Learning Diary

First day

During the first day of Sustainable Logistics intensive week there was introduction to the course and the participating schools were giving presentations on their home countries and on how sustainable logistics principles are implemented there.
The participating schools: Niels Brock Business College (Denmark, Copenhagen), Kaunas College (Lithuania, Kaunas), Haaga-Helia University of Applied Sciences (Finland) and Helsinki Metropolia University of Applied Sciences (Finland).
The students were offered 6 issues to be considered in their presentations, among which were: the role of logistics in their country, transportation modes used for export/import activities, impact of transportation modes on the CO2 emissions in their country, recycling and re-usage of packing materials, companies' concern about sustainability in the supply chain management, and projects of protecting the ecological sate of Baltic Sea in their countries.
Each school had own approach to the task, and everybody did their best. They were first telling about their school and then about the logistic activities in their country.

Then there were two presentations: 1) "Packaging and the environment" given by the representative of The Environmental Register of Packaging PYR Ltd. 2) "Future of the Baltic Sustainable Maritime Traffic", given by the Head of Marine Programme, WWF-Finland.
From the first presentation I learnt about the organization itself and how it works, and some new facts about packaging. For example, about packaging recovery. When packaging is taken out of use, it becomes waste. Packaging waste may be recovered in two ways:
- by recycling, as raw material for a new product: for example, to make cores in the paper industry from cardboard boxes, or new beverage cans from beverage cans
- recovery of packaging as energy: for example, incinerating wooden pallets, cardboard or plastic - plastic packaging is comparable to oil as fuel.
Merely sorting does not constitute recovery of packaging, while only packaging taken out of use is waste.
The second presentation (WWF-Finland) was also very interesting. I learnt about the marine programme supported by the government of Finland to protect the Baltic Sea and their concern about the Baltic Sea wildlife suffering from pollution and oil spill.
We were told that the programme includes commitments to establish an ecologically-representative marine protected area network in Finnish waters, and major actions to reduce pollution -especially nutrients from agricultural and urban sources, toxic chemicals from industry and accidental and illegal spills from oil tankers.

Day two

We were divided into groups for company visits. Our group had to visit Heinon Tukku Oy. The first part of the day we were preparing questions for the interview with the company's representative.
I didn't know anything about that company, besides the name. And it was quite difficult to find information about it, because theire is not much information provided on their official web-site, and also anything we could find was in Finnish.
Heinon Tukku is a specialist wholesaler of daily consumer products mainly in Southern Finland.
Heinon Tukku serves the HoReCa market (Hotels, Restaurants and Catering) i.e commercial and institutional kitchens as well as smaller grocery retailers trough its two business divisions: cash and carry and wholesale delivery. Cash and carry units are located in Helsinki and Vantaa and the

wholesale delivery units are located in Espoo, Turku, Tampere, Oulu and Kuopio. Heinon Tukku serves from professional to professional with widest selection of products and service. Heinon Tukku provides approximately 25 000 products to its wide customer base consisting of over 25 000 companies. The company has a special focus on fresh groceries and niche products.
The visit of the company and the interview were informative and we got an impression that they care about the environment and do they best to be "green". Jari Ahtee, wholesale Manager of Heinon Tukku showed us around Heinon Tukku's Espoo facility and told us what they are doing to be green.

Day three

Visit of Vuosaari harbour.
The port of Helsinki has opened a new cargo habour at Vuosaari, with direct connections to the entire Finnish main road and railway network. From the beginning, the new port has been build to suit the needs of future cargo traffic. The cargo and logistics companies in the area form a Harbour Center with versatile services. The large volumes and frequent scheduled traffic to the ports in northern and western Europe are a core strength of Helsinki's port. The balance between imports and exports and high quality harbour services allow logistics companies to operate effectively.
Vuosaari harbour opens a cargo transport broadband connection for Finland the world over. The harbour offers the most frequent shipping services between Finland and northern Central European ports.
A motorway connects the harbour directly to the main road network and s railway links with the main railway. There is a fast connection to the logistics centers along Ring Road III and to Helsinki-Vantaa airport. There is also a passenger terminal in Vuosaari Harbour. The passenger-freight vessels operate daily between Vuosaari Harbour and Germany.
The port of Helsinki is the main port for international trade and the busiest passenger port in Finland. It caters to the Finnish business community and for the transport needs of the whole country. Helsinki provides all the services needed when changing from one mode of transport to another. Port services are provided by private companies and in passenger traffic also by the Port of Helsinki. The most important collaborations partners include shipping lines and harbour operators, haulage and forwarding companies as well as various authorities.
The port of Helsinki operates in the centre of city and Vuosaari, each playing a special role in the overall port process. The Vuosaari Harbour is the centre of container and roro traffic, i.e. trucks and trailers. Passenger traffic is mostly concentrated in the South Harbour and the West Harbour.
The logistics area next to the Vuosaari Harbour houses logistics service providers, enabling a flexible and fast movement of goods. The logistics area is meant for incoming and outgoing cargo loading and unloading, containerisation and recontainerisation, short-term storage and other similar logistics operations.

Q1) Sustainable logistics in the Baltic countries and the Scandinavian countries.

It is well known that the Scandinavian countries Denmark, Finland and Norway were already working on environment-friendly logistics solutions at an early stage, and have won numerous rewards for their commitment. We can see a lot of examples. One of them is DB Schenker (the presentation was given on the 11th of September by a group of students).
The Baltic Sea is becoming increasingly important as a strategic trade and energy transport corridor. For trade in the Baltic region, infrastructure is not only a question of transport. It is equally a question of creating viable solutions by the neighboring countries. It is still in the process - developing transport concepts which will secure both the competitiveness and efficiency of

transport in the Scandinavian and Baltic countries, and which at the same time means a new period in which transport is developed in an environmentally responsible manner.

Lithuania acts as a key transport hub in the CEE region linking the Western and the Eastern Europe; the EU has designated three major routes in Lithuania as being among the ten most important freight routes in Europe. Lithuania has a well developed transport infrastructure, and major logistic centers are being developed near key ports and motorways. One of the main transport policy objectives is to integrate Lithuanian transport infrastructure into the Trans-European Networks (TEN). Two out of the nine multi-modal transport corridors that cross Lithuanian territory were approved as being of major importance: International Corridor No. 1 in a north-south direction (the Via Baltica motorway and the Tallinn-Riga-Kaunas-Warsaw railway) and Corridor No. 9 in an east-west direction consisting of 9B (Kiev-Minsk-Vilnius-Kaunas-Klaipeda) and 9D (Kaunas-Kaliningrad). Lithuania is actively implementing the infrastructure development guidelines.
Sea routes through Klaipeda State Seaport extend the road and rail lines of the east/west corridor 9B to other European seaports. Klaipeda State Seaport is one of the ice-free ports on the eastern coast of the Baltic Sea, and is able to receive ships up to 200 m in length and with a draught of 10.5 m.
The strengthening transport system and increasing cargo flows is one of the weighty challenges for the social and eco environment of the Baltic Sea region.
According to Lithuania, innovative approach is a main way to avoid negative impact of the traffic growth. EWTC project (East-West Transport Corridor) is good example of a Green Transport Corridor in line with EU's latest transport policies also meeting market demand for more efficient and environmental friendly transports. The aim of the project is to develop and work for efficient, safe and environmental friendly handling of the increasing amount of goods moving east west in the South Baltic region. The project joins forces of stakeholders in the region to enhance sustainable transport planning and innovative solutions in the field of transport.
Challenging business development along the corridor, the transport sector will stimulate the economic growth along the entire East West corridor.

Denmark: Governmental plan of sustainable transport. The Government intends to take Denmark's transport policy in a green direction, without sacrificing Danish world class infrastructure. A plan introducing green taxes which will make Danes think about CO2 and the environment when they buy a car; and intelligent road pricing and charges which will make us use our car when and where it causes the least congestion, noise and pollution.
– Less CO2 – transport-associated CO2 emissions must be reduced. The trend must be reversed.
– Greener vehicular traffic – shift to green car tax.
– More public transport and cycling – public transport and bicycles must carry the greatest part of the projected growth in traffic.
– A better railway network – the rail network must be reliable, safe and state-of-the art.
– Better roads – congestion must be reduced.
– New green technologies – Denmark must be a green technology tested for transport.
– Greater regard for nature – bridges, roads and railways must not destroy irreplaceable natural assets.
– Reduced noise and air pollution in urban areas – cars are the main source of noise and air pollution in Danish towns and cities.
(Additional information was found from the official site of Ministry of Transport)

Finland
The national company supports and trains its drivers using an electronic system (on-board unit) that monitors driving behavior and measures various parameters, such as speed, fuel consumption, etc.

This permits exact, permanent control to achieve efficient and environment-friendly driving behaviour. Successful drivers receive a monthly success bonus.
Finland (Ministry of Transport and Communications and its administrative sector) has new programme *Environmental guidelines for transport sector till 2010,* which is third in order, covers years 2005-2010.
- reduction of transport-related greenhouse gas emissions;
- reduction of other exhaust emissions and improvement of air quality;
- reduction of noise emissions and reduction of number of people annoyed by traffic noise;
- reduction of other environmental and health problems caused by transport (pollution of waters and soil, biodiversity and waste problems); and
- development of transport system to become ecologically more sustainable

Q2) Similarities or differences in sustainable logistics in the Baltic and Scandinavian countries

The Baltic and Nordic countries are known for their similarities in terms of history, geographical location, size and economic trends, but they also have major dissimilarities that are difficult to ignore: different languages, cultures, mentalities and population patterns, to name a few.
The successful development of the Baltic Sea Region depends heavily on a well performing transport system. This region, which is located outside the economic centre of Europe, but dynamic and highly dependent on foreign trade in goods, needs transport infrastructure for its economic prosperity. Focusing on the interconnection of national networks and links between the EU's peripheral and central regions, the trans-European transport networks have a particular importance for the Baltic region. The trans-European transport networks policy aims at ensuring the functioning of the internal market as well as economic and social cohesion in the EU through realising a number of strategic priority projects. Furthermore, it contributes to sustainable development objectives by minimising negative environmental effects. In all those countries there are projects aimed to protect the Baltic Sea and reduce the damages caused to environment.
More and more requirements are placed on the freight transport and logistics companies of the world.
The sustainable logistics aims to contribute to the sustainability of manufacturing by improving its ability to better manage the supply chain “end to end”, ensuring that everyone in the chain focuses on end customer service while sharing risk and rewards through waste minimisation, both in economic and environmental terms.

Q3) Group presentations

Heinon Tukku Oy (see *day two and the group work report*)

Kuusakoski Ltd.
With environmental problems constantly on the increase, more attention is paid to the recycling and reuse of various materials. The aim is to reduce the amount of material that could be reused by industry but now ends up in dumping sites. In line with EU legislation, Finland is implementing the principle of manufacturer's responsibility, according to which manufacturers and importers are responsible for arranging the recycling of their products when the owners want to get rid of them. Currently, manufacturer responsibility legislation covers, among other products, cars, tyres, electric and electronic appliances, and packaging and paper.
Established almost a century ago, Kuusakoski Recycling, a Finnish company, is the leading industrial recycling services company in northern Europe and one of the world's largest refiners and suppliers of recycled metals. The company has over 100 business locations worldwide, including Russia, the three Baltic states, Poland, Sweden and China.

Kuusakoski operates in 20 business locations in Finland, the largest of which is in Heinola, in the southeast. It is also the largest recycling plant in the Nordic countries. Kuusakoski Recycling's turnover exceeds EUR 800 million and the company employs more than 2,000 workers trained in recycling.
Kuusakoski annually treats about 2.5 million tonnes of various recycleable materials, most of which is scrap metal. Its recycling services are mostly intended for the metal industry and manufacturer organisations that are obligated to attend to the recycling and reuse of scrapped cars, electric and electronic appliances and car tyres.

DHL Finland

Beyond the concern about CO2 and other global emissions, the other key environmental areas for transportation companies are local emissions of air pollutants and noise. In addition, there are the same issues as all other companies need to address - eg, recycling waste and minimising use of energy.
DHL is concerned about environmental problems. Apart from own initiatives, they are a signatory of the UN Global Compact, which emphasises a precautionary approach, the undertaking of environmental initiatives and use of environmentally friendly technologies. Efficient use of DHL transportation networks and the advanced expertise in logistics is not only good for business, but reduces environmental impact from their operations.

- Reducing CO2 and other global emissions from our vehicles, aircraft and facilities
- Reducing local air pollution from our vehicles and facilities
- Reducing noise pollution from DHL aircraft and vehicles
- Minimising waste from DHL facilities and increasing recycling
- Reducing energy consumption
- Offsetting remaining or non-reducible emissions to achieve a zero net impact of greenhouse gas emissions, for example by investing in schemes such as sustainable forest planting or renewable energy projects
- Introducing products such as Green Tonnage, where transport is made using bio-fuels, thereby reducing CO2 emissions

DHL uses **ISO 14001** is the internationally recognised standard for Environmental Management Systems (EMS). It is a voluntary standard, with achievement verified by a third party certifier, which is standard best practice. ISO 14001 requires companies to identify their environmental impacts and continually improve their performance within set objectives. Certification guarantees customers, suppliers and regulators that a company is committed to improving its environmental performance.
The company is also developing a Global Environmental Management System (GEMS), the global framework for managing the environmental aspects of our facilities and operations. GEMS aims to prevent negative environmental impacts and manage responsibly those impacts that cannot practicably be prevented or offset.
The primary purpose of GEMS is to put in place basic EMS at all our facilities and to guide the attainment of ISO14001 certification for appropriate entities. It will also involve the development and co-ordination of projects designed to manage our identified environmental impacts and to promote continuous improvement in environmental performance.

DB Schenker Finland

One of Schenker´s goals is to become the most environmentally sustainable logistics provider in Finland. Although transport has been one of the principal factors in the modern unprecedented

economic and social development, DB Schenker has no doubt that transport activities widely affect the environment and human health. Noise, health hazardous pollutants in urban areas, acidification and increased greenhouse effect - traffic contributes to a large extent to many of today's environmental problems. It also results in increased land-use for transport infrastructure, oil spillage, road fatalities and congestion in urban areas.
With its defined lighthouse projects “Green Logistics Networks”, “Green Road”, “Green Product Rail” and “Green Terminals”, DB Schenker is leading the way in the logistics sector, and at the same time, DB Schenker is making a major contribution to the “DB Eco Program”, the global warming management program of the DB Group. On this basis, DB will reduce its specific carbon output worldwide, i.e. its carbon emissions relative to its transportation volume, by another 20 percent between 2006 and 2020. (*source* www.deutschebahn.com)
“Green Logistics Networks” stands for DB Schenker’s international transportation network that covers all the modes of transportation worldwide, including trucks, rail freight carriers, ships and aircraft. DB Schenker combines the strengths of each mode of transportation in order to provide a more cost-effective and more environmentally friendly overall product to its customers. An intelligent modal split, for instance, links the flexibility of road haulage with cost-efficient and energy-efficient rail transportation. For DB Schenker, environmental protection begins before freight is transported. DB Schenker’s environmental experts carry out detailed carbon footprint calculations and give advice on ways to reduce carbon emissions.
“Green Road” is a lighthouse project which combines all the activities carried out to achieve sustainable land transportation by road. In this context, it is mainly the mix of many specific environmentally friendly measures that helps to reduce the pollution load from road haulage.

Association of Packaging Technology and Research – PTR

PTR was founded 1982. The members of PTR are private companies, packaging affiliated associations and research institutes. PTRis a member of the IAPRI (International Association of Packaging Research Institutes)
Today's companies in the packaging supply chain are faced with acknowledging, understanding, addressing and managing a range of issues affecting the sustainable use of packaging. Issues include the use of renewable and non-renewable resources, recyclability, regulations, and material and transport costs. Ongoing demographic and life-style changes, technology changes, environmental issues (in particular as recognised by legislation and/or voluntary agreements in numerous countries), consumer dynamics, and supply chain demands are important factors of influence for the packaging supply chain.
It is a non-profit organisation co-ordinating packaging research in Finland. According to its code of conduct, PTR collaborates with experts from different fields to carry out research projects.
has an unofficial independent advisory status when packaging is planned in Finland.
PTR takes actively part in the European standardisation of packaging (CEN/TC-261) and collects the databases required by the EU directive on packaging and packaging waste (94/62 EU) together with The Environmental Register of Packaging PYR Ltd and Pirkanmaa Regional Environment Centre.
PTR co-ordinated the Packaging Technology Programme 1994-1999, and the Safety and Information in Packaging Innovation area, which were financed by the Finnish industry and TEKES, the Finnish Funding Agency for Technology and Innovation.
(*source* http://www.iapriweb.org/packaging_research.html)

Sinebryuchoff (Carlsberg Group)

The company has recommended themselves as a safe and dependable brewery and soft drink manufacturer. Quality and environmental consideration are going hand-in-hand. The basis is the

continuous improvement of the operations, a respect for nature, the prevention of environmental impacts, as well as compliance with environmental regulations. Sinebryuchoff's concern for the environment can be seen clearly in the selection and use of raw materials as well as in the reuse and recycling of by-products and waste.
The pro-environmental actions: unnecessary transports have been eliminated and trip distances have been shortened. EDP-based route planning enabled Sinebryuchoff to optimise transport routes, consume less fuel, and reduce traffic-generated environmental impacts, including carbon dioxide emissions.
Concerted efforts have been made to minimise their own energy consumption. Thermal energy is generated at Kerava Energy Ltd's natural gas-powered heating plant that also produces heat to meet the city's needs. The hot thermal energy used by the brewery is slightly cooled, then transferred for the city's use. From the environmental standpoint, the result is more economical heating production and lower emissions.
They promote the recycling of plastic and glass bottles, aluminium cans, drink crates and honeycomb boards with other breweries, the Finnish Federation of the Brewing and Soft Drinks Industry and PALPA.
Sinebrychoff was the first brewery in Finland granted ISO 14001 certification (in the year 2000) for its environmental system. A certified environmental system was built in connection with the ISO 9001 quality certification granted to the company in 1997. (source www.sinebrychoff.fi)

Q4) Quite many things were new to me and I learnt a lot during the company visit, presentations on the very first day of the course and during the last day as well.
As far as I was not that well aware of sustainable logistics in general, I did not have any idea of what was the vision of sustainable logistics in each of the presented countries, what are the Baltic and Scandinavian countries governments' actions towards achieving the sustainability, and that is why the course was quite informative for me.
Also it was very interesting to learn some facts about how the environmental concern is implemented in real life. What are the actions undertaken by companies who announce themselves as being green. What is done to achieve the sustainability. Many companies are designing their products to be more environmentally friendly, and many are using more environmentally friendly packaging materials. Sustainable logistics is actual and an upcoming trend nowadays. Responding to environmental issues is one of the major challenges facing logistics and supply chain management in the foreseeable future.
I would like to know more about what the companies in different business spheres are doing to be environmentally responsible within their own operations as well as promoting those practices to the customers.