# Green technologies commonly used in our countries

Poland
Portugal
Finland
Croatia
Italy



### Portugal

#### The most commonly used energies in Portugal are:

- Wind energy
- Solar energy

### Solar energy

Solar energy is the energy produced by the sun.

Solar energy is by far the best possible alternative to fossil fuels and energy, making it an almost constant factor in private homes and even businesses since the existing energy is virtually inexhaustible.

Photovoltaic solar energy works differently than simplest solar energy, as it is often purchased for a thermal purpose.

There are cars that use solar energy and it is cost effective.

#### Wind Energy

Wind energy is the energy obtained by the action of the wind, that is, by using the kinetic energy generated by the air currents.

Portugal is amongst the European champions of energy produced from the wind, both in terms of electricity produced and in terms of power growth in the last decade.

Wind energy accounted for 20% of the total electricity produced in Portugal in 2016, placing the country in the fourth position among the 28 countries of the European Union.

## Poland

#### **PHOTOVOLTAIC PANELS**

- Semiconductor element in which the conversion of solar energy into electrical energy occurs as a result of a photovoltaic phenomenon.
- Electrons move to area n, and holes (see load carriers) to area p. For the first time, the photovoltaic effect was observed by A.C. Becquerel in 1839 in the circumference of illuminated electrodes placed in the electrolyte, and observations of this phenomenon on the border of two solid bodies were made by W. Adams and R. Day 37 years later. The photocell is made of a semiconductor and forms the p-n connector that the light falls on.

## Croatia

- Hydropower
- The most popular energy in Croatia
- More than half of green energy of Croatia comes from hydro electric power stations
- The biggest one is Zakučac Hydroelectric Power Plant a large power plant in Croatia that has four turbines with a nominal capacity of 122 MW each having a total capacity of 488 MW. It is a high-pressure diversion plant located at the Cetina River mouth into the sea.

### Croatia

- Wind energy
- A little less popular than hydro-energy
- The first turbine in Croatia was made in 1988 by Koncar company
- Mostly located near the sea due to perfect climatic conditions, making it most effective

## Finland

Finland is on the list of leaders in green technologies, it serves as a laboratory for environmental solutions. Only in 2010, the Finnish renewable energy sector grew 5.6%. Finnish transport innovators are using modern communications technology creatively to provide flexible services that reduce eco-impact. Finland also makes use of solar power and hydro power. It saves nature to use green technology or energy and it supports the idea of cleaner environment.

## **ITALY**

- Clean Technology in Italy
- Through its recent policies and financial incentives, Italy has made a major improvement in the use of solar energy technology
- Italy has impressive growth in the renewable energy sector, photovoltaic systems are becoming more and more popular
- Advanced technology for processing and recycling waste; treating and reclaiming water, waste water and polluted marine sites; the promotion of renewable raw materials are all becoming widely used in Italy