

# **FH Campus 02 - Graz**

## **Study trip 2017 Žilina**

**30.4.2017 – 04.05.2017**



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## 1. Bratislava

**Sunday, April 30, 2017**

### **Arrival in Bratislava:**

The destinations of the study trip this year were Bratislava and Zilina in Slovakia. The bachelor and master students of the Degree Programme Financial Accounting & Management Accounting at Campus 02 University of Applied Sciences drove at 3 pm from Graz to Bratislava. After a three-hour bus ride, we arrived at our hotel, the luxury Hotel Crowne Plaza Bratislava. We checked into the hotel and afterwards the remaining night was at our disposal. As most of us were hungry, we searched for a good-middle class restaurant with domestic specialities. After enjoying the typical Slovakian dishes, the night ended with a couple of beers.



**Monday, May 1, 2017**

### **Guided City Tour:**

The second day started at 10 am doing a guided city tour. Equipped with the bus and a charming travel guide, we explored the city of Bratislava. We saw many sights like the presidential palace, the archbishop's summer palace, the pyramid-shaped building of the public service broadcasting of Slovakia, the University of Technology and the freedom square. Furthermore, we visited the castle of Bratislava, which was rebuilt after it was completely burned-down after the second world war. Finally, we explored the old-town by foot. The travel guide told us about the history of the city. For example, the imperial and royal monarchy influenced the buildings and the cityscape.



Nowadays, you can find signs written in the languages German and Hungarian. Especially the bronze statues, which are spread all over the city, were very entertaining. All of them had different meanings.

### **Afternoon:**

The afternoon was organised by the students themselves. In small groups we explored the city, enjoyed the day in one of Bratislava's lovely coffee houses or spend the money in the several shopping streets. One group decided to drive to the ruin Devin, which is 15 kilometres from Bratislava. The historical tracks can be followed to the Celts. Even the Romans controlled their border from the place of the ruins. The Slavs settled in the region and built up the castle until the French blasted it. Today the ruin provides a fascinating view of the Danube.



## 2. Company Visit VW

**Tuesday, April 2, 2017**

### **Company Visit VW:**

The company employs 12,300 people in Bratislava.

The employees wear t-shirts in different colours to be able to separate the different work areas in the production lines:

white: montage

green: sample quality management

yellow: quality management

red: teamleader

At this site there were produce this brands: VW, Porsche, Bentley, Seat, Skoda and Audi. There are some cars which are produced only at this site for example: VW Tiguan, Audi Q7 and „Use more family“.

VW has a just in time production so there are no cars on stock. The production time of a regular car is 24 hours and for SUV they need 48 hours. Before the cars are delivered to the customers they are tested on a special build circuit under real circumstances.

We visited three production halls of the site:

### **press plant:**

The manufacturing progress is separated in view different steps. The first step is the drawing followed by cutting that is repeated once, press and calibrate. There are a 80 tons crane in the hall. That is necessary to transport the different tools to the press plant.



source: Volkswagen Slovakia, a.s., [www.volkswagen.sk](http://www.volkswagen.sk)

### **vehicle body**

In this hall, you find 300 robots which are responsible for the main working steps.



source: Volkswagen Slovakia, a.s., [www.volkswagen.sk](http://www.volkswagen.sk)

The automatization in here is about 60%. The individual parts which were produced in the press plant are assembled to one body. The next step is to give the body a special colour.

**aggregate:**

The aggregates are produced in here are not only used in this site. There are also transported to other companies around the world. Some individual parts additionally bought in Japan, China and Europe.



source: CEIT Technical Innovation, s.r.o. [www.ceittechnicinnovation.eu](http://www.ceittechnicinnovation.eu)

The automatization in here is about 90%. This automatization stage can be reached because the workers are supported by self propelled machines. To avoid accidents and motivate the employees the self propelled machines are playing classic music. The machines were produced in cooperation with the scientific park on the campus of the university of Zilina.



### 3. Zilina University

**Tuesday, April 2, 2017**

#### **Žilina University:**

In the city of Žilina we had the opportunity to visit the University of Žilina through an acquaintance of Mr. Grünbichler and Mr. Klucka a representative from the University of Žilina. This also included the visit of the scientific park from the University of Žilina.



The University of Žilina was founded in 1953 and already looks back at more than 70.000 graduated students. The University of Žilina is with over 1.500 employees a big employer for the region. Currently they teach about 10.000 students in eight different, but mostly technical, faculties.

At the scientific park we were shown a demonstration of a modern monitoring system for tunnels. We also had the chance to admire some tiny roboters (40-50cm) with human gestures, which was pretty interesting, funny and cute at the same time. At the end we saw the testing of logistics-robots, which for example are deployed at Volkswagen Bratislava for increasing the efficiency.



## 4. Sightseeing-Tour Zilina

**Tuesday, April 2, 2017**

### **Sights of Žilina:**

After two exciting days in Bratislava we went to a smaller city called Žilina.



**Catacomb beneath the Jesuit's church**

The city Žilina lies in the middle of Slovakia with about 80,000 inhabitants not far away from the borders to Poland and Czech Republic. A special characteristic of the small town are some squares, which give a unique atmosphere to the town.

An example is the quadratic medieval marketplace with around 100 arcades and 45 burgher houses. The old city hall and the Jesuit's church with a monastery are situated there. Underneath it the historical catacombs of Žilina, which we visited right at the beginning of our stay, are located.



**Marketplace with arcades**

The Andrej Hlinka Square is the main square and is distinguished from the marketplace by its modern and open style. The famous Cathedral, the Church of the Holy Trinity, and the Burian Tower give this style more expression.

In consequence of the restricted time our sightseeing tour of Žilina was very limited.



## 5. Welcome Dinner

**Tuesday, April 2, 2017**

### **Welcome Dinner:**

On Tuesday evening we had the welcome dinner with representatives of the University of Žilina. We had an exciting bus ride to the restaurant Panorama Kolibar. The streets were very slim and the reversing possibilities for the bus were limited, and after some time we recognized that we were on the wrong way. After a complicated reversing maneuver of the bus driver, a short continuation of the bus ride and a short walking, we finally arrived at the restaurant. The restaurant was a typical Slovak restaurant with classical Slovak dishes like potato dumplings filled with sheep cheese, duck breast with raspberry risotto, apple-poppy strudel and vanilla sauce or cinnamon basket with vanilla crème. Typical Slovak white and red wines were served for drinking. We had a cosy and amusing evening and came back to the hotel very satisfied.



Cinnamon basket with vanilla crème

## 6. Slovak language course & presentations

### Wednesday, May 3, 2017

On Wednesday we started with a short crash course in Slovak language. With high interest we learned the most important words to be able to do small talk with our Slovak neighbours. Additionally they taught us how to explain the Slovak students what we are studying. The Slovak language is so important because Slovak is the Esperanto to Slavic languages. It was nice to see that a lot of Slovak words have their origin in German language. The course lasted half an hour.

After that great introduction in the Slovak language we did group works. The following two hours were led by Mr. Grünbichler, Mrs. Tatra and Professor Klucka, who spent the three days in Zilina with us. At first we went into the groups we selected already before. The groups consist of four to five students of all semesters from the bachelor to the master degree. The topics of the group works were for example Slovak companies in Austria, Austrian companies in Slovakia, Slovakia and Austria – History, culture and language, Slovakia and Austria – what unifies us, what separates us and doing business in Slovakia and doing business in Austria. Another two great topics were about student life in Austria and in Slovakia. It was nice to see that not only our colleagues had fun and big interest in the presentations, but also Mr. Klucka was very interested.



## **7. Company Visit NA – Schäffler**

**Wednesday, May 3, 2017**

After a sort lunchbreak, we headed off to the company INA Schäffler, which produces ball bearings, wheel bearings and several other components which are for example provided to VW Bratislava and shored in their motors.

To visit the company plant, we had to be divided in two groups. While one group started with visiting the production facility, the other group could listen to a presentation about the history and operating area of the company which has its origins in Germany.

At the second part of the presentation the company's management system was introduced. This is focused on the steady improvement of the production process to optimize costs and time of production. A very important part of that management program is transparency. Every employee should be able to recognize if the company has achieved its short-term goals and in which sector there are still problems in target achievement.

Also at the visitation of the production facility the management program of INA Schäffler was presented and it was showed how they apply it in practice. The so called shopfloor management works with an adapted signal light system. Through that system the different objectives and tasks and their achievement can be showed in each separate area of production. In addition, the production managers meet several times a week to discuss the future steps to approve the production process supported by the shopfloor management system.

This company visit was very interesting, due to the efforts of the enterprise in trying to give us a specific insight in the practical implementation of management processes.



## 8. Company Visit Public Safety Point

**Wednesday, May 3, 2017**

### **Public Safety Answering Point Zilina:**

On Wednesday afternoon, we visited the public safety centre in Zilina.

The basic idea of the centre is to unite all emergency forces, consisting of firefighters, ambulance, police and civil protection, within one building.

At the moment the number 155 is used for the ambulance, 150 for firefighters and the international number 112 for civil protection. All these organizations are located in one building. Only the police and the mountain rescue service aren't in the same place. The Mountain rescue service has its own base near the mountains to help people who have had an accident as quickly as possible. The Firefighters and the ambulance have their own emergency vehicles. However, the civil protection team contacts firefighters or ambulance when they need their help.

To sum up it is cleverer to dial the national number whenever you exactly know what kind of action force you need. The international number should just be dialled in case you don't know the international one, if you aren't sure about the action force needed or if you need more than one of them.



## **9. Company Visit Metsä Tissue**

**Thursday, May 4, 2017**

On the last day of our trip to Slovakia we have visited the finish company Metsä Tissue in Žilina. Metsä Tissue has 10 production facilities all over Europe (Finland, Germany, Slovakia, Poland and Sweden) and produces paper products like kitchen towels or tissues.

During our company visit we have seen their production process and they explained us how they got their material. As raw material, they buy whether big paper rolls (5 m diameter) or used paper. There is a considerable difference in the amount used for 1 kg of new paper. If you buy paper on the rolls you can produce 1 kg of for example tissues but if you use used paper, you need 1,7 kg to produce 1 kg of tissues. This difference is caused by the pollution of the used paper. The paper is polluted by ink or other dirt. Before starting the production, you need to separate the paper fibers from the excess materials. A single piece of paper can be recycled between four and five times.

The production process starts with soaking the used paper with water to clean it and to prepare the fibers for the intended finished product. At beginning the paper-water-mixture has a moisture degree of 99 %. Following the soaking and cleaning of the paper is a press which presses out approximately 50 % of the water. In the following press the moisture degree is reduced from 50 % down to only 6 %. This is possible because the press heats the paper from inside and from outside hot air dries the paper. After that the goods of Metsä Tissue are produced.

Annually Metsä Tissue needs about 80.000 rolls of paper (5 m diameter) for their production. At the maximum, they can produce 750 packs of tissues per minute. If one of their products should be printed, they offer 4 different color shades. A bigger variety is not offered because it would cost too much to clean the machines and prepare them for the new color. Additionally, it would cost too much time which results in higher prices. Even though the production is almost completely based on machines, Metsä Tissue still employs over 300 people in Žilina.

Especially noticeable is that the paper price is mainly influenced by the drying process. The energy costs, which are caused are the biggest part of the paper price. If the paper price rises, the price for used paper would increase approximately within the next 6 months.

The company visit through the production facility in Žilina was very interesting because you could see how something basic like paper is produced and how the price is fixed for an ordinary everyday item.



## **10. SARIO**

**Thursday, May 4, 2017**

Before our departure we went to the university of Zilina one last time to attend a presentation of the business “SARIO” (Slovak investment and trade development agency).

SARIO is an investment and external trade agency which provides its services at no charge. Its range of services comprise supporting Slovak businesses to establish themselves in foreign countries and making Slovakia more attractive for foreign businesses.

The presentation showed us the benefits of the business location Slovakia. Slovakia, which is situated in the heart of Europe, became a member of the European Union in 2005 and has had the Euro as its currency since 2009. Since 2005, the country has recorded a continuous economic growth with the result that an increase of 3.6 % can be expected in 2018.

Another benefit for foreign companies are the extensive language skills of young Slovaks and the new professional education program. Additionally, Slovakia is known for the third lowest payroll taxes within the European Union.

Austria represents the sixth most important trading partner for Slovakia, whereas Slovakia is the eleventh most important trading partner for Austria. Reasons for this excellent business relationship are amongst other things the same currency and the short distance between the two capitals Vienna and Bratislava (approximately 60 km).

We also heard that the economic structure of Slovakia is divided as follows: agriculture: 4.4%, industry: 33.6% and services: 63%.

The most distinct economic sectors in Slovakia are the automotive industry (KIA, Jaguar, VW, Land Rover), the electrical industry as well as shared service centers.

At the end of the presentation a special invention, which was developed in Slovakia, was shown to us. This technical marvel is a flying car which is called “Aeromobil”.

