

**THE ECONOMIC  
AND SOCIO-POLITICAL  
BACKGROUND OF  
THE AVIATION INDUSTRY  
FROM THE PERSPECTIVE OF  
TRENDS AND CURRENT CHANGES**

**OBUDA UNIVERSITY  
BUDAPEST 2017**

*The air transport market - its role and significance  
for the economic and social development*

*Aviation Workshops*

Prepared by Ewa Grabińska



**Introduction**



*One kilometre of motorway or road  
does not lead anywhere,  
but one kilometre of runway  
enables interconnectivity with  
the entire world*

**The rules of the game**

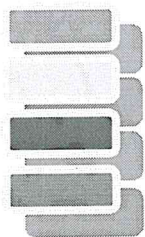
**You are going to be divided into 4 groups, each group decide on one leader and you can choose one colour for yourselves;**

**Green**

**Yellow**

**Red**

**Blue**



**Task**

**You are going to be divided into 4 groups and your task will be to make a list of advantages and disadvantages of different means of transport.**

My examples will be presented and given to you, but first I would like you to run a brainstorming discussion, then we can compare the results.

The pattern below displays the principle forms of transport, including their advantages and drawbacks.

*Advantages and disadvantages of different means of transport*

Air Transport  
Advantages

Rail Transport  
Advantages

Road Transport  
Advantages

Sea Transport  
Advantages

.....

.....

.....

.....

.....

.....

The comparison of life-threatening cases taking into account different means of transport

Means of transport	The number killed in accidents 1 million vehicle-kilometers
road transport	0,95
sea transport	0,25
rail transport	0,03
air transport	0,035

.....

.....

.....

.....

.....

.....

**Safety in air transport**

The threats for air transport:

- terrorism
- hijacking
- bombings
- hacking hackers

-The biggest plane crashes in the world.

-An airport is a strategic object of air transport point infrastructure.

.....

.....

.....

.....

.....

.....

*An Impossible Dream: The History of Flight*

The history of aviation has extended over more than two thousand years from the earliest attempts in kites and gliders to powered heavier-than-air, supersonic and hypersonic flights.

**Watching films;**

- The History of Aviation
- The History of Flight
- Once upon a time... The Explorers. Aviation.
- Wright Brothers Biography Short

.....

.....

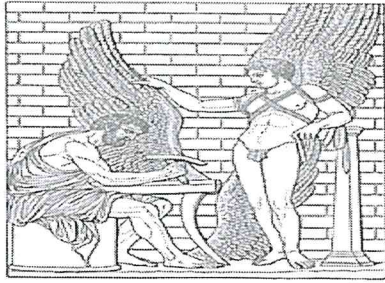
.....

.....

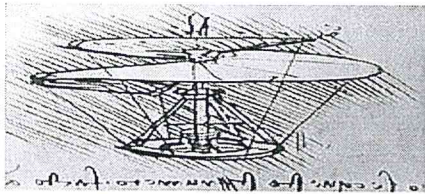
.....

.....

The origins and history of aviation



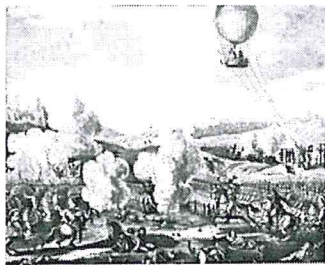
Do you know what is presented in the picture?



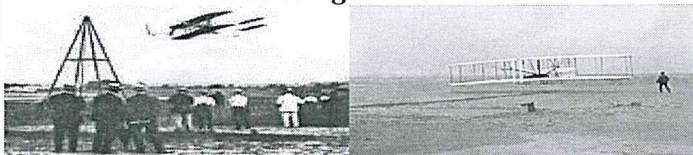
„When once you have tasted flight, you will forever walk the earth with your eyes turned skyward, for there you have been, and there you will always long to return.”

Leonardo da Vinci

Tethered balloons filled with hot air were used in the first half of the 19th century and saw considerable action in several mid-century wars, most notably the American Civil War, where balloons provided observation during the Battle of Petersburg in Virginia.



The Wright Brothers



The prototype of modern aeroplane was born in ..... and the first man to fly a mechanically-powered heavier-than-air machine was .....

His flight took place at ....., on..... It lasted only ..... seconds and the machine flew a little more than .....

## Breaking the Sound Barrier

1 Mach = ..... ?

The greatest achievements in breaking the sound barrier

1949 - .....

1963 - .....

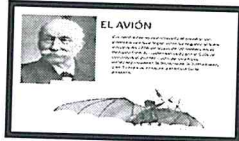
The 10 Fastest Passengers Planes in History - .....

The era of wide-body aircraft – jumbo jet

## Air transport

The term *air transport*, used to define transport by air with the use of a means of transport referred to as an aircraft, shall be construed as the intentional movement of people and cargoes in airspace and is distinguished from other activities in technical, organisational and economic relations.

The etymology of the word 'aviation':



## The importance of air transport for economy

- Air travel is an integral part of the global world of the 21<sup>st</sup> century. At present, passenger transport constitutes over 85% of world air transport.

- It is estimated that all airlines around the world carry over a few billion passengers over a distance of tens of millions of kilometres - 3.3. billion passangers.

- Currently there are: 1568 commercial airlines, 3846 commercial airports, 192 air traffic control services and 23.844 aeroplane operators.

- World air transport provides 56.6 million jobs and its share in the world's GDP is 3.5%, which amounts to 2.2 billion dollars.

- 8.4 million people are directly employed in the sector, 9.3 million are employed by air industry suppliers and 4.4 million workplaces result from the expenses of air transport workers (if we add the tourism sector, there are 34.5 million workplaces more.)

- The European industry of air transport provides 8.7 million workplaces and 749 billion USD in European GDP.

## The air transport market

The main players are;

- airports
- air carriers
- providers of air services

.....

.....

.....

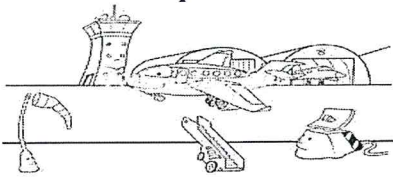
.....

.....

.....

## Airport

*What springs to mind when you hear the word 'airport'?*



## The Evolution of Airports

airfield → airport → hub

.....

.....

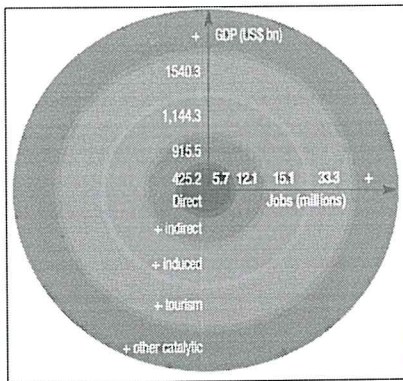
.....

.....

.....

.....

## The impact of the airport on GDP and employment



.....

.....

.....

.....

.....

.....

## World Air Transport Statistics

Please specify the country that recorded the highest number of passengers in 2015 and 2016

.....

Please provide the name of three main airports that recorded the highest number of passengers in 2015 and 2016

1. ....
2. ....
3. ....

.....

.....

.....

.....

.....

.....

## Air Transport in Europe

- In 2013 the number of air passengers carried (including passengers on domestic flights as well as international flights) had reached ..... million passengers.

- What is the number of passengers in 2014 ?  
In 2014 ..... million passengers travelled by air in the European Union.

Please name the three main airports in Europe that recorded the highest number of passengers in 2015 and 2016

1. ....
2. ....
3. ....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

## **Poland – basic facts**

- In 2000 the number of passengers in Poland handled was - .....

- In 2010 the number of passengers - .....

- In 2013 the number of passengers - .....

- In 2014 the number of passengers - .....

- In 2015 the number of passengers - .....

- In 2016 the number of passengers - .....

- In 2016 – a Polish airport which handled the largest number of passengers was .....

.....

.....

.....

.....

.....

.....

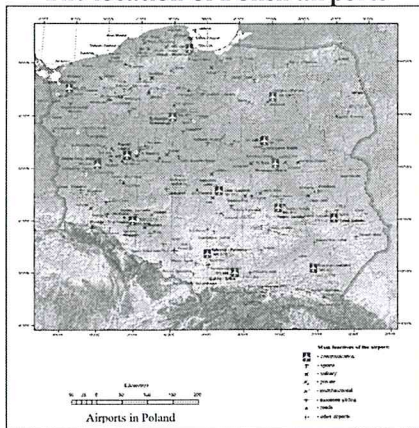
.....

.....

.....

.....

## **The location of Polish airports**



.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

## **Polish airports in the TEN-T**



.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

## Airlines in Poland



.....

.....

.....

.....

.....

.....

.....

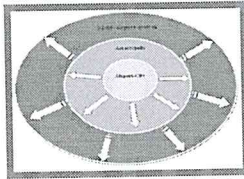
.....

.....

.....

## The concept of Airport City

Currently, the scientific literature mentions the concept of "Airport City" or "Terminal City" which represents a place that provides not only passenger check-in but also satisfies other numerous needs of current and potential passengers (clients). Airports are quickly changing into independent cities, which may be considered multi-task tourist-business centers, which include airport area and its catchment area.



.....

.....

.....

.....

.....

.....

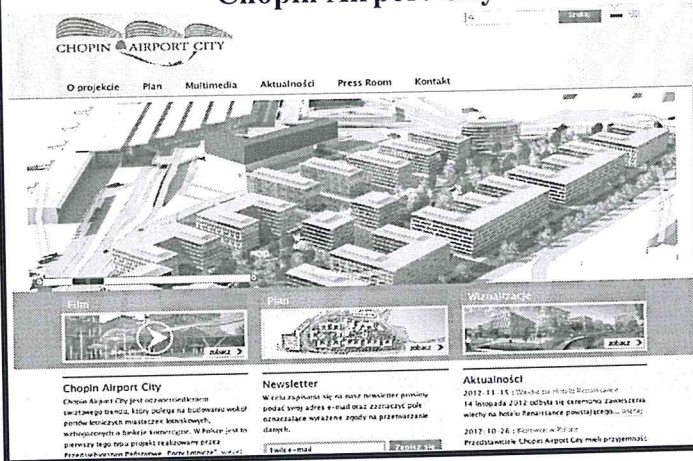
.....

.....

.....

.....

## Chopin Airport City



.....

.....

.....

.....

.....

.....

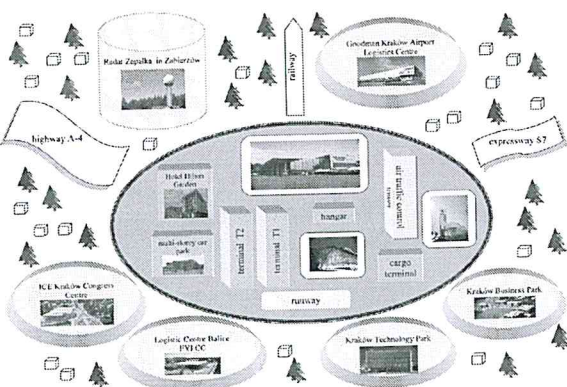
.....

.....

.....

.....

## John Paul II International Airport Kraków-Balice according to the modern concept of Airport City



.....

.....

.....

.....

.....

.....

.....

.....

.....

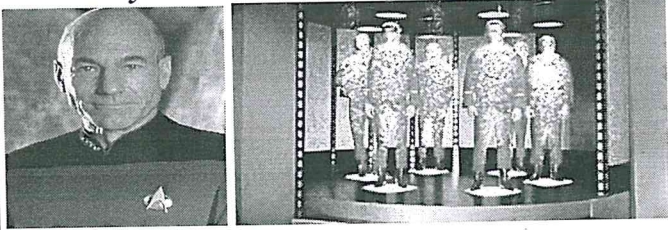
.....



*The future for transport*

*What will be there in the future ?*

*Do you know what the pictures present ?*



.....

.....

.....

.....

.....

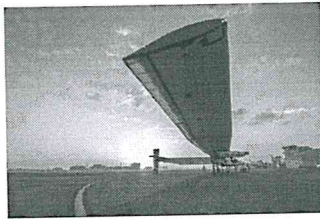
.....

.....

**A passenger plane of the future - Solar Impulse**

Solar Impulse 1 and Solar Impulse 2 are airplanes powered by solar energy. Researchers from Switzerland created these planes as an experiment.

The goal of this experiment is to fly around Earth using only solar energy.



.....

.....

.....

.....

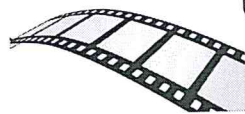
.....

.....

.....

**The air transport market ...?**

**Situation like in a good film, dynamic, fast and unpredictable**



.....

.....

.....

.....

.....

.....

.....

*Thank you ☺*

**Flying - dream of mankind**



*The most beautiful dream that has haunted the heart of man since Icarus is today reality*

*Louis Bleriot*

.....

.....

.....

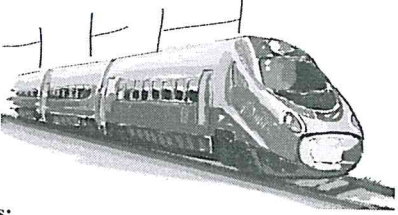

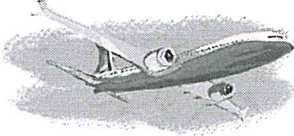

.....

.....

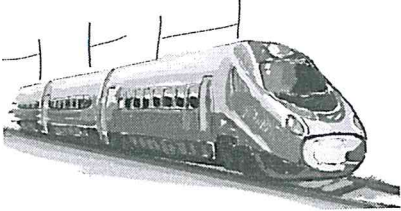

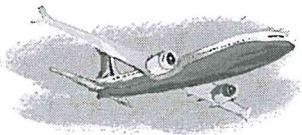
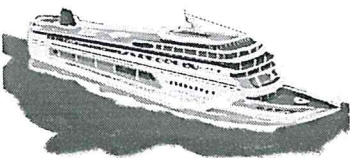
.....

.....

Table 1. Advantages and disadvantages of particular branches of transportation

<p style="text-align: center;"><b>RAIL TRANSPORTATION</b></p>  <p>Advantages:</p>   <p>Disadvantages:</p>	<p style="text-align: center;"><b>COACH/BUS TRANSPORTATION</b></p>  <p>Advantages:</p>   <p>Disadvantages:</p>
<p style="text-align: center;"><b>AIR TRANSPORTATION</b></p>  <p>Advantages:</p>   <p>Disadvantages:</p>	<p style="text-align: center;"><b>WATER TRANSPORTATION</b></p>  <p>Advantages:</p>   <p>Disadvantages:</p>

**Table 1. Advantages and disadvantages of particular branches of transportation**

<p style="text-align: center;"><b>RAIL TRANSPORTATION</b></p>  <p><b>Advantages:</b></p> <ul style="list-style-type: none"> <li>▪ lower cost of tickets in comparison to air travel</li> <li>▪ relatively high level of journey safety</li> <li>▪ possibility to rest and sleep at night</li> <li>▪ in the so called <i>high speed trains</i> relatively high comfort of journey, high speed and high level of safety</li> </ul> <p><b>Disadvantages:</b></p> <ul style="list-style-type: none"> <li>▪ limitations resulting from timetables</li> <li>▪ necessity to use additional transportation for transfers</li> <li>▪ relatively low comfort of journey</li> <li>▪ relatively low travelling speed</li> <li>▪ necessity of carrying the luggage while transferring</li> <li>▪ risk of crime (especially thefts)</li> </ul>	<p style="text-align: center;"><b>COACH/BUS TRANSPORTATION</b></p>  <p><b>Advantages:</b></p> <ul style="list-style-type: none"> <li>▪ one of the cheapest forms of transportation per participant</li> <li>▪ possibility of getting directly to a destination (a tourist attraction, accommodation)</li> <li>▪ possibility of discovering a passing by scenery</li> <li>▪ luggage loaded in a departure place, no risk of losing the luggage</li> </ul> <p><b>Disadvantages:</b></p> <ul style="list-style-type: none"> <li>▪ lengthening time of journey</li> <li>▪ limitations in the size of luggage</li> <li>▪ necessity of crossing many border crossings (slowly being eliminated by international regulations)</li> <li>▪ risk of collisions, road accidents (the highest rate as compared to other means of transport)</li> </ul>
<p style="text-align: center;"><b>AIR TRANSPORTATION</b></p>  <p><b>Advantages:</b></p> <ul style="list-style-type: none"> <li>▪ comfort of travelling</li> <li>▪ high level of safety, the lowest rate of accident risk</li> <li>▪ comfort of travelling above 2,000 km</li> <li>▪ the only means of transport, apart from water transport, to be used for intercontinental journeys</li> <li>▪ short time of travel and high speed of travelling (taking time of reaching transportation points and time for transfers into consideration)</li> <li>▪ possibility to use connections of the <i>point-to-point</i> type (directness of connections, no necessity to transfer)</li> <li>▪ reliability, high volume, and high frequency of transfers</li> <li>▪ possibility of tickets purchase at a relatively fair price</li> <li>▪ high safety level and travel comfort</li> </ul> <p><b>Disadvantages:</b></p> <ul style="list-style-type: none"> <li>▪ relatively high cost (i.e. a relatively high ticket price but thanks to LCC it is possible to choose one of the cheapest options of getting to desired destinations)</li> <li>▪ high terrorism risk</li> <li>▪ limitations in journey planning resulting from flight schedules and airport's location (limited areal availability due to airport's location and thus a burdensome necessity of getting to the airport, which is not always in the traveller's place of residence)</li> <li>▪ change of flight times that causes additional costs and depends on the possibility to change the reservation</li> <li>▪ restrictions or possible delays due to weather conditions</li> <li>▪ necessity to use additional transport for transfers</li> </ul>	<p style="text-align: center;"><b>WATER TRANSPORTATION</b></p>  <p><b>Advantages:</b></p> <ul style="list-style-type: none"> <li>▪ low price (as compared to flight tickets)</li> <li>▪ possibility to order meals</li> <li>▪ high comfort of journey</li> <li>▪ when organizing certain types of journey it is the only means of transportation, apart from air travel (getting to islands)</li> <li>▪ possibility of additional attractions, getting to know some extra places</li> </ul> <p><b>Disadvantages:</b></p> <ul style="list-style-type: none"> <li>▪ low speed of travel, the journey lengthens greatly</li> <li>▪ limitations resulting from timetables</li> <li>▪ restrictions or possible delays due to weather conditions</li> <li>▪ necessity to use additional transport for transfers</li> <li>▪ many potential passengers forgo this form of transportation due to seasickness or fears and anxieties</li> </ul>