

## "Environment and Sustainability – Understand, Care, Act!" 2018 - 2020

School Exchange Partnerships 2018-1-DE03-KA229-047188\_2

Learning/teaching/training activities

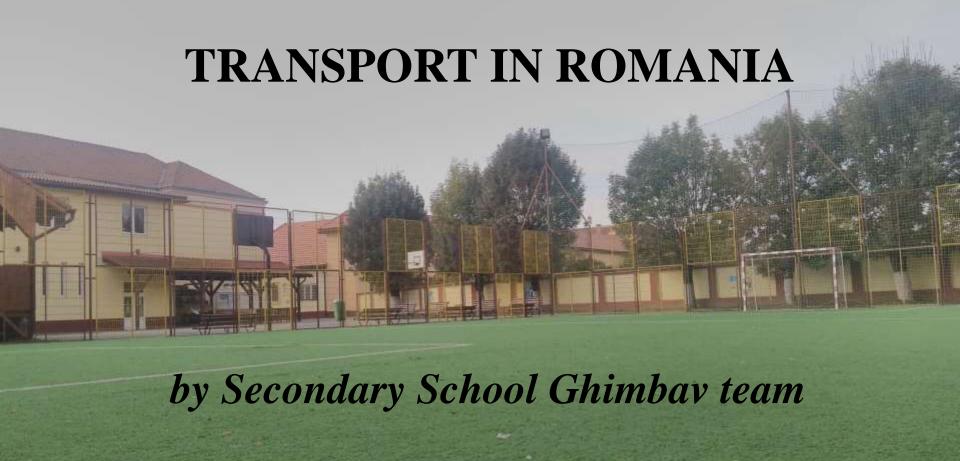
Transport and energy

Cadiz, Spain

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Presented by Secondary School Ghimbav team







### How can we define the transport?

Transport has always existed. It started with the first people who carried their game when coming back from hunting. Nowadays it develops more and more.

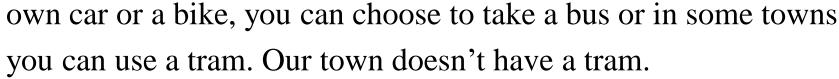
It makes our lives easier and it has been getting better since the wheel was discovered.

In our country, the transport can be clasified in:



## Land transport

In Romania, if you want to move inside your city and you don't have your



If you travel a long distance inside the country, you can choose a train. At present, Romania has 20, 077 kilometers of railway.









# Erasmus+ Water transport

In Romania, water transport is mainly used for carrying goods. Our water access (to the Danube and the Black Sea) also allows people to enjoy a relaxing vacation on a cruise ship or on their own private boat if they have one.

In the Danube Delta the ferryboat and small speed boats are also used to make access easier to some isolated villages around this area.





# Erasmus+ Port of Constanta

It is located in Constanta, Romania, on the western coast of the Black Sea, 332 km from the Bosphorus Strait and 157 km from the Sulina Branch, through which the Danube river flows into the sea. It covers 3,926 ha (9,700 acres). The Port of Constanța is the largest on the Black Sea and the 17th largest in Europe.





# Airline transport

If you want to travel to another country, you can go by car but if the chosen destination is far you can travel by plane.

In Romania there are sixteen functional airports. The most popular airport is the "Henry Coandă" airport in the

capital.





### The plane

The plane is a means of transport used in the air. It is heavier than the air and it is equipped with a large flat surfaces in the form of wings. An airplane moves with the help of the propellers and the motors.





The airplanes appeared at the beginning of the 20th century and were made of wood and fabric in order to be light. The Wright Brothers' Flyer 1 was the first checked and motorized airplane in 1903.

In 1937, Frank Whittle designed the jet engine. In 1939 we have the first jet called Heinkel HE 178.

In 1950 the first aircraft for passengers appears.



Flyer 1

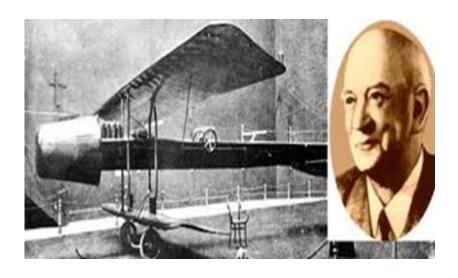


Heinkel HE 178



# GREAT ROMANIAN INVENTORS IN THE HISTORY OF FLIGHT





#### Traian Vuia and his plane.

He was the first to prove that a flying machine could rise into the air by running on wheels in **1906.** 

#### Henri Coanda and his plane.

He was the builder of an experimental aircraft called "Coanda 1910".

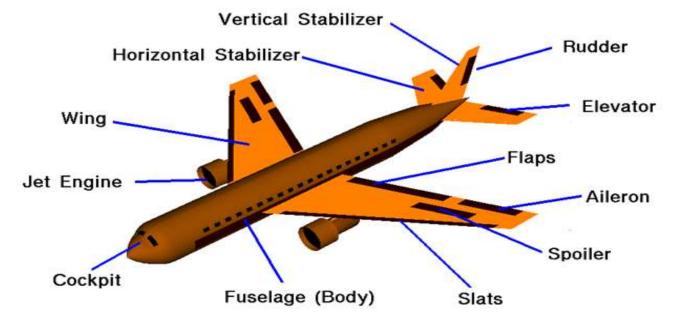
He also discovered the "Coandă Effect" of fluid dynamics.



The plane is made of four subsystems:

- -the structure of the resistance
- -the propulsion system
- -facilities and mechanization of the plane
- -the equipment panel and the control of the flight apparatus

Generally an airplane is composed of the following major parts: the wing, a fuselage, a vertical stabilizer, a horizontal stabilizer and a landing gear.



# Erasmus+ Special transport

Special transport means underground transport, namely subways.

In Romania, the only one city where you can find a subway is Bucharest, the capital.





# PUBLIC OF TRANSPORT IN GHIMBAV/BRASOV

- As you all may know, nowadays there are a lot of means of transport in the whole world.
- Here, in Brasov/ Ghimbav we have quite a few including buses, vans or trains.



#### THE BEGINNINGS OF THE BUS

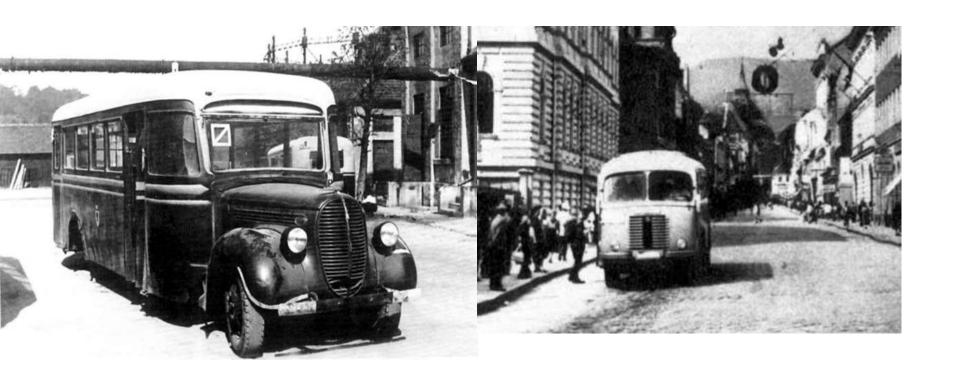
1925 – the first buses can be seen on the streets of Brasov. There were only two routes and the buses were private property.

**1938** – the number of buses increased to 35 and they are no longer private property but they are owned by the City Hall.



#### **SNAPSHOTS OF OLD TIMES**

1940





### **QUITE A DIFFERENCE!**



Buses are supposed to transport a lot of people so they are efficient. Many people in Brasov use them either because they don't own a car or maybe just to save some money.

Traveling by bus is usually cheaper than using a car.



#### TRANSPORT IN GHIMBAV

The only possibility of transport from Ghimbav to Brasov (only 5 km) is the van.

Vans are a little bit old- fashioned since, most cities are using mainly buses as a public means of transport because they are big and spacious.

However, vans are still used for carrying people from a

small town to a big one.





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