

Erasmus+ KA229 Integrating technology in the teaching process,

path towards building 21st century skills

Environmental situation in Ukraine and comparison with Slovenia

Online Jitsi Meet conference

17th June 2020 at 8.30

Transcripted by Janez Klemenčič

Attending:

- Janez Klemenčič (project coordinator, leader of the conference)
- Renata Capuder Mermal (member of the project team)
- Rafaela Kožlakar (member of the project team)
- Mariia Isenko (invited presenter, student on the Erasmus+ exchange)
- Iryna Niestierova (invited presenter, student on the Erasmus+ exchange)
- 29 students of the project target economic technician class

Activities:

As Ukraine is a large country, the first part of the presentation focused on Odessa region. It covers an area of 33,300 km² and has a population of 2.4 million (133 nationalities). Slovenia covers 20,300 km² and has a population of 2.1 million (7,7 % other nationalities). Slovenia also has a small portion – 46 km – of coastline along the Adriatic Sea, whereas the total coastline in Odessa is over 300 km.

Odessa has a free access to the Black Sea and connections to the big river routes leading into the inland. Slovenia has a free access to the Adriatic Sea and thus the Mediterranean Sea.

The city of Odessa is the administrative centre of the region with the population of 1 million. The capital of Slovenia, Ljubljana, has only 280,000 inhabitants.

Through Odessa lead important transport corridors between Baltic and Caspian Sea. Slovenia lies at the intersection of roads from Central Europe to the Mediterranean, the Balkans and the Pannonian plain.

In Odessa region 75 % of Ukrainian maritime industry is located. It consists of 7 ports, dockyards and shipbuilding plants. The total cargo passed is over 93.5 million tonnes. Cargo throughput in the major Slovenian port of Koper is over 15.4 million tonnes.

The main educational institutions located in the Odessa region are Odessa National University Mechnikov and Odessa National Maritime Academy. In Slovenia the main educational institution is the University of Ljubljana.

Chemical enterprises represent main industrial sector of the Odessa region. The ammonia plant complex with 4,000 employees consists of unloading terminal with annual capacity of 4.7 million tonnes and the factory storehouse with the capacity of 120,000 tonnes. The biggest pharmaceutical company in Slovenia is Krka with 4,500 employees.

The surface water covers 4 % of Ukraine (24,100 km² – an area, larger than Slovenia). There are 63,000 rivers in Ukraine, whereas in Slovenia the number of rivers is much lower, namely 59.

You cannot drink tap water in Ukraine, the water quality rating is only 39 %. The tap water in Slovenia is of much better quality, the official rating is 84 %.

The Black Sea is very polluted. 83 % of litter found in the water is plastic (bottles, packaging and bags). The amount of litter is twice as high as in the Mediterranean Sea (50 items/km²). The Adriatic Sea is much more polluted (167 items/km²). Microplastics were found in the Black Sea in depth of more than 2,000 m. At the bottom of the Adriatic Sea there are 313 plastic items /km² and they can stay there for centuries.

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Both Ukraine and Slovenia are low carbon countries. Main source of electrical energy are nuclear plants and renewable sources. Carbon intensity is 200-300 g/kWh. The daily capacity of the electricity production is 12 GW in Ukraine and 2 GW in Slovenia.

Ukraine has 15 nuclear reactors, which generate half of the electricity needed in the country. Slovenia only has 1 nuclear plant, that produces one third of common electricity. The Ukrainian government is looking for foreign investors to build 2 new big nuclear plants. Slovenia plans to build another nuclear reactor in the next 10 years, too.

The most known reactors in Ukraine were in Chernobyl. Unit 4 was destroyed in fire accident in 1986, last unit was closed in 2000. Nowadays the nuclear plants are much safer than that in Chernobyl.

We would like to thank Group B2 (Mrs. Milka Vaupotič) for helping to organize the conference.