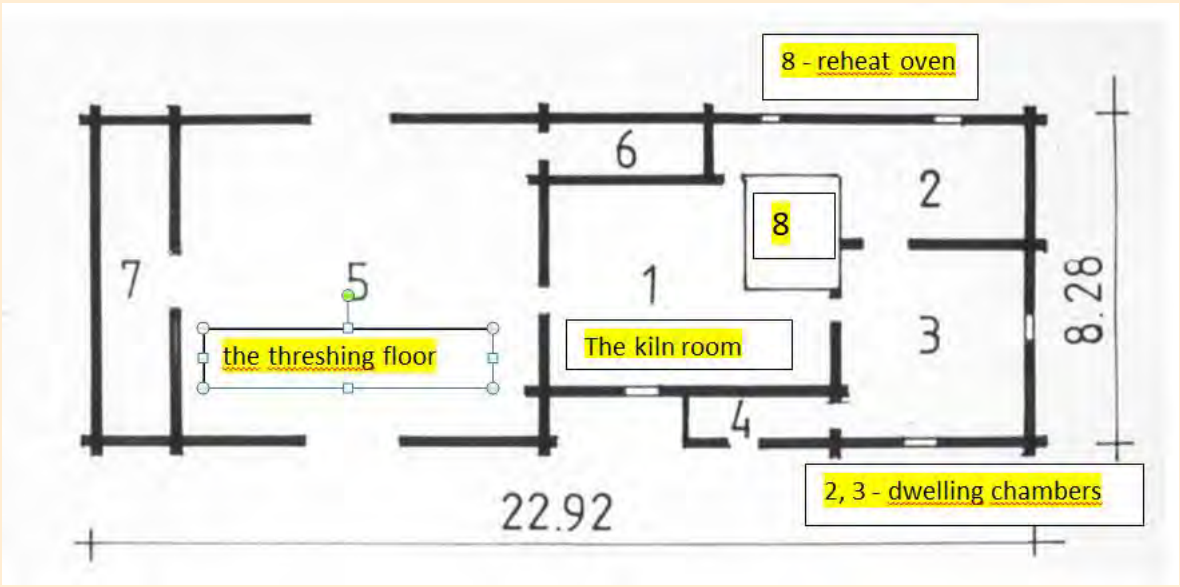
The form of a traditional 19th century farmhouse is a **long chimneyless building** with low walls of horizontal logs and a **high straw thatched roof.**

The log walls are one third and the roof two thirds of the total building height.

The building has **three sections: the threshing floor, the kiln room, and the dwelling chamber**, which was used as the primary residence during winter.

The kiln room was the only heated room and all indoor activities were carried out there. In autumn it was used to dry grain..

In vernacular peasant architecture, both dwelling houses and outbuildings typically were built of **round logs** until the middle of the 19th century, while hewn logs were used for manors and public houses.

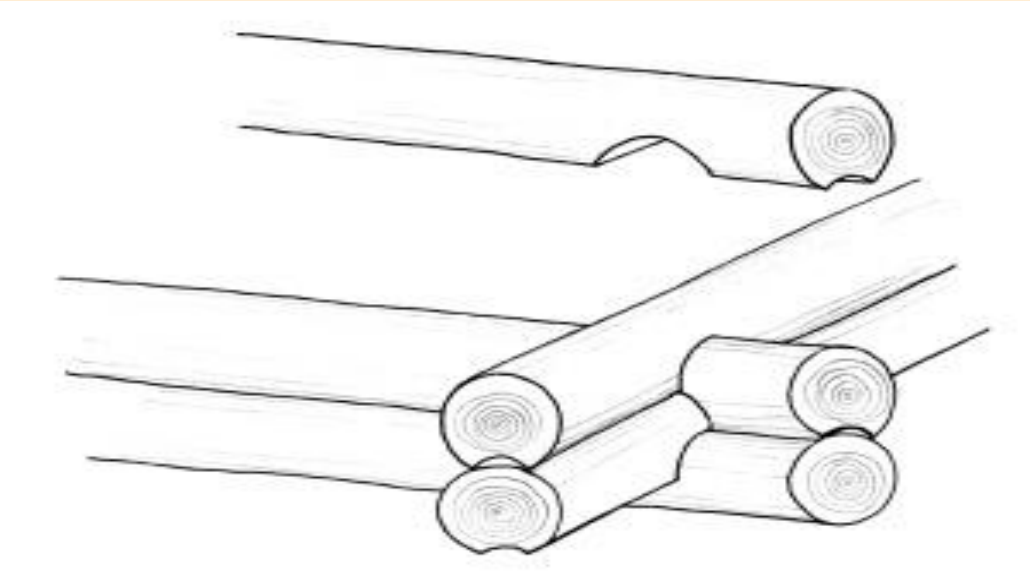


Dowels or keys placed at intervals along the logs helped bind larger walls.

To keep walls in plane at door and window openings, plank jambs (tender) were grooved into log ends at the openings. Side jambs typically cut 5 percent short allowed wall logs to shrink and settle.

Log diameters varied with building type. For houses and barns it was generally 7 to 10 in. In the traditional full- scribe procedure, not always used today, the corner joint (neck) was scribed first and then, once the logs were in proximity, the bottom of the upper log was grooved and scribed to fit the lower.

Joinery Estonian carpenters employed a wide range of lapping joints to bind the corners of their buildings. Though the topic warrants fuller treatment, here we show the most nearly typical corner joints, in order of historical development.



Foundations were generally primitive, with walls supported by piers of quarried stone, infilled with loose stone, rubble, clay or sand. Often outbuilding foundations were not infilled at all.

After the second part of the 19th century, lime mortar use became widespread even in rural areas, and henceforth the quality of the foundations increased and the lifespan of the buildings lengthened.

Birch bark served as a barrier against damp between the first log and the stone foundation.

The threshing in the threshing room

It was not until the middle of the **19th century** when the **peasantry's lifestyle changed as they became independent from the manors.**

The biggest innovation of that time was the construction of separate houses from the a threshing house or barn dwelling.

At the same time, the threshing house, which had remained unchanged for centuries, was also significantly upgraded and improved.

The kiln room with heating reheat oven and smoke floating out the window

An essential innovation was the heating system and with it the associated use of space - the construction of *stoves with chimneys (since 1820), creation of a separate kitchen space and construction of a stove with a wall and chimneys to warm* the chambers.

The most important of the external changes

were that the **thatched roofs were replaced with chip**

and shingle roofs,

the log parts of walls of **the chamber section were lined with boards,**

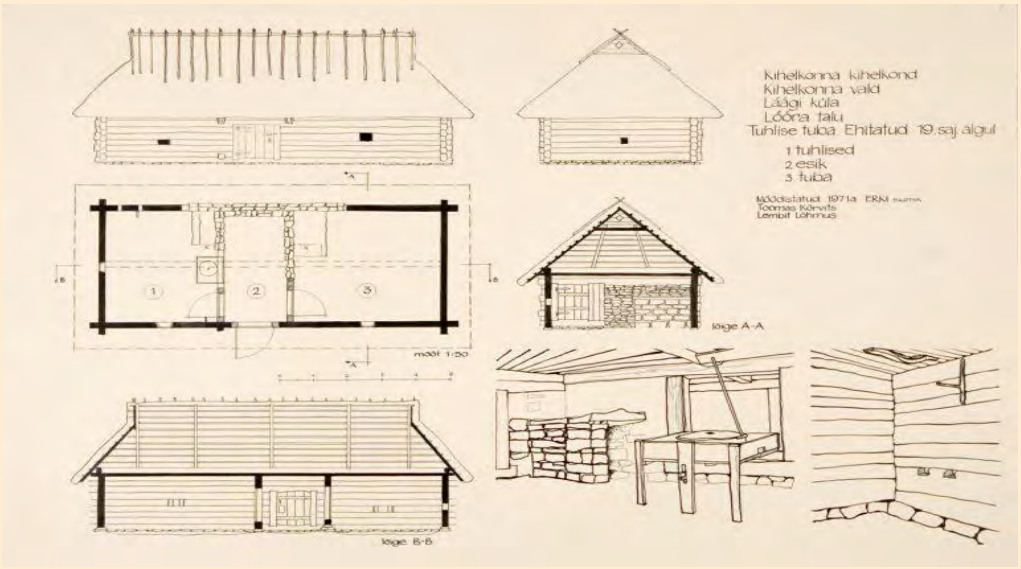
small entrance halls or verandas were added,

the number of chambers was increased and they were improved.

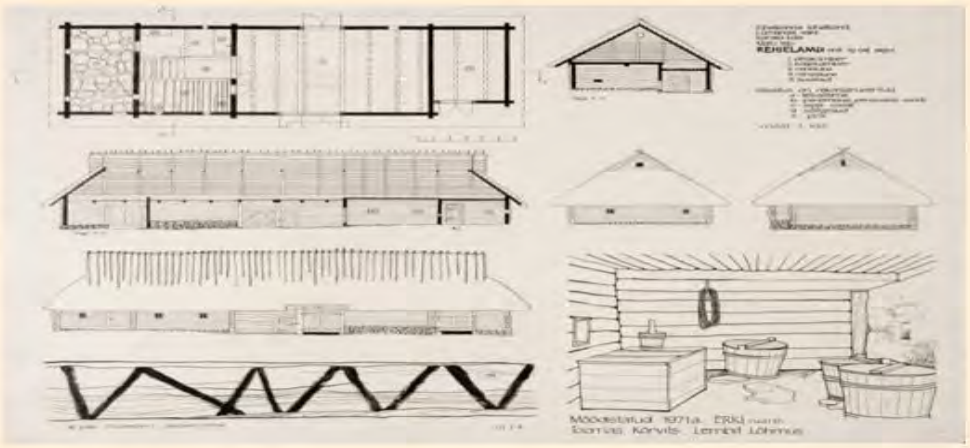
The traditional threshing house was upgraded internally and externally, but retained its proportions and architectural appearance.

It has remained viable alongside the separated dwelling throughout the 20th century until today

Outbuilding for cooking potatoes

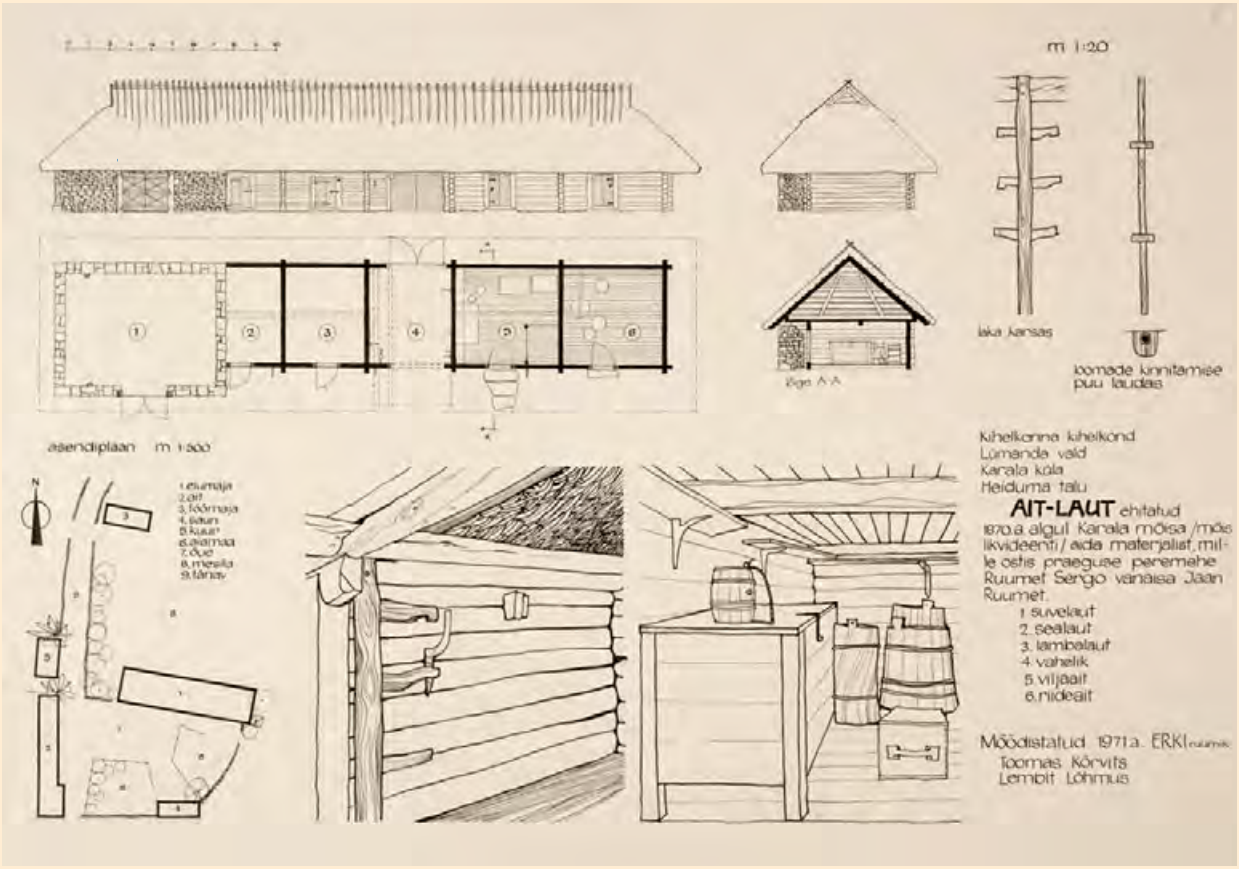


Outbuilding for cooking potatoes



Log house

The Kattle shaid

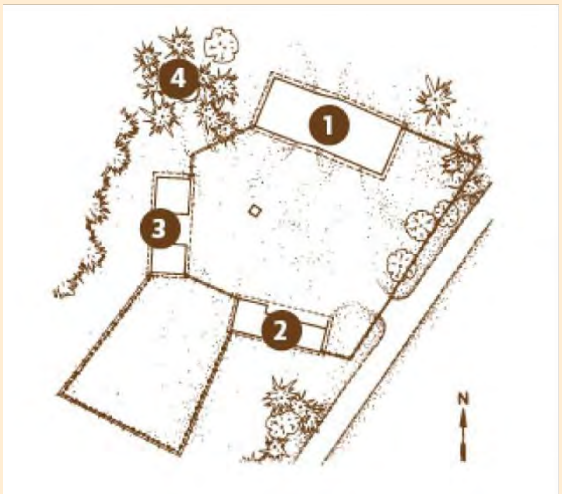


Farm buildings

There were several buildings attached to the farm.

Sassi-Jaani farm

1 - barn-dwelling; 2 - storehouse; 3 - cattle-shed; 4 - the summer kitchen belonged to the farm buildings



SUSTAINABLE RENOVATION OF TRADITIONAL ESTONIAN FARMHOUSE

RESIDENTIAL CONSTRUCTION IS BEING DEVELOPED IN HISTORICAL VILLAGE CENTERS OR BY BUILDING ON FORMER FOUNDATIONS.

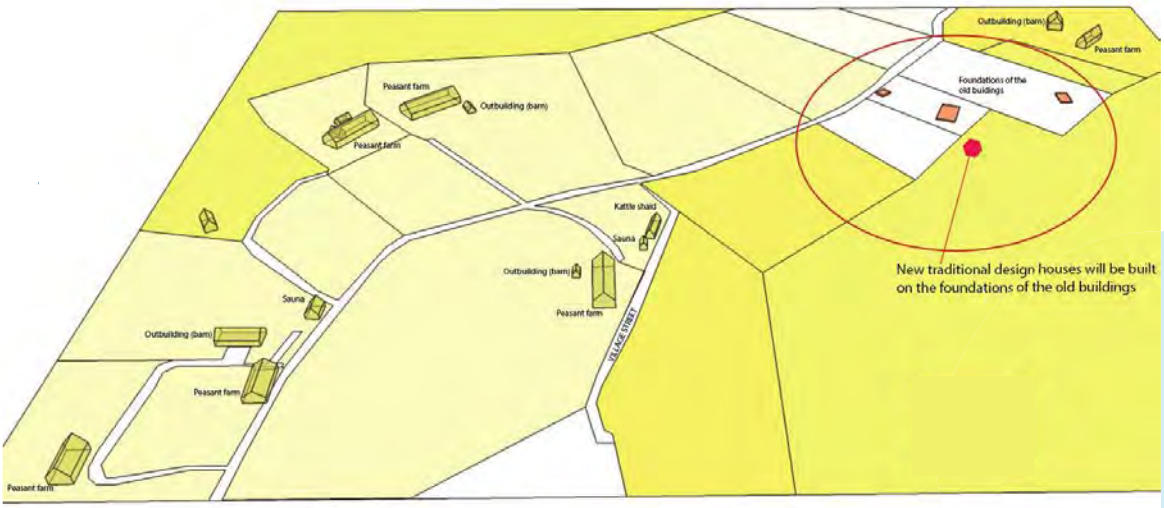
SUSTAINABLE RENOVATION OF THE VILLAGE MUST PRESERVE ITS UNIQUE NATURE, OLD STONEWALLS AND THE TRADITIONAL STREET NETWORK. THIS ENABLES TO REVIVE VILLAGE LIFE AND RESTORES AND PRESERVES A TRADITIONAL LIFESTYLE BY MIXING THE NEW AND THE OLD.

Old peasant farms and gardens and orchards
New traditional farmhouses,
Cattle shades, barns and saunas,
Common room with a campfire site for the village community,
Swings and other playing equipment are provided for the children
Eco farms and organic product store and the farm market,

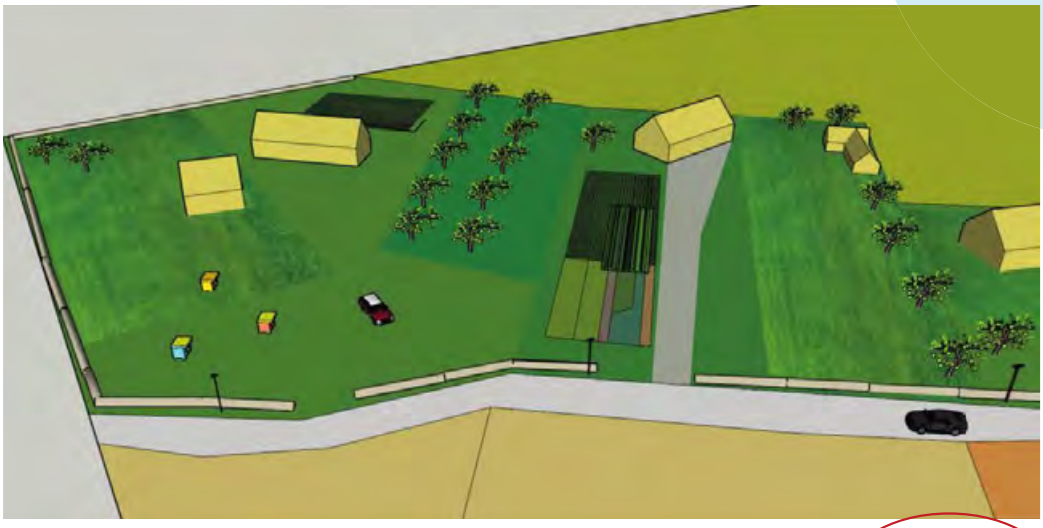
Community center for meetings and activities,
Courses about renovation work,
Community activities "Teeme ära!"/ , "Let's do it!"
LED solar panels lightning for the village streets;
Photovoltaic panels for energy,
Traditional eco-materials,
Rainwater collector,
Recycling and compost pins.

OGET
Our Green European Town

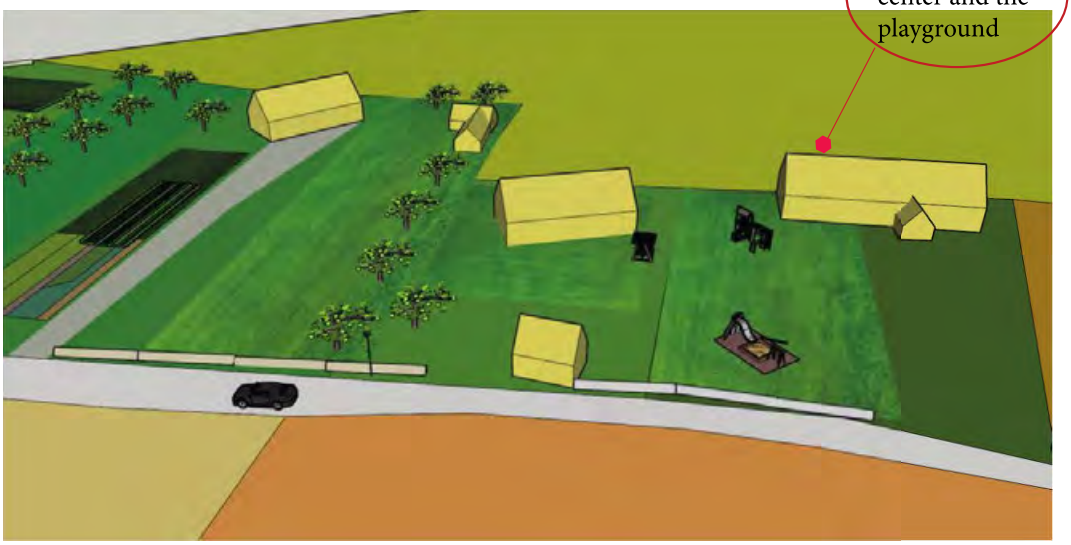
Co-funded by the Erasmus+ Programme of the European Union

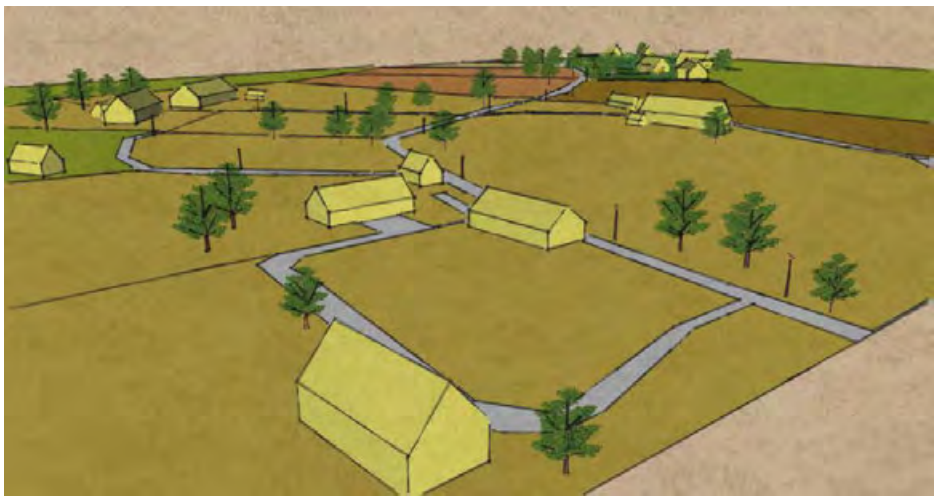


Partial map of the old village of Pikavere, Pärnu County, Koonga

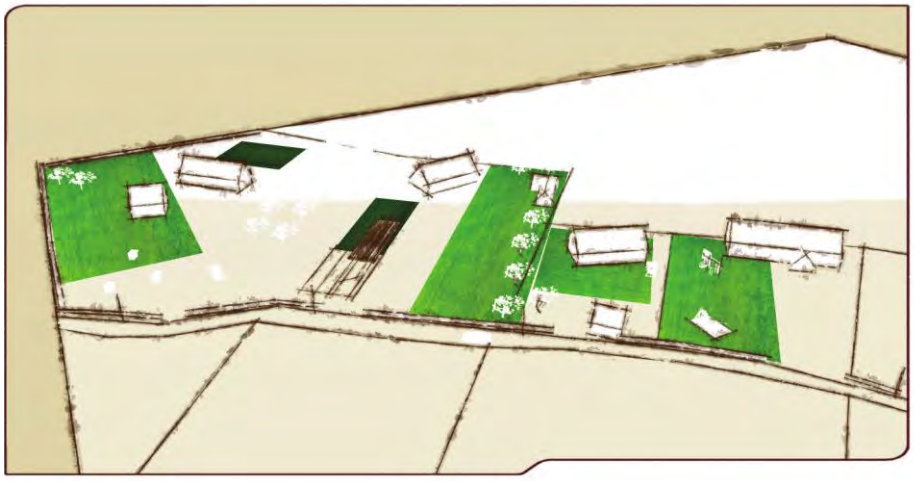


Renovated old farmhouses and new buildings in traditional style

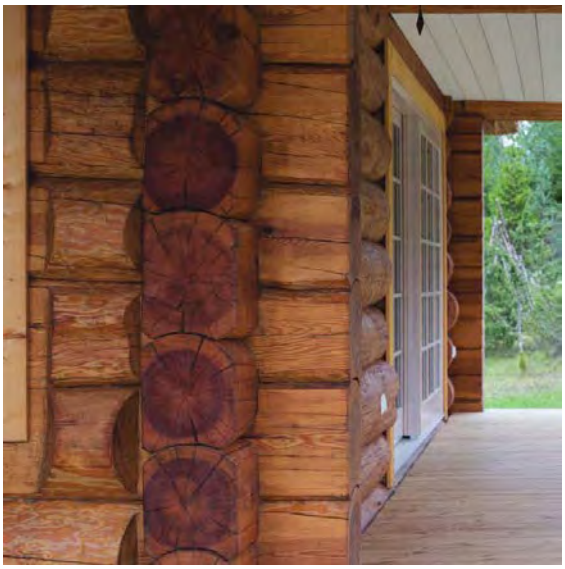




Look to the village in Assorted Styles



Look to the village with new renovated and built houses in Style Builder Competition



Modern log houses, traditional eco-materials and techniques fit well into the old village landscape

Eco farm's organic products, herbal cultivation and the farm market

Solar energy station, Photovoltaic panels for energy and LED solar panels lightning for the village streets

Rainwater collector,

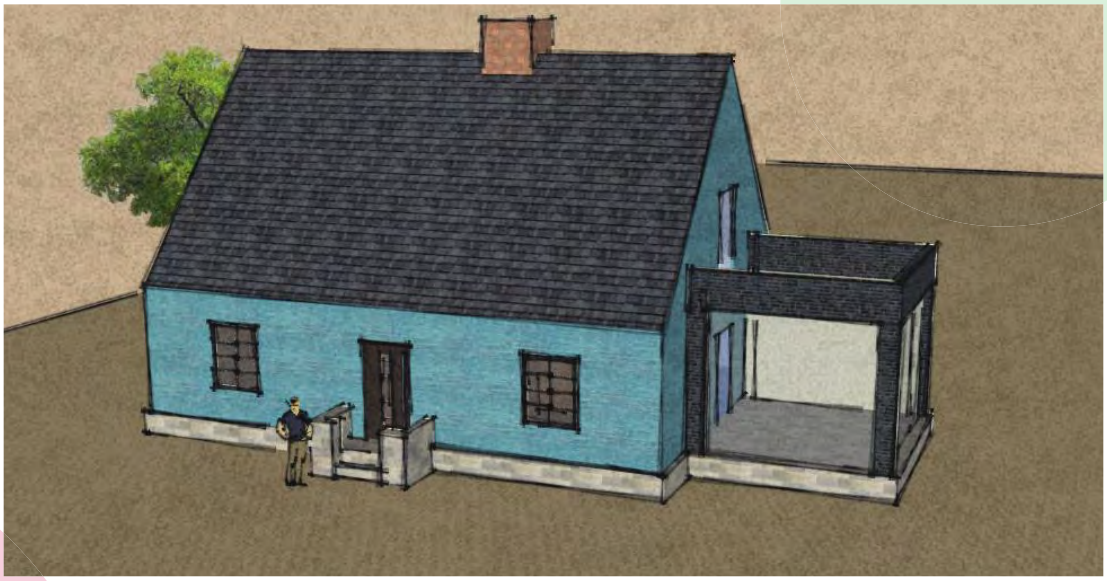
Recycling and compost pins

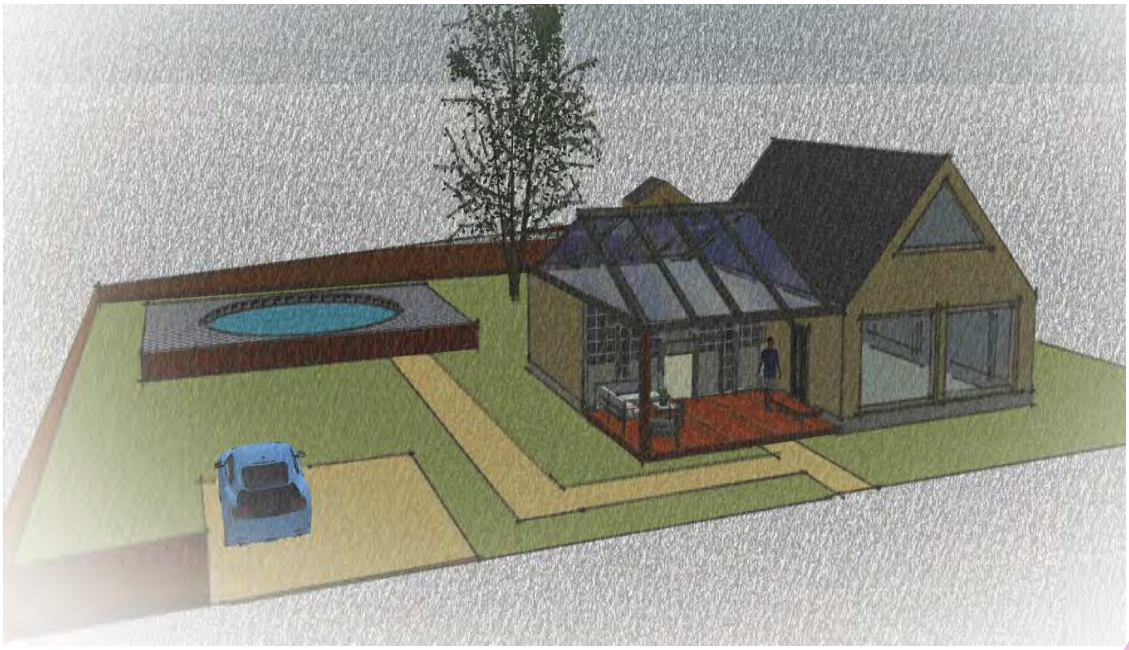
Old peasant farms and gardens and orchards

Country houses - country manor houses in the beginning of 20. century, 20-30ties

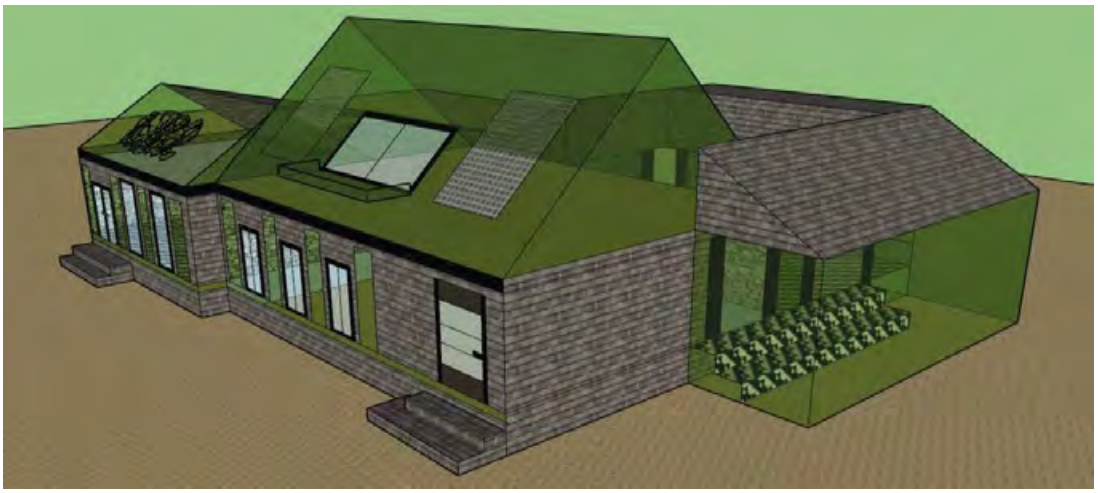
In Estonia wealthy and spacious dwelling houses that have been built apart from the ranch houses are called **country manor houses.**

Some examples of students works - inspired of country manor houses.....





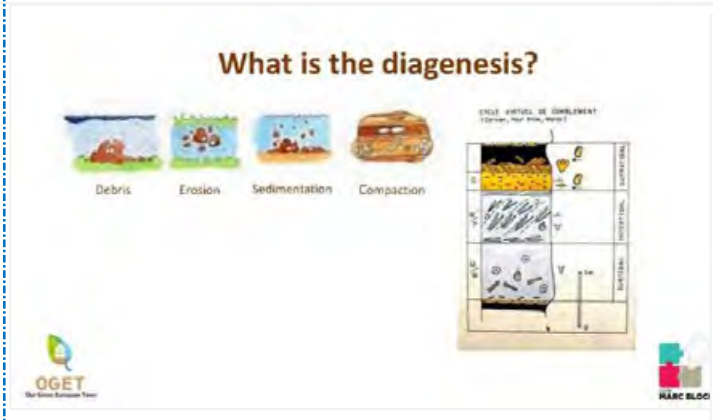

Mona Saksladu maja



FRANCE

Traditional and local architecture in Alsace (France):

- Pink sandstone from Vosges mountains
- Neustadt district – Strasbourg
- Half-timbered houses - Alsace



Where to find it?

The continental domain

The marine domain

Its equivalent...

Pink sand

Where to find it locally?

Vosges mountains

Its use

Palace of Jaipour

Pink sandstone monuments in Strasbourg

Cathedrale of Strasbourg

Consulat of Turquey, Strasbourg

Pink sandstone monuments in Strasbourg

Saint Paul's Church, Strasbourg
76 meters high
The architect is Louis Müller

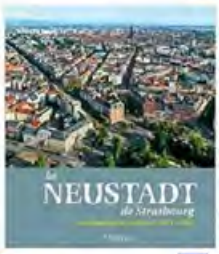
Thermal power plant, Strasbourg

Pink sandstone monuments in Strasbourg

Saint-Pierre-le-Jeune Church, Strasbourg

NEUSTADT DISTRICT
\\ STRASBOURG

Neustadt district



Neustadt district: localisation

France
Alsace
Strasbourg
384 hectares

Specific buildings of the Neustadt district

Palais du Rhin

Localisation: Place de la République

Former palace of the German Emperors

Build: 1883 - 1888

Architect: Hermann Eggert

National Theatre of Strasbourg (TNS)

Localisation: Place de la République

Former Parliament building of Alsace-Lorraine

Build: 1888 - 1889

Architects: Michel Saint-Denis & Pierre Sanrel

National and University Library (BNU)

Localisation: Place de la République

Build: 1895

Architects: August Hartel & Skjold Neckelmann

University: University Palace

Localisation: Place de l'Université

Inauguration: 1884

Architect: Otto Warth

Other realisations for the university:
- Observatory
- Zoological museum
- Botanic garden

The Grand hall or Aula

Hôtel Brion or Villa Brion

Localisation: 20 Rue Sleidan

Inauguration: 1904

Architect: Auguste Brion

Style: Art Nouveau

Built by Auguste Brion for himself

Wrought iron balcony

Garage door

Villa Schutzenberger or Hôtel Schutzenberger

Localisation: 76 Allée de la Robertsau

Build: 1897 - 1900

Architects: Julius Berninger & Gustav Krafft

Style: Art Nouveau

Built for the owner of the Schutzenberger brewery

St. Paul's Church

Localisation: 1 Place du Général Eisenhower

Build: 1892 - 1897

Architect: Louis Müller

Style: Gothic Revival architecture

Religion: Protestant Reformed Church

Saint-Pierre-le-Jeune Catholic Church

Localisation: Place Charles de Foucauld

Build: 1888 - 1893

Architect: Skjold Neckelmann

Style: Romanesque Revival architecture

Religion: Protestant Reformed Church

Typical architecture of the Neustadt district

HALF-TIMBERED HOUSES
\\ ALSACE

Half-timbered houses



« Maisons à colombages » or
« Maisons à pans de bois » in French

History

Roman antiquity
Used in France from the Middle Ages (19 century)
Renaissance
More Stone
The style in the 17-18 century

Materials

Wood

Wattle and daub

Plaster

Moellons

Wattle and daub „Torchis“ in French

Water

Clay

Straw

Method and technique



Sustainable architecture (buildings, ecodistricts) in France :

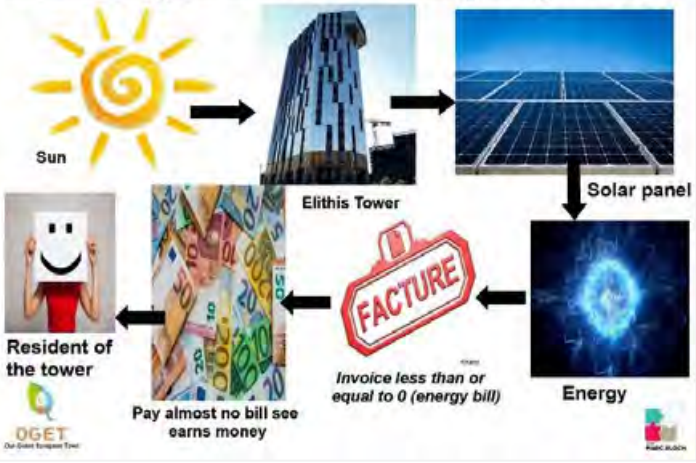
- Elithis Tower - Strasbourg
- Jules Ferry building - Saint-Die
- Eco-district Danube - Strasbourg
- Eco-district Les Rives du Bief - Dijon

Elithis Tower - Strasbourg - France

The projet:

- Building the first positive energy housing tower in the world
- Housing tower category

The objective of the project:



Solar panels:

Technical dimensions:

Roof height: 56.74 m

Surface area: 4,500 m² (living space)

Floors: 17

855 m² of solar panels

The construction:

Construction: 2014-2017

Inauguration: 2018

The project is supported by:
- The city of Strasbourg,
- The urban community of Strasbourg (CUS)
- The company of development and equipment of the region of Strasbourg (SERS)
- The Alsace Energivie competitiveness cluster

LE PÔLE ALSACE ÉNERGIVIE

sers

OGET

Strasbourg Communauté Urbaine

Urban integration:

- Remembering the port
- Urban culture of the city
- **Commerce nearby**

Tram stop: Winston Churchill C / E
Bus: 30 / N2

Apartments type: T2, T3 and T4

Rental rates:

One two rooms (T2) of 42m²
= 620 € / month

A T3 of 77 m²
= 981 € / month

Apartment renting

A T4 of 90 m²
= 1,134 € / month

66 Apartments

(Elithis society)
Agricultural Credit &
the Caisse des Dépôts

Personal follow-up:

Virtual coach

There is a virtual coach.
Each apartment comes with a tablet.

(Automation)

Elithis proposes to pay a premium to the tenant according to his behavior in terms of energy consumption.
An "incentive for the virtuous use of energy"

(Cash prize)

A life in community:

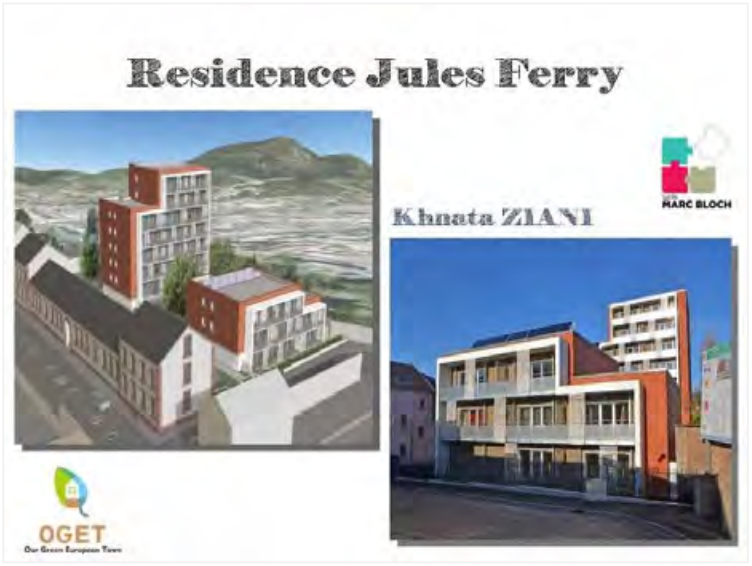
vous informe

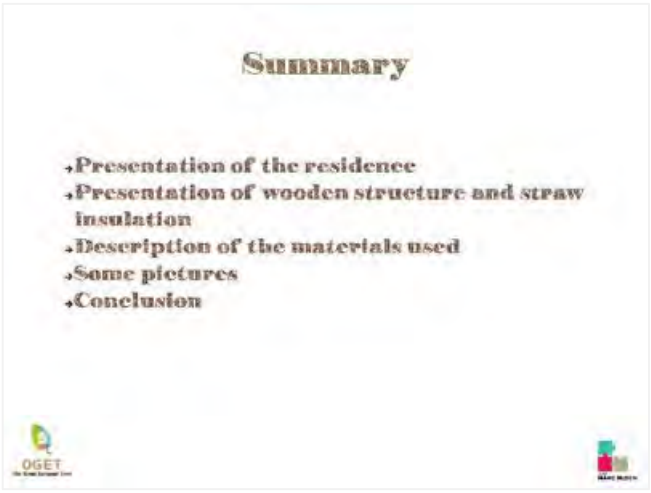
23 juillet, ouverture de votre agence Batigère au pied de la Tour Elithis Danube à Strasbourg.

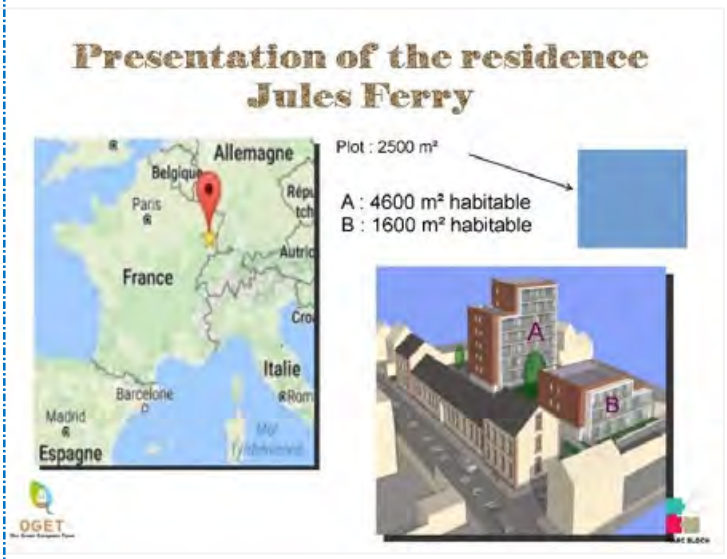
Conclusion:

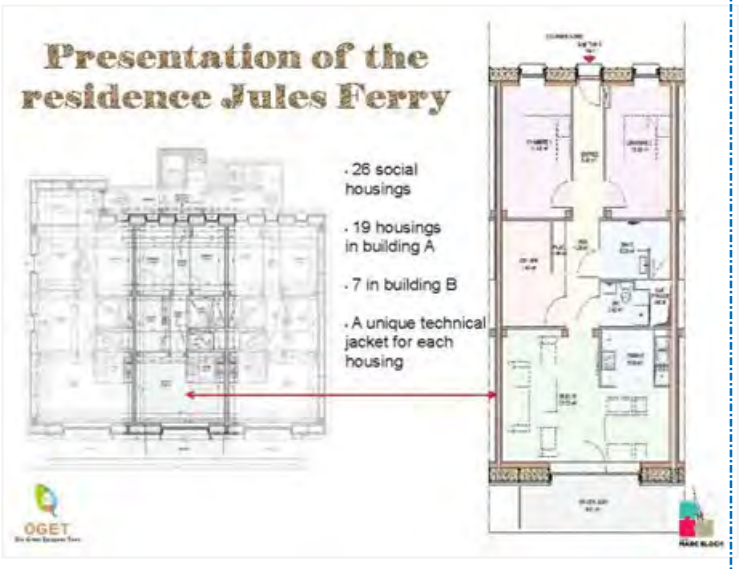
- Think
- Examine
- Design / Build

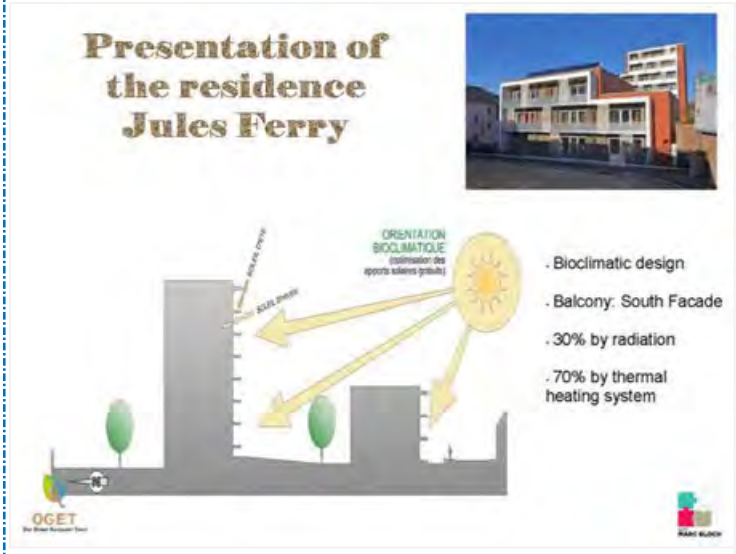
Jules ferry building - Saint-Die - France

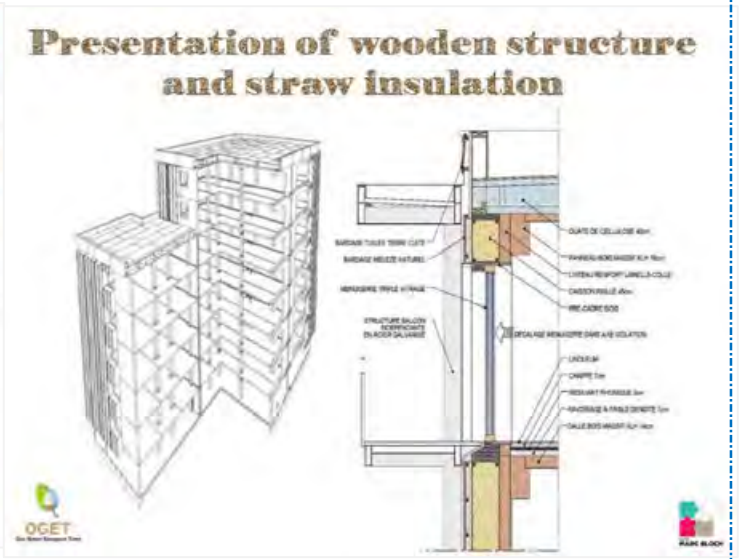




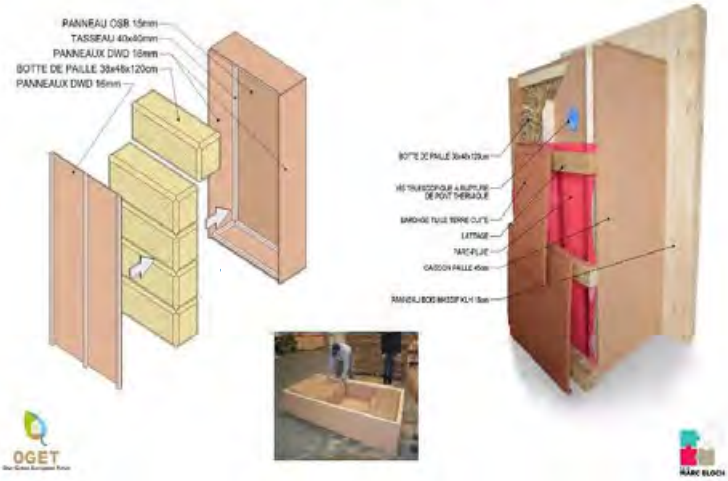






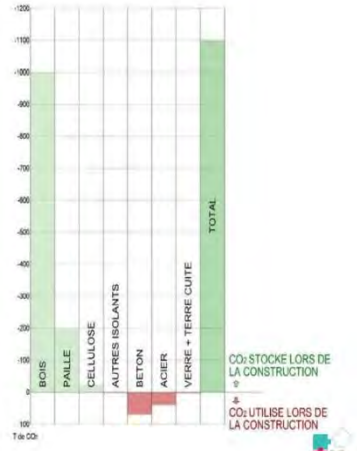


Description of the materials used



Advantages of materials

Thanks to the use of bio-sourced materials, the carbon footprint is positive but if the materials would have been concrete, polystyrene or pvc, the CO_2 balance would be negative.



Some pictures

Some pictures

Some pictures

Conclusion

MAITRE D'OUVRAGE	LE TOIT VOSGIEN	6 rue breuil 88100 Saint-Dié-des-Vosges Tél : 03 29 55 15 10 Mél : contact@toitvosgien.fr
MAITRE D'OEUVRE	ASP ARCHITECTURE	18 rue A de St Exupéry 88100 Saint-Dié-des-Vosges Tél : 03 29 56 86 78 Mél : contact@asparchitecture.
BE THERMIQUE ET ECO-CONSTRUCTION		TERRANERGIE 1 rue du Kemberg 88580 Saulcy-sur-Meurthe
BE STRUCTURE BOIS		INGENIERIE BOIS 1 rue du Marais 67800 Bischheim

Eco-district Danube - Strasbourg - France

Ecodistrict Danube - Strasbourg

OGET Our Green European Town

Alexandre LOUREIRO TAGAIO

MARC BLOCH

Summary

- Location
- Context
- Objectives
- Organisation
- Sustainable
- technologies
- Few dates

OGET Our Green European Town

MARC BLOCH

Location

- France
- Strasbourg

OGET Our Green European Town

MARC BLOCH

Location

- On the line Strasbourg-Kehl

OGET Our Green European Town

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Context

- Old port area
- Size: 6 hectares
- Strategic point

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Objectives

- Reduction of car presence

OGET Our Green European Town

MARC BLOCH

Objectives

- Soft mobility

Objectives

- Open the ecodistrict
- Promote diversity

Objectives

- Green area and protection of biodiversity
- Project in resource-efficient
- Good quality of life

Organisation

Sustainable technologies

- Low building consumption
- Natural insulation
- Recycled materials
- Urban heating

BBC

Few dates

1971: Closure of the gas plant
1999-2007: demolition and decontamination of the area
2008: Creation of the ZAC Danube project
2011-2013: Environmental diagnosis of the area
2014: Beginning of the first building projets
2018-2020 End the ZAC Danube

Traditional Alsatian farmhouse (France)

Farmhouses are typical in Alsatian villages.

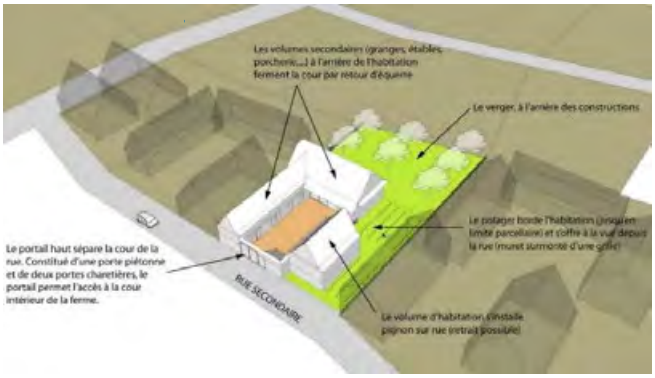
The Alsatian farmhouse was used by farming families. In the Alsatian farmhouses we can find the farmer's house, a large barn to store their crops and an inner yard to park their agricultural vehicles like tractors or other vehicles. We can also find stables in some farmhouses.

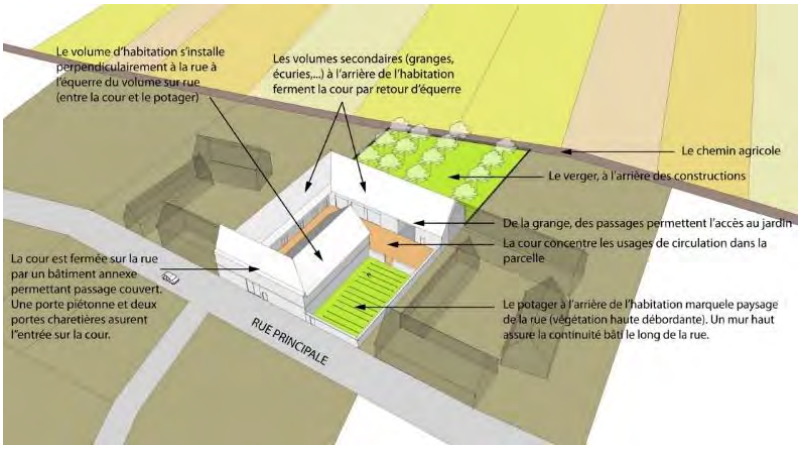
But the problem is the farmhouses lose their attraction over time, because their inhabitants moved to the major city. So they must be arranged to give life again to empty or uninhabited spaces. In fact, farmhouses are no longer used for their original purpose. Now the barn is abandoned, and if the owner can afford it, they will destroy it, or renovate it to turn it just into a lucrative dwelling. If we do nothing, in a few years the Alsatian farmhouses are going to disappear and the objective is to renovate them and to make them more attractive.

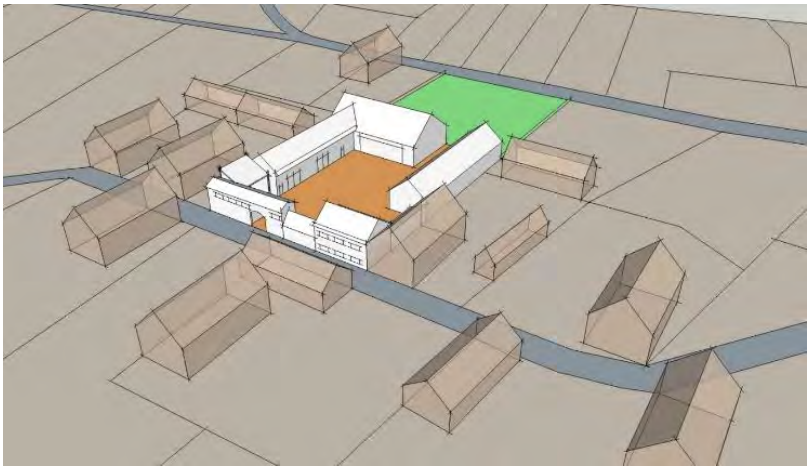
With the extension of the metropolis, some families in their farm house don't need as much space as before.

So some farmers choose to sell one part of their land to promoters or associations who renovate the house while keeping the characteristics of the classical Alsatian farm house that is to say timbered houses and inner yards. The promoters or some associations rehabilitate them, with shops, social housing, associations or professional offices.

Examples of typology of Alsatian farmhouses:





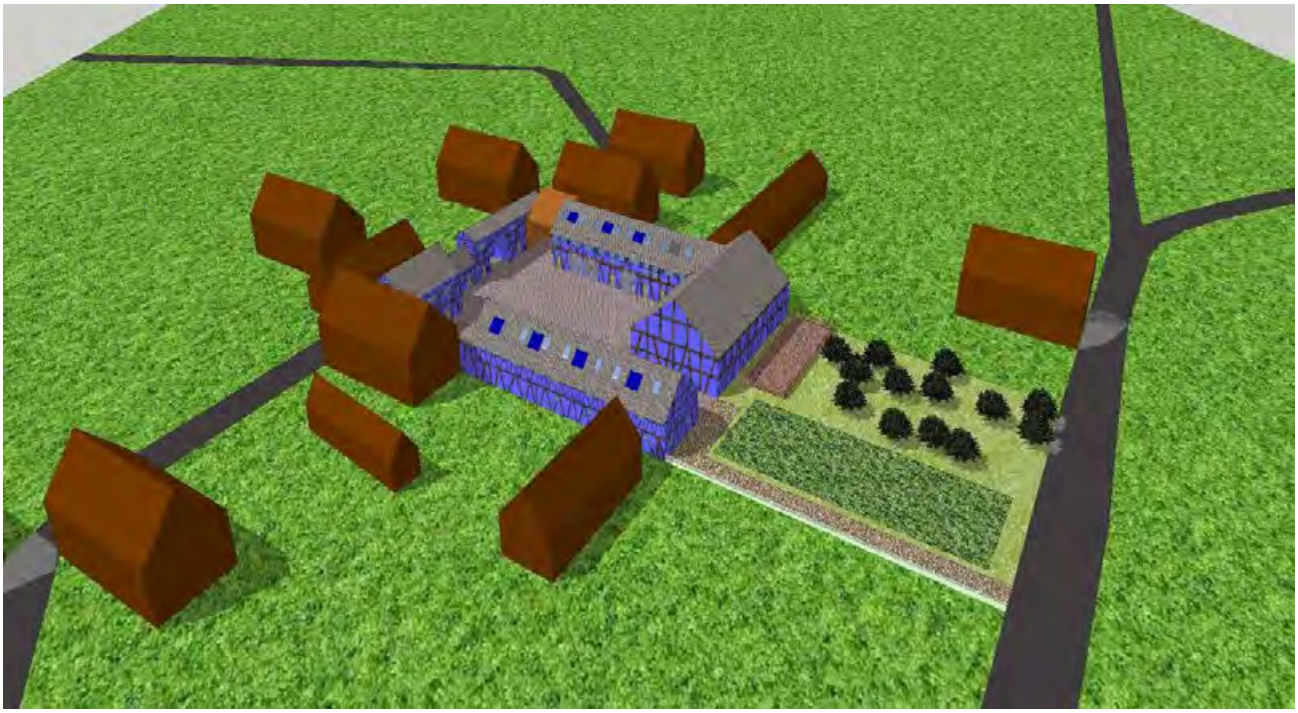


Sustainable renovation of an Alsatian farmhouse (France)

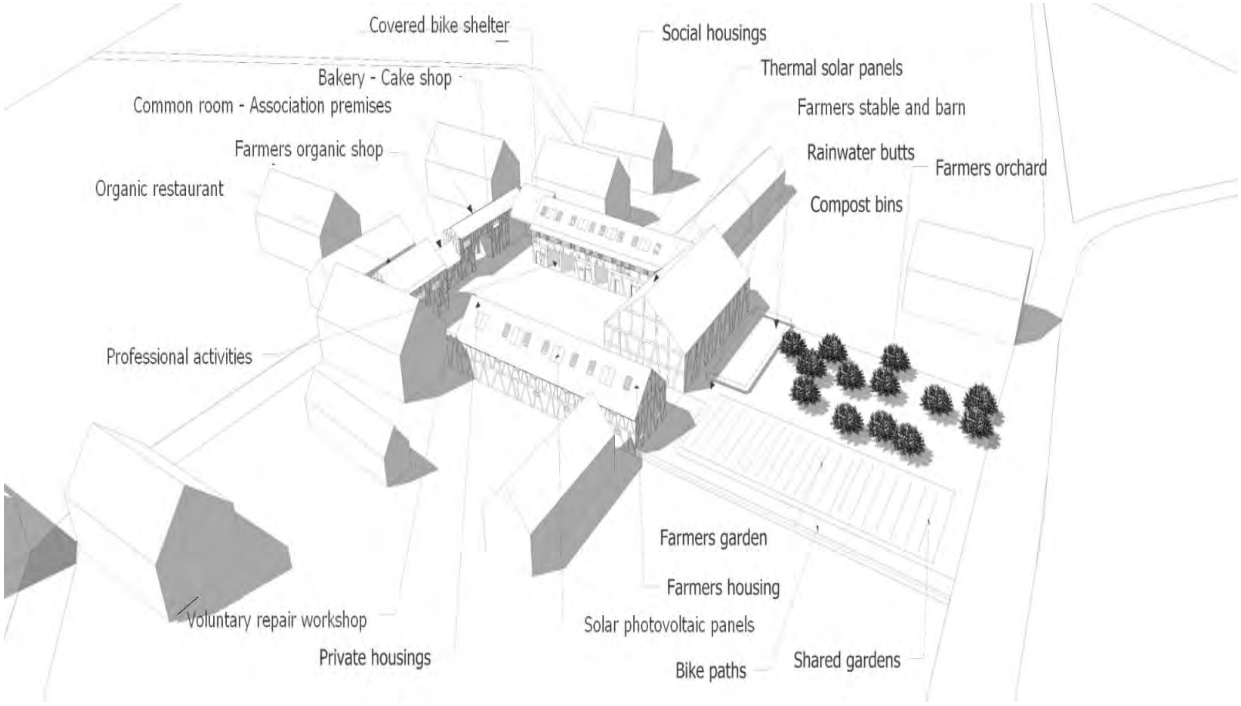
A sustainable renovation of an Alsatian farmhouse can give a mix of different functions and equipments in the same place as:

- Farmers garden,
- Shared gardens,
- Farmers orchard,
- Farmers stable and barn,
- Farmers housing,
- Social housings,
- Private housings,
- Farmers organic shop,
- Bakery - Cake shop,
- Organic restaurant,
- Common room - Association premises,
- Voluntary repair workshop,
- Professional activities,
- Solar photovoltaic panels,
- Thermal solar panels,
- Compost bins,
- Rainwater butts,
- Bike paths,
- Covered bike shelter,
- Eco-materials.

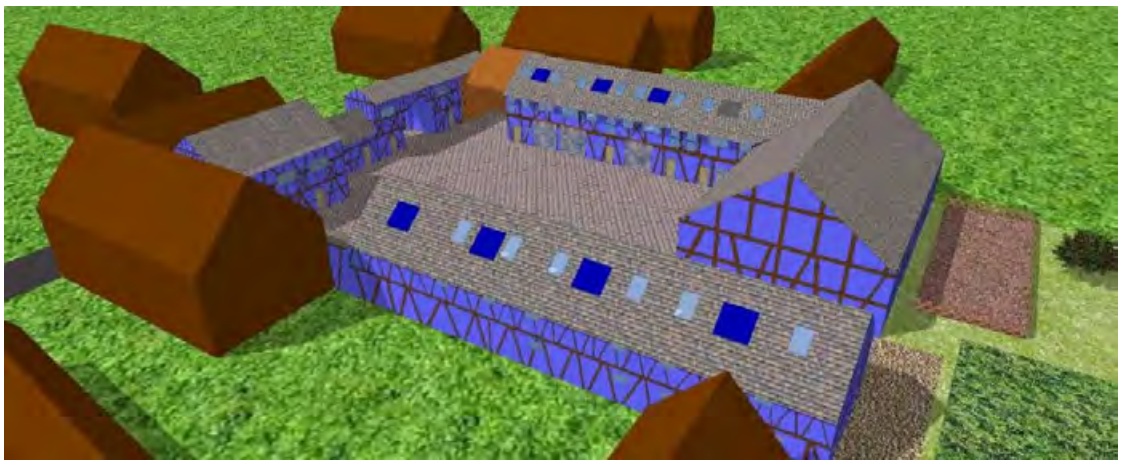
Renovation of an Alsatian farm (Pictures from SketchUp):



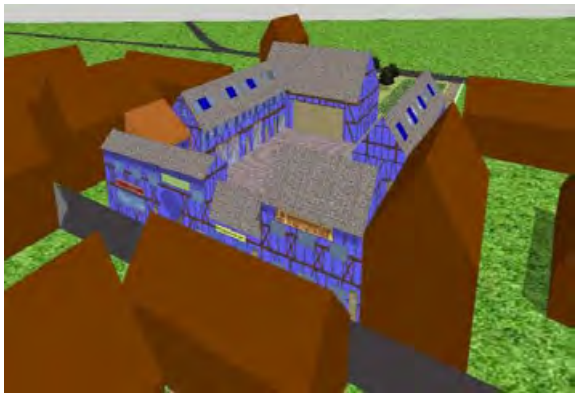
Architectural Design Style



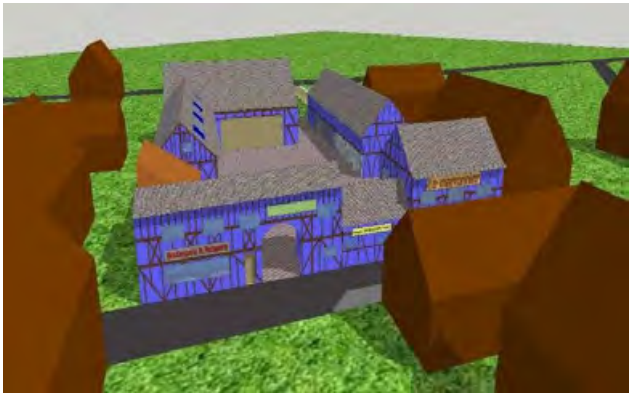
Hidden-line with legend



Inner yard, barn and housings

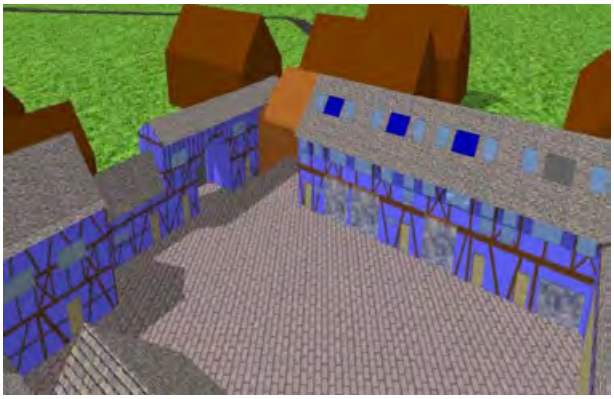


Organic restaurant, organic shop, bakery & cake shop

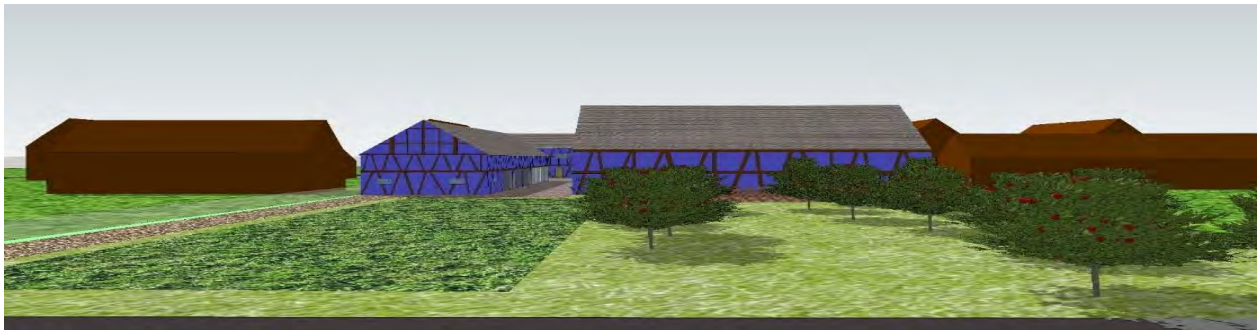


Organic shop, bakery & cake shop

Organic shop, organic restaurant, voluntary repair workshop association premises

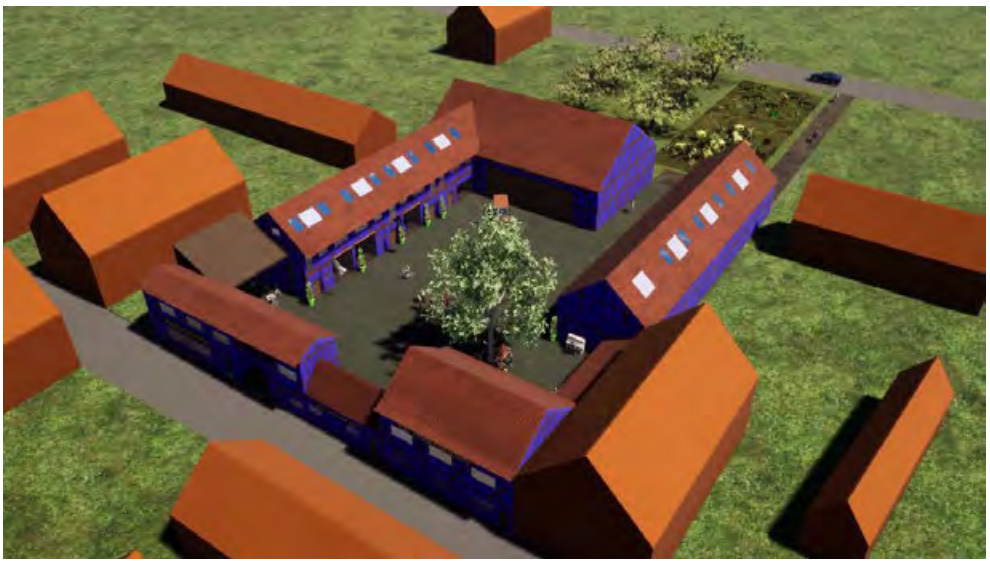


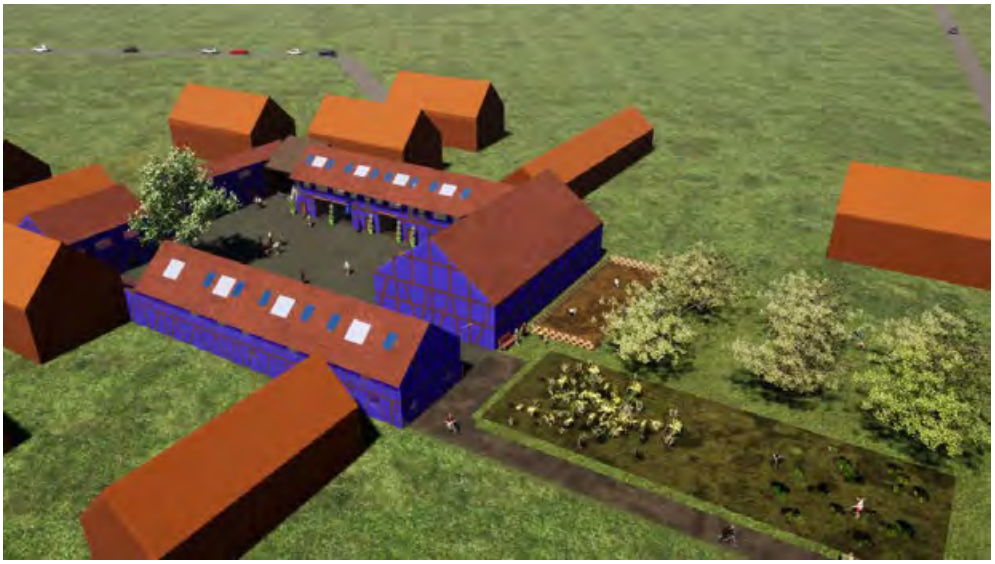
Professional activities, social housings, covered bike shelter, common room

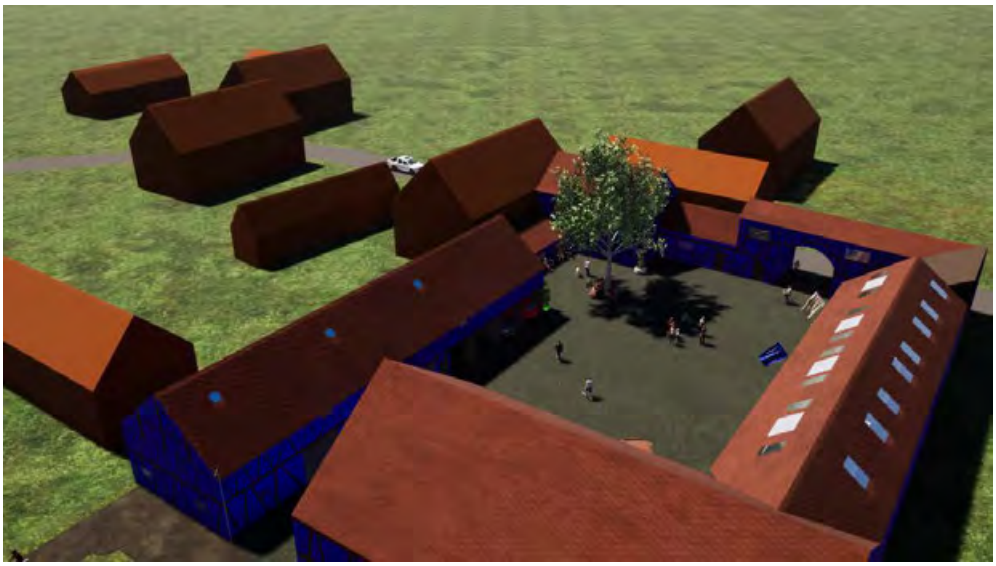


Farmers garden, shared gardens, farmers orchard, farmers stable and barn, compost bins

Renovation of an Alsatian farm (Pictures from Twinmotion):








Boulangerie & Patisserie

ITALY

Raw material used for traditional constructions

Etna Lava stones wall

White stones of Modica (South Sicily)

Pietra Pece of Ragusa

TRADITIONAL BUILDINGS IN CATANIA AND SICILY FROM BAROCCO TO LIBERTY

VILLA CERAMI

PALAZZO SAN GIULIANO

PALAZZO BISCARI

VILLA CLEMENTI

VILLA DEL GRADO

LAVA STONES

Rural houses of Etna:
a perfect example of vernacular and bioclimatic architecture

The basalt stone walls ensure that inside temperature remains more stable during the day, increasing thermal comfort

The used material is coherent with the environment of Etna

Rural house structure is functional to the local environment and climatic conditions

Wall and external façade in south of Sicily (Ragusa and Modica)

LAVA STONES with polychrome decorations

RESTORE OF A TIPYCAL SICILIAN FARMHOUSE

THE MASSERIE in the Hyblean territory

The farms, typical buildings of the Hyblean territory, are rural agglomerations, made up of various stone buildings around a courtyard called baglio. Around the farms there is a network of dry stone walls, to divide the lands into closed fields and to define the mule tracks that connected the housing units scattered throughout the territory.

Inside the farmhouse, the rural buildings were made of local limestone, bound by lime and internally by plaster. Particular attention was paid to the corners of the building with square stones (corner heads) and arranged alternately.

The openings could have a monolithic lintel or an arch expertly carved into wedge pieces with the keystone. The internal walls were made of tabbia, or soft stones with irregular margins.

THE WATER RESERVES

The masseria was mostly equipped with an internal courtyard with a well in the center (if the aquifer was found) or cistern (it collected rainwater from the roofs). In any case, the well consisted of a protective wall (circular or square) so as not to fall inside, it is an iron arch where a pulley was hooked to pull the water.

On the sides of the well there was usually one or more tanks to water the animals, these were carved on a stone block.

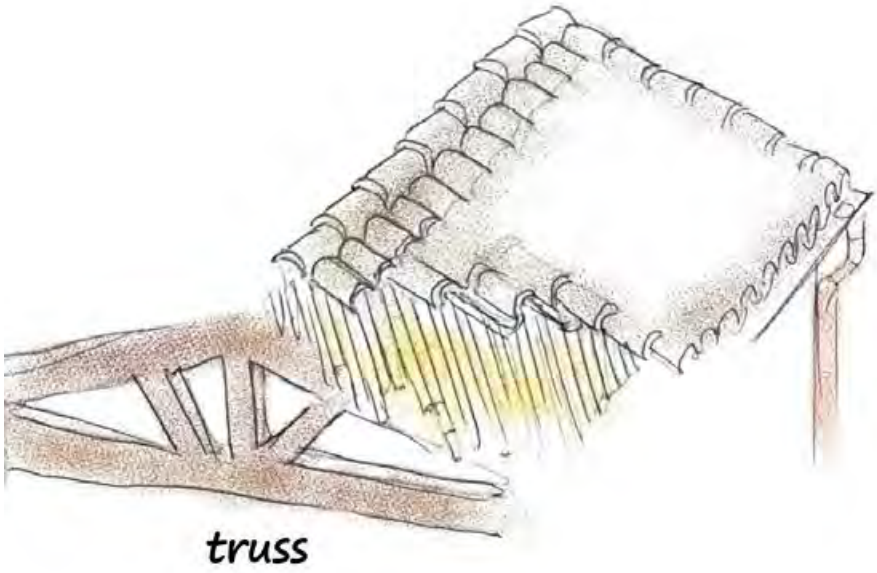
THE COVERS

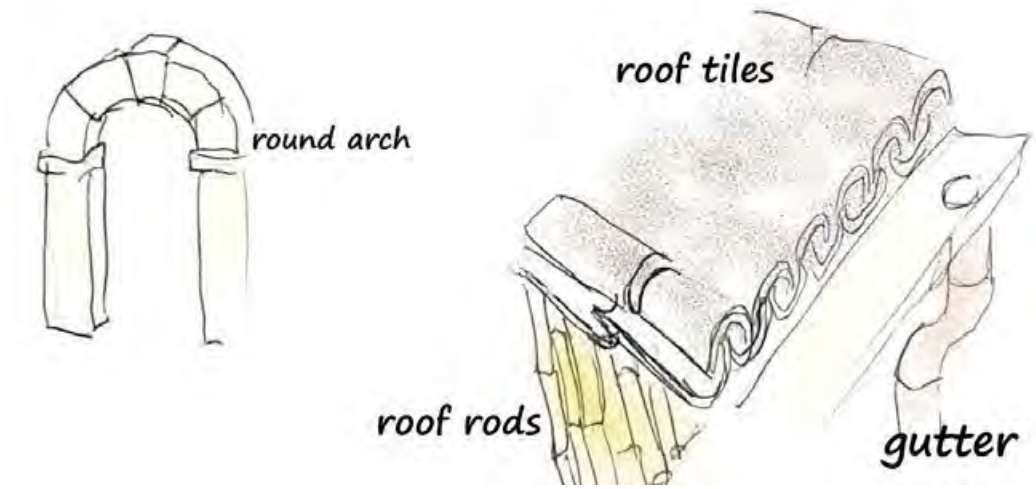
Rural buildings could be covered with one or two pitched roofs.

The latter are called gabled and often require the use of trusses, or a triangle truss system.

For the coverage, materials offered by nature were used, such as reeds, which are found on the banks of the streams. The barrel was an economic element that offered strength and flexibility. Finally, the roof was covered with tiles made of baked clay: waterproof and weatherproof material. With a system of alternating conclave and convex surfaces, it prevented the entry of water into the home.

In the richer houses, the rods joined to the plaster were used for the construction of the vaults that covered the roof structure internally.

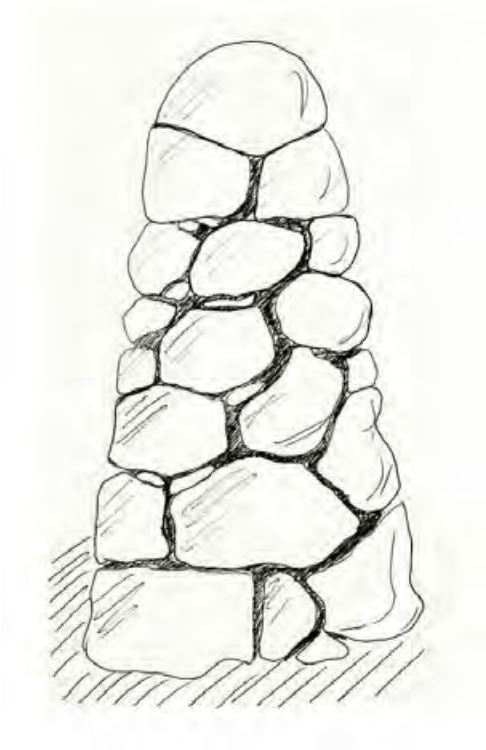




DRY WALLS

The Hyblean territory is characterized by a very strong presence of outcropping limestone. The need to clear the ground for reclamation and cultivation, and to arrange the resulting stones has given rise to a rational and orderly use of the stone that characterizes the Hyblean landscape. The use of dry stone in the Hyblean territory has been documented since prehistoric times.

The custom of enclosing plots of land with dry stone walls began at the end of the Middle Ages, with the concession of the lands of the feudal latifundium, but the phenomenon became relevant only from the mid-sixteenth century.



The new architectural solutions

Respecting the tradition and, above all the territory and its morphology, we can admire numerous and brilliant renovations of old farms, transformed into splendid villas.

The architects have been able to find spatial and structural solutions that combine tradition and innovation, also from an eco-sustainability point of view.

PORTUGAL

In such a small country like Portugal, we have such climate and landscape diversity, which originated a great variation in traditional Portuguese houses.

TRADITIONAL ARCHITECTURE OF ALGARVE, PORTUGAL

chimney
It is the most important symbol in Algarve houses.

roof tile
Clay pieces used to waterproof the algarvian houses.

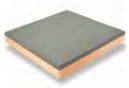
açoteia
Small terrace with numerous functions.

platibanda
Elegant decorative band.

tijoleira
Small tiles used to make the floor of the algarvian houses

cantarias
Stonework, art made with local stone

taipa
In the old days, "taipa" was used as the main construction technique.



The future

Restoration of some of the older buildings in the center of Loulé (Traditional Market and Culture House)

SPAIN

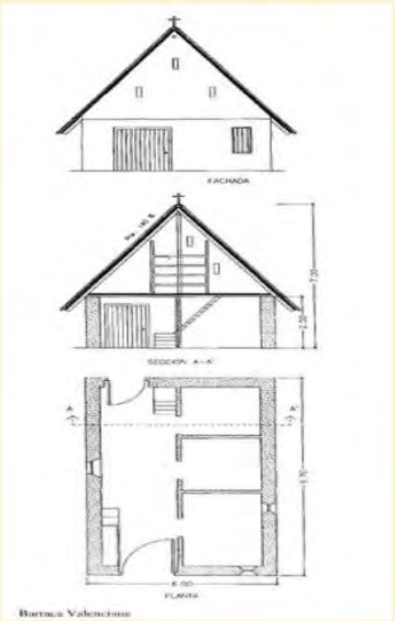
One exemple of a traditional isolated home of Valencian Community. Prospects for the future: BARRACA

Customary garden of Valencia and the Mediterranean coast.

Principal Characteristic:

Roof Angle: to drain the torrential precipitation typical in that area.

Structure



6. ENERGY AND SERVICES

AIR CONNDITIONING AT SUMMER

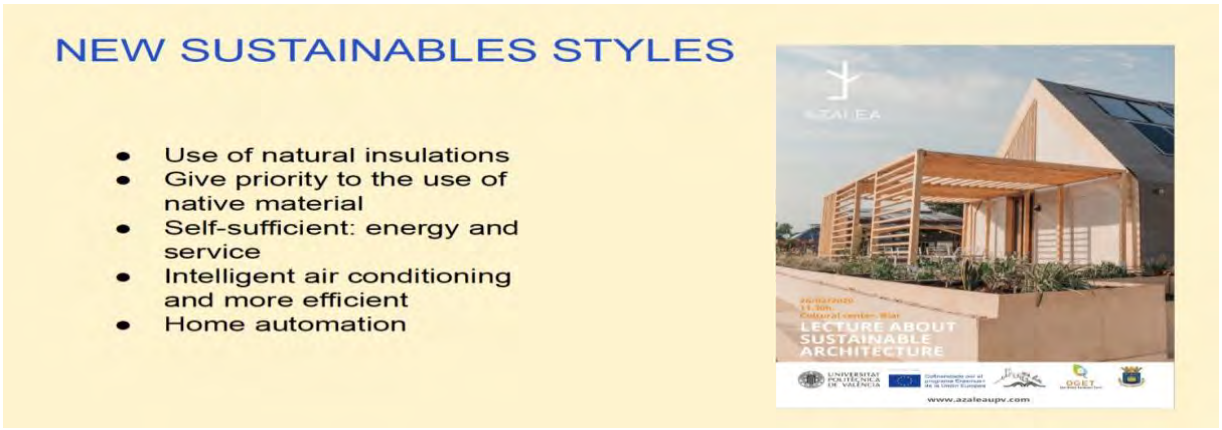
BEFORE
- Natural ventilation

NOW
air conditioning systems by low efficiency heat pumps

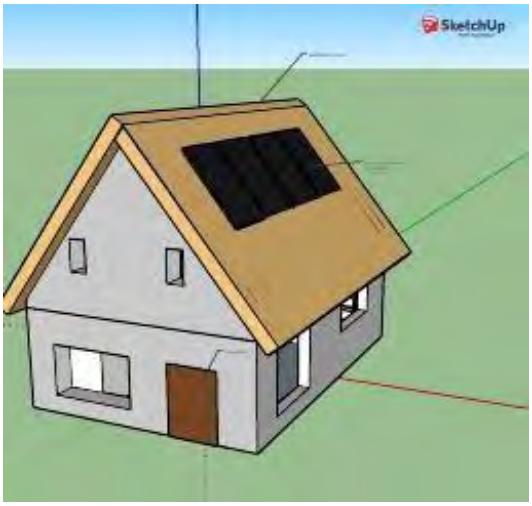
FUTURE
- self-sufficient home automation.
  natural air flow +mixed systems heat-cool.
- Aerothermal or geothermal by underfloor heating.

NEW SUSTAINABLES STYLES

- Use of natural insulations
  LIke cork or the cellulose or coconut fibre
- Give priority to the use of native material
  Like wood, lime, stone, clay or pressed soil (mudwall)
- Self-sufficiency: energy and service
  Energy: photovoltaic and wind
  Water: grey water reuse (split net) and rainwater (cistern storage), autonomous purification of sewage or dry water.
- Intelligent and more efficient air conditioning
  Hot: biomass
  Hot and cold: geothermal, aerothermal
- Home automation
  Electronic remote control and IT systems all around



Our students have studied the characteristics of traditional architecture in our area, analyzing its advantages and disadvantages. Finally, they have made a comparison between past, present and future of architecture.

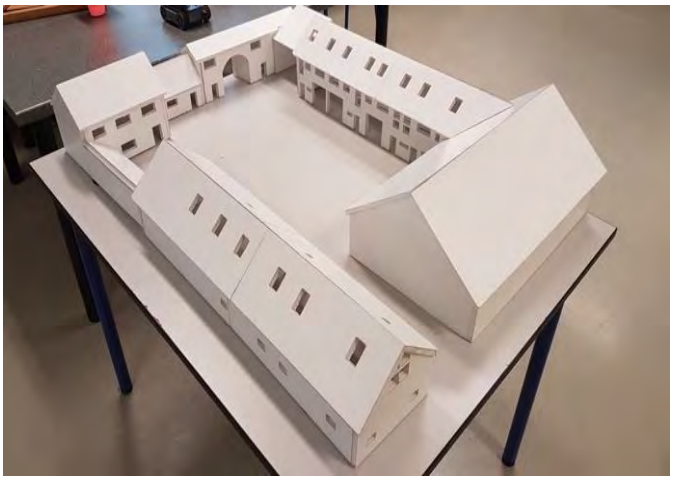


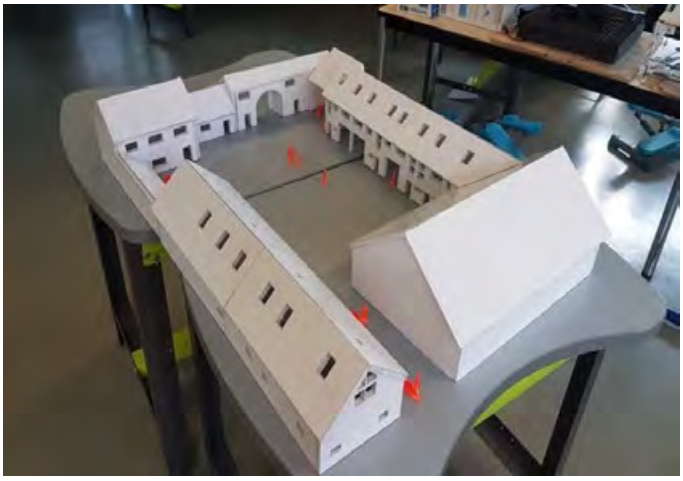
3D EXHIBITIONS ON FUTURE HOUSES

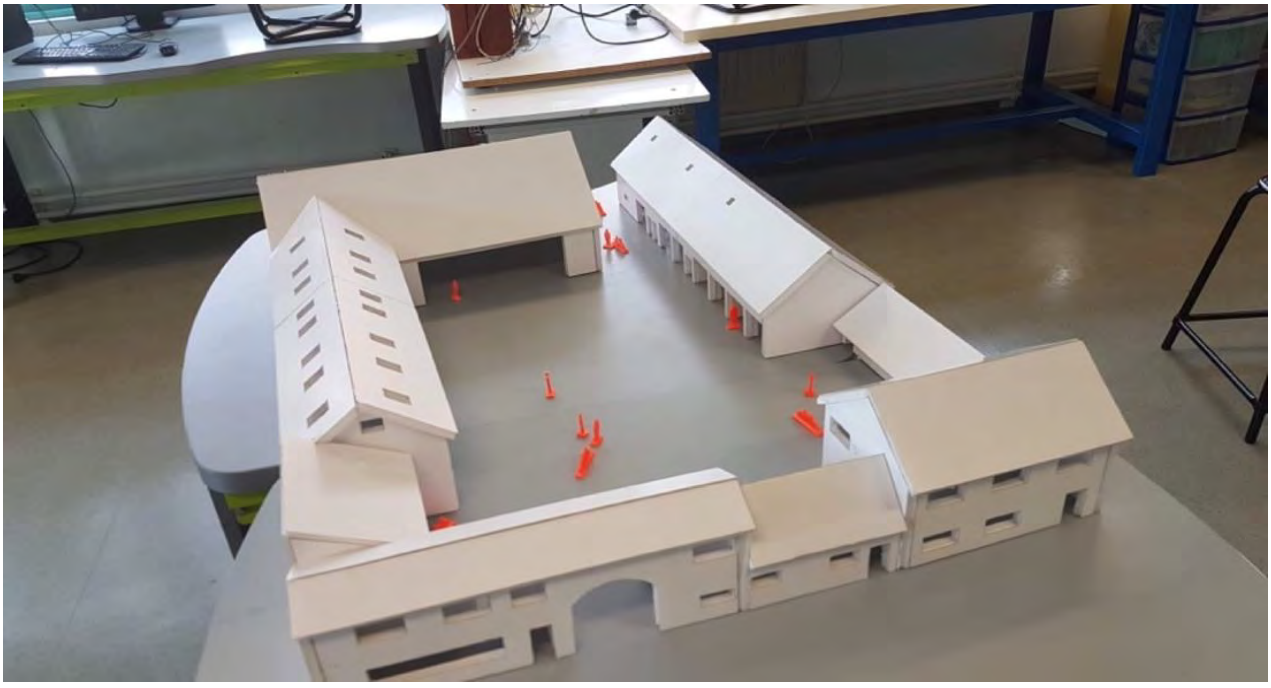
FRANCE

Renovation of an Alsatian farm (3D model - 1:100 scale):

Renovation of an Alsatian farm (white 3D model - 1:50 scale):

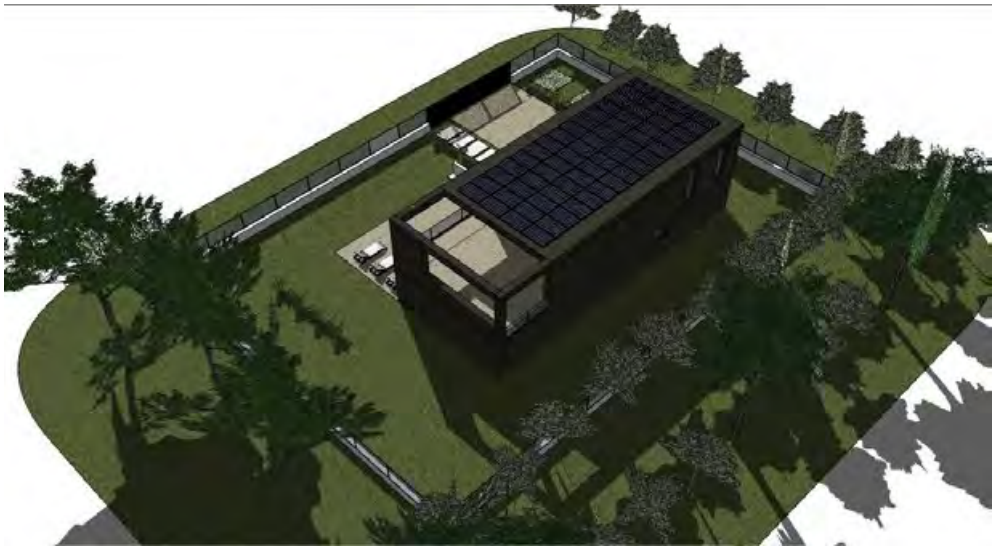






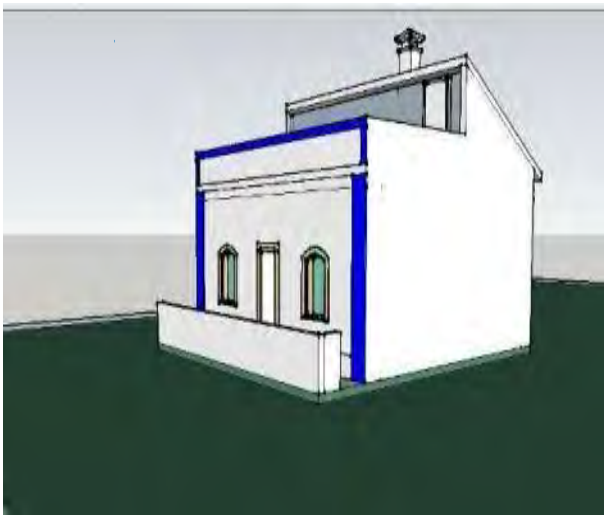
ITALY

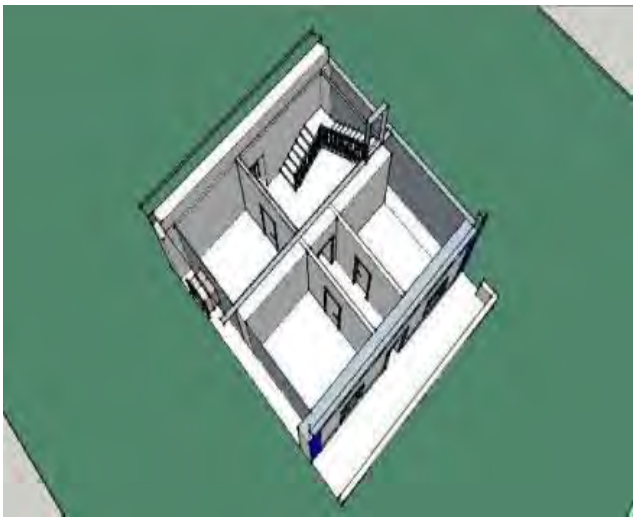
3D ECO-SUSTAIBLE FUTURE HOUSES



PORTUGAL

THE TRADITIONAL HOUSE OF ALGARVE IN 3D





SPAIN

As me learned in the workshop in Estonia, our students have designed and built some 3D model houses of the future with recycled materials.

The Charter of Enviromentally aware European Citizen

Accepted on May 15 of 2020 by project partner

I PREAMBLE

This Charter is one of the outputs of the Erasmus + project **Our Green European Town**. The main purpose of the project has been to learn, become aware of and apply an environmentally friendly way of life. As a result of cooperation and exchange of ideas, we have written in this Charter our vision of what environmentally friendly functioning should look like in today's world.

The Charter is the result of a collaboration between students and teachers from the following schools: IES Biar (Spain, Biar), Profilirana matematicheska gymnasia "Konstantin Velichkov" (Bulgaria, Pazardzhik), Liceo Scientifico e Linguistico Statale Principe Umberto di Savoia (Italy, Catania), Escola Secundária de Loulé (Portugal, Loulé), Lycée Général et Technologique Marc Bloch (France, Bischheim), Pärnu Ühisgümnaasium (Estonia, Pärnu, coordinating school).

In creating the Charter, we have kept in mind that the natural environment needs protection from harmful human activities. This document reflects the ideas of the project partners and we do not claim to be universally valid. There are certainly other aspects that need to be highlighted in terms of environmental protection, both in Europe and on our planet as a whole.

We believe that environmentally sustainable behavior should be based on the following values:

- sustainable use of natural resources;
- scientific and truthful information on environmental problems;
- general environmental education;
- everyone's responsibility to preserve our environment;
- human health;
- welfare of different species;
- biodiversity;
- cooperation and citizen involvement in solving environmental problems;
- optimal ways to dispose of waste without harming the environment;
- green habits to preserve our environment;
- green-towns;
- sustainable energy;
- sustainable constructions;
- healthy development and wellbeing of younger generations;
- taking into account climate change.

Based on these values, we have formulated guiding principles, which we have written about in the next part of the Charter. We believe that following these guidelines, on the part of both individuals and countries, will contribute to environmental sustainability.

As citizens of the European Union, we have set out in the last part of the Charter what we expect from the European Union to promote the values and guiding principles emphasized in this document.

II GUIDING PRINCIPLES

1. Activities that harm our natural environment must be prevented.

Natural resources are not unlimited and it is everyone's responsibility to consume them wisely. Renewable natural resources (water, air, forests, animals, fish stocks, etc.) must be used in such a way as to ensure the diversity of the natural environment.

Water is fundamental to human life. Droughts and water shortages jeopardize human health, agriculture and other activities. Treated wastewater must be reused for street washing, irrigation of gardens and golf courses, etc. Water retention systems should be built for periods of extreme precipitation to be used later on during drought periods.

2. All information on climate change published in any media must be verifiable.

The media play a key role in promoting awareness and a positive attitude towards protection of health and the environment. They are entitled to adequate and accurate information and should be encouraged to communicate this information effectively to the public.

Climate misinformation can be found on mainstream media and social media, through a range of denialist arguments and fallacies. As a consequence, despite strong expert agreement, much of the public remains confused about the reality of human-induced global warming.

Therefore, we believe it is necessary to create an observatory of experts to condemn false information on these issues.

3. Conscious care for the environment begins with education.

A good idea for solving the environmental problems could be integrating ecology topics in the curriculum through all school subjects. This way, the children and young people will build habits to keep the environment clean and they will know the true value of nature. Moreover, it will be good in the kindergartens, all of the kids to have activities connected with recycling, planting different plants, playing games, in which they have to do something good for nature and the best competitor to win some nice award. This way from their early years, the kids will learn how to take care of the environment and what is more, they will know that good actions are always appreciated.

4. Everyone has a responsibility to the environment.

Everyone's awareness of their responsibility to the environment must be promoted. We should ask ourselves, what are we doing to help create the conditions under which the world can deal with the big, systemic challenges that we face.

It is important to implement behavior that respects the environment around us, small behavior can lead to big changes.

5. Activities that endanger human health or welfare of any other species on the planet should be avoided.

Climate change, together with other natural and human-made health stressors, influences human and wildlife health and disease in numerous ways. Habitat destruction brought on by the activity of humans threatens resident species and ecosystems.

Some existing health threats will intensify and new health threats will emerge. Not everyone is equally at risk. Important considerations include age, economic resources, and location.

It must be recognized that human activities are the result of a number of environmental changes, including species extinction and desertification.

It is important to learn from the collateral effects of the Covid-19 crisis. The crisis has shown the

impact of human activities on the environment.

Air pollution decreased drastically, and some endangered marine species (dolphins, tuna) reappeared on the coast as they felt a sudden change in human activity. It is important that we make the most of these learning for a better future and understand the impact of human activity and ways to improve our behavior.

6. Every country must be prepared to the greatest possible extent for major crises that threaten people's lives and health.

One of the main lessons of the Covid-19 crisis has been the lack of preparedness to deal with pandemics. When faced with an emergency, every country is trying to find a suitable solution, and at the same time most countries were not ready to do so and have to face an emergency. There was a lot of international solidarity, but only to the extent that countries can afford it. In order to protect people's lives and health, we should be better prepared for major crises in the future. It is important for the EU to find common and transnational solutions.

7. Human activities which drive to biodiversity loss and a threat to ecosystem sustainability, should be prevented.

Biodiversity, or the variety of all living beings on our planet, has been declining at an alarming rate in recent years, mainly due to human activities, such as land use changes, pollution and climate changes.

The world's ecosystems, its living diversity and the goods and services it provides, are the life support systems upon which all of us depend. When scientists explore each ecosystem, they find countless such interactions, all honed by millions of years of evolution. If undamaged, this produces a finely balanced, healthy system which contributes to a healthy sustainable planet. Our long-term good health is currently at risk due to the continuing loss of biodiversity and the global degradation of ecosystems.

8. Individuals, organizations, citizens' associations and countries around the world should work together to keep the planet clean.

If some individuals, associations, international organizations or countries are working to reduce pollution, then others should do the same, because we live on a common planet.

It is necessary to facilitate the involvement of citizens by taking concrete measures to support civic actions, rather than taking them for granted. Citizen groups and associations have developed widely in the past years to put sustainable development on the table. Local currencies have been created across Europe to encourage local and small-scale economy, citizens and companies have recourse to local goods and materials, whether it be in food, construction or housing equipment. On the local scale, common spaces are being set up for people living in a neighborhood to meet and share common practices.

Such concrete examples, very often initiated by citizens on a small scale must become the norm in the EU so that we may become an example to follow for the World. Concrete decisions must be taken by the institutions to encourage and develop such initiatives.

9. Waste must be managed in such a way that it does not harm the environment.

There should be a rule that every city, town or village should have a rubbish bin about every 200 meters. This is problematic because some villages or small towns do not have enough rubbish bins, which again leads to being thrown out of the street bin. There should also be rubbish bins for forest areas that people often visit.

Authorities must bet on the recycling industry and encourage companies to manufacture biodegradable packaging, encouraging the reuse and recovery of materials.

10. Preserving the environment requires environmentally friendly habits.

If we want to have better results in keeping the environment clean we should have some sort of environmental habit.

One of the main causes of environmental problems is the fact that we do not have a habit of keeping the environment clean. In some countries, governments have found a way to control this, but most countries are not environmentally friendly, so more money should be spent on teaching people that keeping the environment clean must be one of their top priorities.

11. When developing green sustainable cities, existing urban space should be used rather than expand them on new land.

As the urban population increases, many cities build on land that could be used for other purposes (forests, agriculture for example). At the same time, there are many parts of cities that could be reorganized in more efficient ways by restructuring existing constructions for example, or building on wasteland (disused buildings or urban spaces) in a sustainable way.

12. Energy cooperation, sustainable self-construction projects, whether individual or collaborative, should be promoted.

Individuals, companies, businesses, cities, we all have different needs when it comes to energy. Some produce more than they need; others use more than they can produce. Therefore, energy should be used as little as possible and as much as necessary.

Many people who are concerned about sustainability want to be fully responsible for the construction of their homes. Some develop participatory projects, with the help of municipalities, who provide them with land at a lower cost.

13. Listen to the voice of youth and take it into account.

Young people are very concerned about sustainable development in all its forms. It is often said that the youth are Utopian and that by growing older, they learn how to deal with the world's problems. But in fact, they learn to accept the situation and not to face it. It is primordial that the youth are heard by the institutions before they mislearn what they have been taught at school. Some organizations educating young people to citizen engagement do exist, they must have more power.

14. Climate change should be taken into account.

Scientifically proven views and critical warnings from scientists about climate change should be taken more seriously. Individual extreme views that deny the impact of human activities on the environment should not be taken seriously. It is important to keep pseudo-scientific extremist views away from schools.

III EXPECTATIONS FOR THE EUROPEAN UNION

In order to implement effectively the values and guiding principles of this Charter, the European Union should continue or start with the following activities. In formulating these actions, we have not forgotten that every single citizen of the European Union has a responsibility to the environment.

1. Companies should not make economic profits by wasting natural resources. Initiatives that waste natural resources must be stopped as soon as possible. Mandatory energy audits for large companies could take place every two years.

All cities must have a circular economy plan in order to reduce waste.

2. The European Union could create an official webpage including only the links to the webs with scientific and proved information. An information-observatory could be created in order to report and penalise the webs with fake information.

3. Contributing to the UN Sustainable Development Goals (SDG 17) is crucial. In order to make the Earth a more sustainable planet, it is important to take measures that will enable us to implement SDG 17 effectively, as these are essential for us to understand the social, environmental, economic, geostrategic and geopolitical causes of today's world.

Giving various prizes to schools, kindergartens and other educational institutions for their social and environmental activities can stimulate their programs. It must be a condition that all educational institutions carry out their tasks in practice, not just on paper.

4. A new subject about climate change could be created in every school of the European Union, to promote the awareness of the responsibility of each individual in climate change.

The European Union could create some kind of Climate awards to recognize environmental activism and an incentive exemplary individual **leadership** in response to **climate** change.

5. There is a need to promote agricultural rules that are adapted to the meteorology of each region. Also commit to sustainable development models that guarantee decent working conditions for all. Emission tax money could be used to set up a disaster relief fund.

6. It should be ensured that the European Parliament's Committee on the Environment, Public Health and Food Safety develops common objectives and tools for dealing with major emergencies, whether it be in terms of medical staff and equipment, in terms of testing equipment or in terms of efficient emergency measures.

7. Vulnerable ecosystems should be accorded the highest priority for action, especially for prevention initiatives, and particularly when significant biodiversity values are at risk.

Designate particular areas for hunting while carrying out more stringent control to protect biodiversity values elsewhere.

8. Devote a large part of European Union budget to facilitate citizen engagement and local initiatives in favor of Sustainable Development.

Encourage participatory democracy by creating non-political citizen groups within the European institutions to work directly with their respective representatives in order to shed light on local initiatives by discussing them at the European Commission.

9. The introduction of a new rule that sets a minimal number of one trash can every 200 metres for villages and towns and 100 metres for cities.

Another rule that forested areas, which are visited by a minimum of 10 people per day, should have at least one trash can. There could also be a new job added: a person who collects the litter

from forest areas, which garbage trucks cannot access. This person could also give people fines if they see them littering the area.

10. Create a group to study and redefine the notions of necessary and unnecessary industrial activities, taking into account the teachings of massive human confinement in March and April 2020 so that the EU may encourage or discourage such activities through legal and financial measures, based on their benefits on sustainable development.

11. Through its strategies, the European Union and national authorities could actively promote energy cooperation between local actors (associations, local authorities and citizens) in the production and sale of renewable energy (small-scale solar power plants, shared windmills, small heating networks, etc.).

12. Promote and help develop sustainable self-build projects by creating a global open-source network in the construction domain, and promoting successful projects for others to follow.

13. Help promote European Union cities construction projects that reorganize existing urban space more efficiently and do not waste new land.

14. Invite young representatives of the European Union to all parliamentary sessions and give them the same platform as any European delegate.

Consult young representatives on all issues discussed by the European Union, on a regular basis, and take these contributions into account.

Give more public visibility to young representatives on the European Union website and in European Union communication.

The Hummingbird Legend:

*One day, said the legend, there was a huge forest fire. All of the animals were terrified, grounded, they watched the disaster powerless. Only the small hummingbird did something, to get a few drops of water with its beak to throw on the fire. After a moment, the armadillo, annoyed by this ridiculous agitation, said to him: "Hummingbird! Are you crazy? It is not with a few drops of water that you'll extinguish the fire!". And the hummingbird answered:"**I know, but I do my part.**"*

Environmental-friendly attitude is a self-defence. We should act in an environment-friendly way mostly for ourselves because if the environment is doomed, we are going to be doomed with it

IES Biar (Spain, Biar)

Proliferana matematicheska gymnasia "Konstantin Velichkov" (Bulgaria, Pazardzhik)

Liceo Scientifico e Linguistico Statale Principe Umberto di Savoia (Italy, Catania)

Escola Secundária de Loulé (Portugal, Loulé)

Lycée Général et Technologique Marc Bloch (France, Bischheim)

Pärnu Ühisgümnaasium, (Estonia, Pärnu, coordinating school)