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Quarterly Journal of Open ENLoCC



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Past and present issues.

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Cover photo (Martin Brandt): "Removing barriers." Street art, attributed to Clet Abraham of Florence.

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Editorial

Ten years of cooperation and networking are behind us. It started as a cooperation among five partners in four countries, actually in 2004 already as a project, co-funded by the EU under the Interreg programme. On November 17, 2006 the "ENLOCC" project opened up to regional logistics competence centers from across Europe, and changed its name into "Open ENLOCC".

Since that time, we have debated projects and project ideas. We helped each other with mutual regional and specialized logistics knowledge. We gathered and shared project results. And we spread our own as well as each others competences. In the context of the Open ENLoCC network, we add the regional perspective and competence, but we as individual institutions also cooperate with many other institutions.

After ten years, it was time to celebrate. We met in Brussels on November 17, together with people from other institutions that also deal with logistics. A short report is on the center pages of this issue, together with a set of pictures that speak for themselves.

As usual, most of the "Review" is dedicated to sharing of knowledge. Electromobility is a hot issue for regional logistics. More and more, delivery services use electric vehicles or are urged to do so. Time to ask a specialist upon the chances of electric driving. Joeri Van Mierlo has the answers.

Urban logistics has many facettes. The Citylab project adds to several of them. We report about one of the project's pilot services, that is to start next spring in Brussels.

The size of container ships has impacted both ports and hinterland, forcing regional infrastructure to adapt. The Global Shippers' Forum has published a report on other side effects. We think this is worth reading. Can the only regional answer always be just to adapt?

When looking at a world map, one would not assume that the shortest link to East Asia may be via Finland. But navigators, familiar with the idea of the Great circle, know that distances on a globe can be quite different from what they look like on a map. A town in Finland builds on that in order to become a hub for rail freight between Northern Europe and China.

Should you want to cross the lower Danube river, you may face logistics problems quite different from urban logistics or other issues related to population density in the central parts of Europe. But they are certainly no less urgent from a regional perspective.

A regional perspective adds specific competence to our network member KLOK in Stuttgart Region, which is also featured in this issue. Furthermore, find a classic text by Adam Smith, as well as lots of news and relevant dates – and please feel free to share them!

December 2016

Giuseppe Luppino President "Open ENLoCC" Institute for Transport and Logistics (ITL), Bologna

News

Road map on combined transport

A "Proposal for the amendment of the Directive 92/106/EEC of 7 December 1992 on the establishment of common rules for certain types of combined transport of goods between Member States" by the EU commission is open for comments. So far, the following problems are identified to be tackled: Complex and ambiguous definition of combined transport, ineffective incentives, outdated provisions relating to transport documents making it difficult and costly for industry to prove eligibility, and also a lack of overview of market developments.

Public consultation

In the following topic linked to logistics, the EU commission asks for opinions via <u>http://ec.europa.eu/yourvoice/consultations/index_en.htm</u>:

• <u>Transport:</u> Public consultation on the fitness of EU legislation for maritime transport safety and efficiency. Open until January 8, 2017.

DESTINATE

Trains can be noisy. And the train noise comes in irregular intervals, which makes it especially unnerving for nearby residents. There are many ways to reduce that noise, beyond the noise barriers along the track.

Open ENLOCC member NewRail's Railway Technology team has become a partner in the DESTINATE: DEcision Supporting Tools for Implementation of cost-efficient railway Noise AbaTEment measures project, which aims to enhance railway sound quality by improving the identification of costeffective solutions via effective and reliable techniques, methodologies and tools, and assessing the usability of new technologies for railway noise & vibration control. For more, visit bit.ly/2h2wIRM

Regional impacts of Hanjin insolvency?

The immediate consequences of the Hanjin insolvency to the supply chains by now are solved: The cargo has left the ships and generally has arrived at the customers. The legal questions, however, are far from solved. Many owners of "Hanjin" lettered containers now have them repainted. This has no legal impact, but owners apparently want to avoid the containers getting stuck somewhere by misunderstanding.

For more important long-term consequences to the regions of yet another world wide service exiting the market, see page 17.



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Regional estimates of commodity flows

The US Transportation Research Board's National Cooperative Freight Research Program (NCFRP) has issued a pre-publication, non-edited version of Research Report 37: Using Commodity Flow Survey Microdata and Other Establishment Data to Estimate the Generation of Freight, Freight Trips, and Service Trips: Guidebook. The guidebook provides policy makers with improved establishment-level models that estimate the Freight Trip Generation (FTG), the number of vehicle trips produced and attracted at a given establishment; the Freight Production (FP), the amount of cargo produced by the establishment; and the Service Trip Attraction (STA), the number of vehicle trips that arrive at the establishment to perform a service activity. These models, estimated with the best data available, provide tools to assess the various facets of the overall Freight and Service Activity (FSA) that takes place in urban and metropolitan areas. Regional examples are given. The models will allow transportation practitioners to conduct sound curb-management, properly size loading and unloading areas, support traffic impact analyses, and improve transportation planning and management efforts.

Contributors: National Academies of Sciences, Engineering, and Medicine; Transportation Research Board; National Cooperative Freight Research Program; José Holguín-Veras; Catherine Lawson; Cara Wang; Miguel Jaller; Carlos González-Calderón; Shama Campbell; Lokesh Kalahashti; Jeffrey Wojtowicz; Diana Ramirez.

For the time being, the work is available as a non-authorized free pdf via <u>www.nap.edu</u>. In November, it was listed among the most downloaded publications of the National Academy Press in the field of transportation. Note that the book is subject to revision and not (yet) an official publication of the Transportation Research Board.

"Look inside the vehicle": Conference on urban freight, Gothenburg



Big size cargo bike trailer, presented at the conference. *Photo: Carl-Magnus Carlsson*

From October 17 – 19, the second international VREF conference on "Urban Freight 2016: Plan for the future – sharing urban space" in Gothenburg gathered over 140 researchers, experts, and practitioners in the field from all over the world. The conference was hosted by Michael Browne and Maria Lindholm on behalf of the Urban Freight Platform (Chalmers University of Technology, University of Gothenburg and VREF, Volvo Research and Educational Foundations).

Although the presentations covered diverse topics, from off-hour deliveries, autonomous vehicles in urban distribution and noise assessment to micro-terminals, governance and digitalization, the common denominator was to address the freight challenges faced by growing cities of today and tomorrow, and to share good practices.

Present were some of the most renowned researchers within urban freight, among them José Holguín-Veras, Rensselaer Polytechnic Institute, Eiichi Taniguchi, Kyoto University, Hugo Yoshizaki, University of Sao Paulo, Laetitia Dablanc, IFFSTAR/University of Paris-East and Tom van Lier, Vrije Universiteit Brussels.

A central quote from the conference could be: "Change the focus from freight traffic to what is inside the vehicle – all the way from shipper to receiver", by Toril Presttun of the Norwegian Public Road Administration, one of the presenters at the conference. /CM

The 30th International Electric Vehicle Symposium & Exhibition: Call for Papers

The 30th International Electric Vehicle Symposium & Exhibition (EVS30) will be held in Stuttgart (Germany), October 9 - 11, 2017 and is calling for papers. EVS30 is a high-level academic symposium, serving the electromobility sector.

Among the topics of interest to goods mobility from a regional perspective are: Freight transport and heavy-duty vehicles, Business models, Urban mobility concepts, Mobility as a service, Fleet management. Deadline is January 20, 2017.

Evaluations are carried out by the EVS30 Scientific Program Committee, consisting of over 250 industry experts from around the globe. The committee is chaired by Joeri van Mierlo, Head of the Mobility, Logistics and Automotive Technology Research Center, Vrije Universiteit Brussels and Prof. Hans-Christian Reuss, Managing Board of the Research Institute for Automotive Engineering and Vehicle Engines (FKFS).

Publication: Engaging city stakeholders for urban freight

New publication on urban freight: Zunder TH, Aditjandra PT, Schoemaker JT, Vaghi C, Laparidou K, Österle I. <u>"Engaging city stakeholders to achieve efficient and environmentally friendly urban freight movements."</u> In: Corinne Blanquart; Uwe Clausen; Bernard Jacob, ed. Towards Innovative Freight and Logistics. John Wiley & Sons, Inc, 2016, pp.275-287.

Subordinate Clauses Reveal: "Father Christmas" Logistics Purely Symbolic!

Many families in the Western world and beyond trust the "Father Christmas" service to deliver Christmas presents. Questions exist regarding available capacity, which is apparently limited to the owner in his iconic red suit, plus a reindeer sledge. Now, subordinate clauses reveal that the contracted "service" is purely symbolic: It remains the responsibility of parents, friends and relatives to buy and deliver presents.

Popular internet sources keep accusing EU rules on chimney dimensions for causing unequal goods delivery to households with children. Concerned parents applied for EU funding to test alternative routes, avoiding chimneys altogether (photo: sole test run). Sceptic EU programme officials explain that this by itself would not cause a more equal distribution. However, they are urged to give the project a try for next season. /MB ("Happy New Year!")



NewRail project in Brazil

Dr Marin Marinov of Open ENLoCC member NewRail has completed his 3-month researcher mobility project, with UFSC-Joinville, Brazil. The project is designing new rail services for the Brazilian state of Santa Catarina. Dr Marinov is hoping for a fruitful continuation, leading to the development of:

- A technical memorandum and specifications for the newly designed rail services (envisaged as the scope of a joint research project)
- Strategies for analysing the behaviour of freight and people in urban and suburban areas and the potential for implementing metro and light rail systems in Santa Caterina;
- A rail-orientated intensive course, to be delivered jointly by UFSC and NewRail academics, and the establishment of a rail operations laboratory at UFSC.

Brazil has a significant potential for increased rail freight and Dr Marinov has also discussed Rail Freight operations and technologies with the Federation of Industries of the State of Santa Catarina (FIESC).

Dr Marinov will also be the UK PI in a railway-orientated event to be organised next year in Santa Catarina. Working with the Acires Dias Universidade Federal de Santa Catarina, Brazilian and UK researchers will exchange knowledge about how railways contribute to improving quality of life. Dr Marinov recently received certification from ANPET – National Association of transport research and education in Brazil, aspecialised forum for transport-orientated discussions, seminars, and decision-making.

People

Zeno D'Agostino, once Managing Director of former Campania logistics agency and Open ENLoCC member LOGICA, has in November 2016 been confirmed as President of Trieste Port Authority. D'Agostino, in previous positions also Secretary General of Naples Port and head of Bologna Interporto (a major freight village), has run the port of Trieste on a temporary base since early 2015. He is an expert in rail and hinterland connections and has already greatly increased rail hinterland transport to and from Trieste.

<u>Tomasz Dowgielewicz</u>, long-term employee of Open ENLoCC member ILIM and last in the position of Head of Market Operations Unit, has left ILIM to join the Norwegian know-how and technology consultant for Transport and Logistics, Marlo. In his new position as Managing Director of Marlo Poland, he is working from Poznań.

<u>Dr Anna Fraszczyk</u> left Open ENLoCC member NewRail at the end of September, after 10 years at Newcastle University. She began her Postdoctoral Fellowship at Mahidol University, Thailand, in October.

<u>Conor O'Neill</u> has left NewRail to take up a position with Hitachi Rail Europe in Newton Aycliffe.

NewRail also said goodbye to <u>Dr Ramy Shaltout</u>. Ramy is returning to his native Egypt, to take up a lecturing post at Zagazig University.



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KLOK Logistics Cooperation Center

Kornwestheim and the Stuttgart Region, located centrally in the southwest-German state of Baden-Württemberg, in general are known not only for their automotive and machinery industry and their strength in manufacturing, but also for their agglomeration of logistics and logistics experts. The Cooperation Centre Logistics (KLOK) networks the important people and organizations working in this field, thereby providing access to much innovative knowledge about the optimal use and control of logistical processes.

KLOK is set up by the region and municipalities, together with further institutions interested in logistics. With its competence, KLOK serves as interface between the regional economy, administration and politics. Searching for partners across Europe, it has been one of the founders of the Open ENLoCC network, in which it serves as the secretariat.

Regional logistics competence

For many good reasons, KLOK was set up as a regional logistics competence center in Stuttgart Region:

- Logistics activities have a great effect on employment.
- Logistics jobs for the most part will not be shifted to other countries.
- Therefore, logistics jobs are more secure than industrial jobs.
- For more demanding logistics activities, the required qualifications must be available.
- Goods mobility is a precondition for a thriving economy and good consumption in Stuttgart's conurbation.
- Extent and organization of goods transport is much less documented than passenger transport.
- Traffic growth can only be controlled by knowing about the economic causes.
- Traffic shift from road to rail is no sure-fire recipe for success.

KLOK works along these lines in regional projects as well as in cooperation projects with partners from across Europe.

Regional logistics projects

In the past years, KLOK has helped to improve the understanding of the mutual implications of goods mobility and urban planning in several projects:

- A regional <u>circle of goods mobility</u> has brought together stakeholders from the main institutions dealing with transport and logistics in the region, among them the chamber of commerce, urban transport planners, urban planners and regional planners.
- Cooperation within the <u>downtown goods mobility circle</u> of Stuttgart, initiated by the regional chamber of commerce and now run by the city's Urban Freight Manager.
- Regional <u>analysis of rail freight facilities</u>. The existing infrastructure for rail freight was not systematically known, since it is mainly private and not always utilized. KLOK has collected information about the whole rail freight infrastructure, not just



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Mobility and logistics in Stuttgart Region: Automotive industry (above: Mercedes-Benz museum), urban logistics (previous page), rail transport (below).

Photos: KLOK

for regional planning purposes, but also to open up new options for modal shift towards rail. The same effort was made towards the commercial <u>inland waterway facilities</u>, of which there are quite some in Stuttgart Region, along the Neckar river.

- The current "OPTiGG" project aims to limit truck mileage near industrial areas by suggesting strategic positions for truck gas stations.
- Besides, KLOK consults member institutions in Stuttgart Region individually in questions of urban logistics, goods transport and logistics related land use.

Furthermore, KLOK will take part in a state-wide joint booth on the Munich transport logistic fair in 2017.

Interregional and European cooperation on understanding and improving logistics flows

Over the years, KLOK has taken part in a large number of international projects, mainly within Interreg and Intelligent Energy. These projects are so important for the region partly because of their inherent knowledge exchange, and also because logistics by its very nature means goods movements not only within, but also between regions. The result-ing questions, both of the logistics industry and of the society in which the industry operates, cannot be solved in one region alone.

For the past years, KLOK was working on projects that have been of specific importance to Stuttgart Region:

- In several projects, co-financed by the EU Interreg programme, KLOK has worked on improving rail service across the Alps (Alp-Frail, Transitects, SusFreight). In Stuttgart Region, the link to northern Italy and Mediterranean ports is seen as crucial for future development.
- In the C-LIEGE project, co-financed by the EU's "Intelligent Energy" programme, KLOK has first tested the adaption of soft measures to make urban logistics more sustainable.
- The current SULPiTER project, co-financed under the Interreg Central Programme, will lead to a regional sustainable urban logistics plan, capitalizing on the previous experience in cooperation of local and regional stakeholders.

KLOK is always interested in international logistics knowledge exchange with regional implications, and in cooperation among regional competence centers, in all fields of logistics.



This is a shortened version of the original interview. Read the full text at http://mobi.vub.ac.be/mobi/news/ electric-driving-sparking-your-

interest/.

Joeri Van Mierlo Electric driving: sparking your interest

While climate change sparks interest in electric driving, it raises many questions as well. Professor Joeri Van Mierlo tackles them one by one.

Is electric driving really the best solution for the environment?

The short answer is yes. When discussing environmental impact, it is important to take into account the full life cycle of a vehicle. We have developed reliable computer models for this purpose. This allows looking beyond emissions from the vehicle itself to the environmental impact of batteries, the production of electricity and beyond.

In a full life cycle, electric vehicles emit two times less carbon dioxide (CO_2) in comparison to diesel engines if we take the European electricity mix. If cars were driving on sustainable electricity, carbon dioxide emissions could be further reduced by a factor of 15.

If we look at vehicles from a "well-to-wheel" perspective, electric vehicles produce four times less particulates and 20 times less nitrogen oxides (NOx) (Belgian example) compared to conventional vehicles. However, we need to stress that the exploitation and mining of raw materials in South America and China leaves much room for improvement. Recycling can further reduce the environmental impact.

As far as CO_2 goes, diesel engines exhaust 20% less in comparison to petrol. Yet the difference between both fuels is annually decreasing.

Also biofuels produce 40 to 60% less greenhouse gasses, but they do not significantly improve air quality. Moreover, we need surfaces as large as 2 football fields to power one car per year. We do not have the space in Europe and would therefore move this supply problem to other countries with many undesired side effects.

There are other fuels such as natural gas or liquefied petroleum gas (LPG). They have a less negative impact on air quality and are thus better for our health. On the other hand, however, they do not offer a real solution for climate change.

Fortunately we have life cycle analysis models (LCA) to compare all these factors in an unbiased way. If we take into account both climate change and air quality, the difference between petrol, diesel, LPG and natural gas driven cars is minimal. Hybrid and plug-in hybrid vehicles can improve scores with a factor two. The overall environmental impact of battery-electric vehicles can be up to five times smaller than conventional fuels, in case we consider for example the Belgian electricity mix.

Sometimes we hear that hydrogen is the true and only zero emission solution. Yet, also hydrogen needs to be produced. If we produce hydrogen with natural gas there is no advantage as far as greenhouse gases go. So you need to produce hydrogen from sustainable energy sources. But the problem is that you need three times more wind turbines to drive a hydrogen-powered car in comparison to a battery-electric vehicle.



Prof. Joeri van Mierlo, Head of the Mobility, Logistics and Automotive Technology Research Center (MOBI), Vrije Universiteit Brussels. MOBI is member of Open ENLoCC. www.mobi.avub.ac.be



How do electric vehicles affect our economy?

Research indicates that the electrification of our transport system would generate one million additional jobs in Europe in 2030 and double in 2050. These jobs relate to the production of components for electric vehicles. But they also relate to new services, such as charging infrastructure for example.

Electrification is also positive to reduce our oil dependency. The import of oil costs the European economy one billion euro per day. It is suggested however that loss of income from duties and taxes on diesel and petrol will negatively impact government budgets. Improved air quality will have a positive effect on the health budget. Less expenses for health care, but also cleaning of monuments for example.

What will our vehicle fleet look like in 2050?

Apart from electric cars, self-driving or autonomous vehicles will have made their appearance by 2050. It will be no longer necessary to own a car but define your needs. In you3r smartphone you plan your car, like you plan other items in your agenda. At 7am a fully charged vehicle will be waiting on your driveway.

Will electric driving cause power shortages?

Suppose that 10% of our fleet would be electric, this would only mean an additional demand for electricity of 1,4%. The battery of an electric vehicle can play an important role in energy storage. When too much electricity is produced, it can be stored in the batteries of cars. When there is not sufficient electricity, they give it back to the grid. This is what has been called V2G or 'vehicle to grid'.

It is therefore important to research how we can give batteries a 'second life' and how they can be recycled.

How far can you get in an electric car?

Driving range is an important issue and depends on many factors, first of which of course the battery. In a Tesla you can cover 400km today, but the typical autonomy of electric cars is more in the range of 150km. Driving range is also dependent on driving style, weather conditions and the desired comfort.

The need for public charging infrastructure is dependent upon families owning a garage. Apart from standard charging points, fast chargers will find their place on motorways, in cities and in suburban areas. These fast chargers can fully charge a battery in 15 to 25 minutes.

The development of batteries is taking fast leaps forward. Within five years a battery will double its storage capacity and by 2020 its price will be halved.

Will everyone drive electric vehicles in the near future?

The reality is that we cannot change an entire fleet overnight. In other words it will take a while before all cars are electric. We also depend on policy makers and the incentives they offer. As a result of fiscal policy, in Norway for example the best selling car is not petrol or diesel but an electric car.



Symbolic photos (3): Martin Brandt



Left, from top:Open ENLoCC celebraGiuseppe Luppinosels on November 1President Open ENLoCChave shown that the

Brussels, 17 November 2016:

10 years of the Open ENLoCC Network

Opening the event; during the session presenting the SULPITER project

Aki Ishiwa Delegation to the EU of Emilia-Romagna Welcoming on premises

Désirée Oen DG Move Delivering the keynote

Karen Vancluysen POLIS Secretary General Introducing POLIS Network

Lina Konstantinopoulou Head of Department, ERTICO – ITS Europe Presenting ERTICO and Novelog Project

Right:

Aki Ishiwa Lorenza Badiello Head of Delegation to the EU of Emilia-Romagna Andrea Luccaroni Municipality of Faenza Andrea Bardi Director ITL Bologna

Below: Listening to the keynote speech

Photos: Chorstwagner.eu

Open ENLoCC celebrated its 10th anniversary in Brussels on November 17. Ten years of Open ENLoCC have shown that the European regions are the key element to bring logistics further in Europe.

President of Open ENLoCC Giuseppe Luppino praised the good cooperation between members and the knowledge exchange among the participating institutions. The keynote speech by Mrs. Désirée Oen, long-term member of the EU Commissioner on Transport's cabinet, pointed out that the transport corridors will follow the trend of digitization in logistics, in which the regions play a prominent role. Selfpresentations of the main European institutions dealing with freight transport and logistics under a regional perspective in "Pecha Kucha" format, i.e. 20 power point slides, each presented for just 20 seconds, resulted in a most entertaining flow of facts, as quick as precise.

Just a few impressions...





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Right, from top: Martin Brandt Secretary Open ENLoCC Presenting Open ENLoCC

Fernando Liesa ALICE Secretary General Introducing ALICE, European Technology Platform "Logistics"

Jos Marinus President of ELA Presenting European Logistics Association

Richard Tuffs Director ERRIN Presenting the ERRIN Network

Jörg Saalbach Director Interregional Alliance for the Rhine-Alpine Corridor Presenting the Alliance (EGTC)

> Holger Bach WRS Stuttgart Region Explaining the need of interregional cooperation

Left, from top: Désirée Oen arriving at the premises

Prof. Cathy Macharis MOBI / Brussels Free University Dirk t'Hoft ALICE

> Maria Rodrigues Panteia Anett Ruszanov ERRIN

Below: Members and Friends of the Open ENLoCC Network





Kouvola (Finland):

New Scandinavian rail hub for China traffic



In the past years, the rail bridge between China and Europe across Russia became an economic option – faster than sea, cheaper than air. A look at the globe shows that rail has specific advantages in the Baltic Sea area, where a short rail link competes with a long sea route. RailGate Finland of Kouvola town, at the route between Helsinki and St. Petersburg, goes for the Scandinavian hub function as a business model.



Kouvola RailGate Finland is boosting the efficiency of the Scandinavian-Mediterranean Core Corridor (ScanMed Corridor) as well as the flow of goods beyond Mediterranean, all the way to the Asian growth markets. The main bottlenecks iden-

tified within the ScanMed – Asia corridor are now solved with a signed agreement between ScanMed – Asia corridor transport actors from China, Kazakhstan, Russia and Finland in December 2016. During the first part of 2017, new test trains are to be launched in the ScanMed – Asia corridor, and soon after completed tests, a regular weekly-base train connection will start to operate.

Director Simo Päivinen from Kouvola Innovation Ltd., a member of the Open ENLoCC Network, proudly says "after intensive preparations it is now our great pleasure to introduce for the North European export industry a new route to Asia, and it is namely the shortest train route connection from European borders to Asia. This new option is positively affecting to the functionality of many other European and international corridors". Päivinen continues: "This corridor opening is also aimed to ecofriendly, clean fuel transport development, including advancing smart telematics applications for efficient infrastructure use and for better integrating many rail freight movements."

Päivinen states, "For the transport volumes of international corridors, we are creating a new type of rich customer base, which is basis for the future volume growth of multimodal transports in the corridors between North Europe and Asia.

The main event of this corridor development and follow-up, **Kouvola Rail Forum 2017** (September 28), is foreseeing a new impetus and take-up of well-functioning international transport corridors and their next key position in the processes of creating successful and efficient transport system and structures in the future world. Well cooperation between countries and continents are really needed in the up-coming years when moving towards sustainable logistics and ecofriendly international transport.

Bulgaria – Romania:

Crossing the Danube river

Romania and Bulgaria share a long border that for by far the most of its length is made up by the Danube river. The good news: Over the past decades, the number of bridges across the Danube between Romania and Bulgaria has doubled. Not so good news: As of today, the total number of bridges between the two nations now stands at two. And no other bridges are currently under construction.

Sector	Length	Number of bridges	Average distance between bridges
Upper Danube (Kelheim – Gönyű)	624 km	88	7.1 km
Middle Danube (Gönyű – Turnu Severin)	860 km	32	26.9 km
Lower Danube (Turnu Severin – Sulina)	931 km	6	155.2 km
Total navigable waterway	2,415 km	126	19.2 km

Table: Bridges across Danube river

Source: DanubeCrossing Association

The largest gap at all between bridges across the Danube is along the Romanian – Bulgarian border: Between the two existing bridges at Vidin / Calafat and Ruse / Giorgiu, the distance is more than 300 km. There are just three ferries across the border between these bridges, and a fourth one downstream of the Ruse / Giorgiu bridge, none of them offering more than just five return trips a day.

The only other way to cross from Bulgaria into Romania or vice versa is near the Black sea, where there is a land border between both countries, and two roads run south from the Romanian sea port of Constanţa into Bulgaria.

The lack of bridges along the lower Danube river probably is the largest individual lack of infrastructure within the EU. The DanubeCrossing Association (<u>www.danubecrossing.com</u>) is working to improve the situation.

Jürgen Eisele, Sofia

Author Jürgen Eisele is managing director of the Technology Center Sofia and former long-term member of the Baden-Württemberg Parliament.

EiseleJuergen@gmx.de Photo: Jürgen Eisele

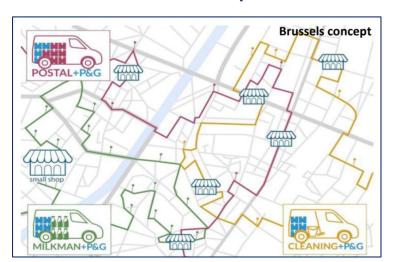


"Citylab" project entering pilot stage

The "CIVITAS CITYLAB – City Logistics in Living Laboratories" project ("Citylab" in short) implements freight initiatives in Amsterdam, Brussels, London, Oslo, Paris, Rome and Southampton under the guidance of the Norwegian Institute of Transport economics ("lead partner"). The project is co-financed by the Horizon 2020 programme of the European Union under the CIVITAS initiative. It is now reaching its "pilot" phase in the seven cities. MOBI of Brussels Free University, working on the featured Brussels pilot, is member of Open ENLoCC.

Brussels pilot project - motivation and concept

Brussels has around 400 independent small grocery stores. Data from Procter & Gamble shows that the average store is replenishing stock twice per week, often by the store owner buying goods from a wholesaler or by van delivery through a distributor. The main concept here is to introduce a new online sales channel and to use spare van capacity from existing providers to reach these stores. The goal is to replace inefficient store owner collections with more efficient deliveries having high vehicle load factors. For the Brussels Citylab, small stores will be supplied by means of vans from different service providers that have daily delivery and/or service trips but do not always use the available capacity of both their vehicles and the delivery network. The consumer goods will initially include products from Procter and Gamble Business Services. In a later phase, we may also look into including other food/non-food products that are relevant for small stores located in the city centre.



Implementation status and next steps

The work is being prepared as planned by establishing the vehicle network to be used – to date, Febelco (a distributor of pharmaceutical products), bpost and Parcify have joined the network. The plan is to trial the concept for 2-3 months with each company. By involving different companies, several set-ups can be tested, which fits into the concept of a 'living lab'. In September 2016 a set of stores in Brussels were approached to be involved. Currently a webshop is being developed where store owners can order from a dedicated range of goods with online payment. This is

More info, also on the other pilots: <u>www.citylab-projects.eu</u> Project coordinator: Jardar Andersen, TØI Norway jardar.andersen@toi.no Dissemination manager: Tom Cherrett, University of Southampton, T.J.Cherret@soton.ac.uk managed by a 3PL. Information on the orders is shared with the owners of the free vehicle capacity. The ordered products are delivered to the stores during their service trips. The goods' movements between the distribution centre of the 3PL and the owner of free capacity depend on the company; they can start at the distribution centre of the 3PL, at the location of the owner of free capacity or at a centrally located pick-up point. The trials are planned to start in March 2017.

Contact for Brussels pilot project: Sara.Verlinde@vub.ac.be



The text on this page is a slightly shortened excerpt from:

The Implications of Mega-Ships and Alliances for Competition and Total Supply Chain Efficiency: An Economic Perspective, global shippers forum, November 2016.

https://www.globalshippersforum.com/ media/gsf-report-says-radical-changesto-container-shipping-market-neednew-solutions/

The **Global Shippers' Forum (GSF)** is the global voice for shippers. The GSF represents the interests of shippers from Asia, Europe, North and South America and Africa. The GSF is focused on the impact of commercial developments in the international freight transportation industry and the policy decisions of governments and international organisations that affect shippers and receivers of freight.

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www.globalshippersforum.com Photos: Martin Brandt

Implications of the growth in mega-ships

The growth in mega-ships has consequences for the intensity and nature of competition between carriers.

Larger ships result in increased economies of scale at sea as the fixed capacity costs of a ship exceed the unit variable costs associated with transporting the ship between two ports. Larger ships are, however, associated with negative returns to scale when ships are in port (as time spent in the port, and costs associated with handling, increase with ship size). Nevertheless, overall, the economies of scale associated with ship size at sea have outweighed the diseconomies of scale associated with the ship in port. We would caution against assuming that sea economies of scale will always offset port diseconomies of scale. This is because the progressive development of mega-ships may materially increase port costs, including the costs of transporting ever greater volumes of freight to and from ports, as well as the costs and complexities of managing the loading and unloading of very large volumes of freight.

A recent presentation by Drewry highlights the far reaching impact of mega-ships on ports. If the same cargo volumes arrive at ports in fewer but larger ships, this puts strain on port infrastructure. For example, ports require longer and deeper quays, larger yards to handle peak loads, higher staffing to deal with peaks, as well as larger cranes to unload cargos. Drewry estimates that in contrast to the situation 10-15 years ago when all (100 per cent) North European port capacity was usable by the largest ships, only approximately 70 per cent of that capacity is usable today, with a large number of ports requiring upgrades to deal with larger ships. Finally, if one examines liner operating costs (which have been declining with ship size) and terminal and port costs (which have been increasing with ship size) on a combined basis, Drewry finds that combined cost savings are limited and that the move from ships with 8,000 TEU capacity to ships with 20,800 TEU capacity has resulted in combined (liner plus terminal and port) cost savings of just 4 per cent.

Higher economies of scale mean that fewer firms can operate viably in a market of a given size. The growth of mega-ships, by increasing economies of scale, and increasing the fixed costs associated with operating on a particular route, reinforce the trend in liner shipping towards fewer independent operators.

From the position of regional logistics, one may want to point out the strain on hinterland connections as well as the market power of the alliances when deciding which infrastructure to use. With Hanjin exiting the European market and Hamburg Süd being bought by world market leader Maersk, this becomes all the more important. /MB

MBURG

open ENLOCC



Adam Smith (1723 – 1790, portrait by John Kay), was a moral philosopher who became a fierce advocate of a market economy. Not because it gets the best out of people, but because it can get something good even out of the worst people's behaviour.

His elaborations on **road toll** were featured in the "European Review of Regional Logistics" 2-2015.

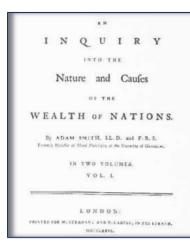
Proprietor: Owner Tenant: Person who rents a farm Retainer: Servant Artificer: Craftsman

Classic text – Adam Smith: How trade changes a society

In a country where there is no foreign commerce, nor any of the finer manufactures, a man of £10,000 a-year cannot well employ his revenue in any other way than in maintaining, perhaps, 1000 families, who are all of them necessarily at his command. In the present state of Europe, a man of £10,000 a-year can spend his whole revenue, and he generally does so, without directly maintaining twenty people, or being able to command more than ten footmen, not worth the commanding. Indirectly, perhaps, he maintains as great, or even a greater number of people, than he could have done by the ancient method of expense. For though the quantity of precious productions for which he exchanges his whole revenue be very small, the number of workmen employed in collecting and preparing it must necessarily have been very great. Its great price generally arises from the wages of their labour, and the profits of all their immediate employers. By paying that price, he indirectly pays all those wages and profits, and thus indirectly contributes to the maintenance of all the workmen and their employers. He generally contributes, however, but a very small proportion to that of each; to a very few, perhaps, not a tenth, to many not a hundredth, and to some not a thousandth, or even a ten thousandth part of their whole annual maintenance. Though he contributes, therefore, to the maintenance of them all, they are all more or less independent of him, because generally they can all be maintained without him.

When the great proprietors of land spend their rents in maintaining their tenants and retainers, each of them maintains entirely all his own tenants and all his own retainers. But when they spend them in maintaining tradesmen and artificers, they may, all of them taken together, perhaps maintain as great, or, on account of the waste which attends rustic hospitality, a greater number of people than before. Each of them, however, taken singly, contributes often but a very small share to the maintenance of any individual of this greater number. Each tradesman or artificer derives his subsistence from the employment, not of one, but of a hundred or a thousand different customers. Though in some measure obliged to them all, therefore, he is not absolutely dependent upon any one of them.

The personal expense of the great proprietors having in this manner gradually increased, it was impossible that the number of their retainers should not as gradually diminish, till they were at last dismissed altogether. The same cause gradually led them to dismiss the unnecessary part of their tenants. Farms were enlarged, and the occupiers of land, notwithstanding the complaints of depopulation, reduced to the number necessary for cultivating it, according to the imperfect state of cultivation and improvement in those times. By the removal of the farm, a greater surplus, or, what is the same thing, the price of a greater surplus, was obtained for the proprietor, which the merchants and manufacturers soon furnished him with a method of spending upon his own person, in the same manner as he had done the rest. [...]



Illustrations: Wikimedia, public domain

He is apt to run out: He is easily bound to spend it all Dissipation: wasting, squandering It does not, perhaps, relate to the present subject, but I cannot help remarking it, that very old families, such as have possessed some considerable estate from father to son for many successive generations, are very rare in commercial countries. In countries which have little commerce, on the contrary, such as Wales, or the Highlands of Scotland, they are very common. The Arabian histories seem to be all full of genealogies; and there is a history written by a Tartar Khan, which has been translated into several European languages, and which contains scarce any thing else; a proof that ancient families are very common among those nations. In countries where a rich man can spend his revenue in no other way than by maintaining as many people as it can maintain, he is apt to run out, and his benevolence, it seems, is seldom so violent as to attempt to maintain more than he can afford. But where he can spend the greatest revenue upon his own person, he frequently has no bounds to his expense, because he frequently has no bounds to his vanity, or to his affection for his own person. In commercial countries, therefore, riches, in spite of the most violent regulations of law to prevent their dissipation, very seldom remain long in the same family. Among simple nations, on the contrary, they frequently do, without any regulations of law; for among nations of shepherds, such as the Tartars and Arabs, the consumable nature of their property necessarily renders all such regulations impossible.

A revolution of the greatest importance to the public happiness, was in this manner brought about by two different orders of people, who had not the least intention to serve the public. To gratify the most childish vanity was the sole motive of the great proprietors. The merchants and artificers, much less ridiculous, acted merely from a view to their own interest, and in pursuit of their own pedlar principle of turning a penny wherever a penny was to be got. Neither of them had either knowledge or foresight of that great revolution which the folly of the one, and the industry of the other, was gradually bringing about.

It was thus, that, through the greater part of Europe, the commerce and manufactures of cities, instead of being the effect, have been the cause and occasion of the improvement and cultivation of the country.

This order, however, being contrary to the natural course of things, is necessarily both slow and uncertain.

(Excerpts from "Wealth of Nations", book III, chapter 4)

Wealth of a society as an average result of an abstract system

The increased wealth of a society, for which Smith explains the cause, is an average from which not all individuals may profit. But all individuals feel that there no longer is a benevolent lord who feeds them and can be held personally responsible. Instead, everybody feels good or bad consequences from an abstract set of rules and institutions. This can cause a problem of legitimacy in a society:

Leaders, even if elected to act with personal responsibility, within this system can only change the rules, but cannot make decisions regarding their individual subjects. What is a strength of the system – doing away with arbitrary leadership – can in return be viewed as weakness of the leader. Heads of a society can therefore be tempted to return to a system of individual decisions, trumpeting arbitrary messages of strength and personal responsibility, while fighting institutions. Thus winning applause from their subjects, they destroy the set of rules which is the very source of wealth in a developed society. /MB

Next Dates

January 2017	
	2017 IEEE: Call for Papers
	The 2017 IEEE International Conference on Service Operations and Logistics, and In- formatics (SOLI 2017) will be held on 18-20 September 2017 in Bari, Italy. Submission deadline: January 15.
	ITS Strasbourg 2017: Call for Papers The 12th ITS European Congress will take place from 19 to 22 June 2017 at the Stras- bourg Convention Centre. Under the theme "ITS Beyond Borders", the Congress will focus on the people, intelligent mobility users, as every day hundreds of thousands of them are crossing the French-German border to live their daily lives. Submission deadline: January 17.
	The 30th International Electric Vehicle Symposium & Exhibition: Call for Papers The 30th International Electric Vehicle Symposium & Exhibition (EVS30) will be held in Stuttgart (Germany), October 9 – 11, 2017 and is calling for papers. EVS30 is a high-level academic symposium, serving the electro-mobility sector. Submission deadline: January 20.
	Making Freight Consolidation Centres Work – Experiences from Southampton The CityLab project would like to invite you along to this fantastic opportunity to hear from some of the leading Transport and Logistics specialists from the South Coast of England. The day will highlight what the UK partners have been working on, including: Benefits of Consolidation, Business Trends, Electric Delivery, Case Studies of working consolidation partnerships and then followed by a guided tour around the Meachers Global Logistics Sustainable Distribution Centre facility in Nursling. University of Southampton (GB), January 27.
February 2017	
	Fruit Logistica More than 2,800 exhibitors and 70,000 visitors attend FRUIT LOGISTICA every year to realise their full business potential within the international fresh produce trade. FRUIT LOGISTICA covers every single sector of the fresh produce business and provides a complete picture of the latest innovations, products and services at every link in the international supply chain. Berlin (D), February 8-10.
	Nordhessisches Kooperationsforum

This forum for business contacts is open to a wide range of businesses, explicitly including logistics. Open ENLoCC partner MoWiN.net is co-organizer of the forum. Kassel (D), February 28.

March 2017

ALC Forum 2017

The Australian Logistics Council Forum is the largest and most influential gathering of leaders and key policy makers in the Australian logistics industry, debating and discussing the critical issues impacting the efficiency and safety of Australia's supply chains. ALC Forum 2017 will focus on the issues identified in ALC's election priorities document, Getting the Supply Chain Right.

ALC Forum 2017 will therefore identify the issues that need to be addressed in the National Freight and Supply Chain Strategy, including Industry structure, Planning, Freight on rail, Road pricing reform, Road safety, Technology as a driver of efficiency and safety.

Melbourne Cricket Ground (AUS), March 7-9.

SITL – International Week of Transport and Logistics

SITL Europe brings together all the innovative products and services dedicated to the transport of goods, freight forwarding and the logistics chain. It claims to be the most complete concentration of transport and logistics users from manufacturing, retail and distribution who are searching for new service suppliers. Expected are 24,000 professionals, 500 exhibitors and 100 conferences. Paris (F), March 14-16.

Intralogistics 2017

There is a significant change in logistics warehousing: handling robots, automated conveyors, autonomous guided vehicles, drones, connected objects, voice recognition, connected glasses and remote monitoring are part of today's intralogistics innovation. Communication within the warehouse is extensive as it enters the era of Logistics 4.0.

Paris (F), March 14-16. In conjunction with SITL.

Transport Next Generation

The mission of Transport Next Generation is to concentrate innovative transport equipment to assist manufacturers and distributors to conceive and implement plans for the transport of tomorrow.

Paris (F), March 14-16. In conjunction with SITL.

LogiMAT

The International Trade Fair for Distribution, Materials Handling and Information Flow, sets new standards as the biggest annual intralogistics exhibition in Europe. The focus will be on innovative products, solutions and systems for procurement, warehouse, production and distribution logistics.

Stuttgart (D), March 14-16.

European Battery, Hybrid and Fuel Cell Electric Vehicle Congress

Battery, Hybrid and Fuel Cell Vehicles are ready: Challenges, Opportunities and Outlook. The congress is held during the Geneva International Motor show. Geneva (CH), March 14-16.

SUMP Award Ceremony

The 5th SUMP Award by EUROPEANMOBILITYWEEK will recognise the local authority or region that has shown excellence in integrating freight in the development and / or implementation of its Sustainable Urban Mobility Plan (SUMP). The winning SUMP will therefore be of special interest to many readers, which is why the date of the non-public ceremony is published here.

Brussels (B), March 20 (on invitation only).

5th EU Electromobility Stakeholder Forum

This two-day event will bring together high level representatives from industry, research organisations, policy makers and experts to discuss the future of electromobility. The event will also provide an opportunity to hear from a number of projects around electromobility and their achievements, results and lessons learnt. Brussels (B), March 22-23.

HEUREKA 17

Tri-annual conference on mobility, traffic management and mobility financing.

Stuttgart (D), March 22-23.

4th European Conference on Sustainable Urban Mobility Plans

The European Conference on Sustainable Urban Mobility Plans will be held on behalf of the European Commission. It is the principal annual event enabling this international community of practitioners, policy makers, city staff and academics from across Europe to come together to debate key issues, highlight developments in mobility planning and exchange ideas and experience. The theme for the conference is Intelligent Planning for Sustainable Mobility.

Dubrovnik (HR), March 29-30.

April 2017

Multimodal 2017

Now in its tenth year, Multimodal is the UK and Ireland's premier freight transport, logistics and supply chain management event. It is characterised by key vertical sectors, including manufacturing, retail, agribusiness, chemical, automotive, electronics, FMCG, food & drink, fashion, pharmaceuticals, construction, aerospace, energy, real estate, recycling, paper/print and perishables, amongst others, whilst horizontally, the show covers all modes of transportation, including sea, road, rail, air and inland waterways. Multimodal 2017 will be co-located with **Internet Retail Expo** and the **e-Delivery Expo**.

Birmingham (GB), April 4-6.

TransRussia/TransLogistica

The largest exhibition of transport and logistics services and technologies in Russia. 335 companies from Russia and around the world took part in the 2016 edition. 13,214 industry professionals attended from 52 countries. Following the audit conducted by the Chamber of Commerce and Industry of the Russian Federation and the Russian Union of Exhibitions and Fairs, TransRussia has been declared the best in the line "Transport, Shipment, Warehousing, and Logistics" in all the categories: "Professional Interest", "Exhibition Area", "International Recognition" and "Market Coverage".

Moscow (RUS), April 18-22.

Current Policy Issues in Maritime and Port Safety and Security

ChemSAR, DiveSMART Baltic and HAZARD, flagship projects of the EU Strategy for the Baltic Sea Region, are arranging an event to discuss the Current Policy Issues in Maritime and Port Safety and Security.

Brussels (B), April 26

Logistics & Distribution 2017

The Logistics & Distribution is the Swiss national fair for intralogistics, distribution and e-logistics.

Zurich (CH), April 26-27.

16th Caspian International Transport, Transit and Logistics Exhibition

The TransCaspian exhibition brings together key public transport bodies and commercial organizations from the rail and commercial vehicle sectors, the maritime industry, aviation and transport and logistics services. The exhibition is an opportunity to showcase the latest developments in transportation technology, get acquainted with promising public infrastructure projects, meet with the representatives of ports and logistics centres in the Caspian and South Caucasus regions. Baku (AZ), April 26-28.

May 2017

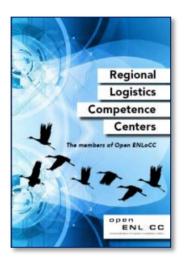
transportlogistic

transport logistic is the world's leading trade fair for logistics, mobility, IT, and supply chain management. The entire industry meets here every two years. Innovations, market leaders, and experts from around the world: Over 2,000 exhibitors from more than 60 countries will be waiting to meet you.

Munich (D), May 9-12.

Innovations in Freight Data Workshop

The Workshop will bring together freight data users and decision makers to learn and share the latest applications of emerging "big" freight data sources to improve freight planning, freight operations and mobility, or freight visualization. Presenters will include both practitioners sharing their state-of-the-art applications and researchers working at the cutting edge to develop next generation data applications and analysis tools. The event will also serve as an opportunity to identify future research needs and opportunities for collaboration. Irvine, California (USA), May 17-18.



Open ENLoCC – the network

Open ENLoCC (European Network of Logistics Competence Centers) is an open network of regional competence centers in the field of logistics, run by public authorities or similar bodies. It was established as a follow up of the "ENLoCC"project (from 2004 to 2007), then co-financed by the EU under the Interreg IIIC programme. It is self-supporting since.

The main task of the network is the international exchange of experience and knowledge between its participants and the promotion of a higher level of cooperation among European institutions.

Its members work together on common projects with the aim to develop the regional economy by solving infrastructural, organisational and technological problems of logistics and transport. The dissemination of the results from network activities and of the the best practices take place on a wide scale.

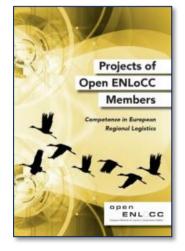
As per September 2016, the European network of regional logistics competence centers Open ENLoCC has the following members:

- CMS, Centre for Maritime Studies of Brahea Centre at the University of Turku, Finland.
- CRITT Transport et Logistique, Le Havre, France.
- CTL, Centre for Transport and Logistics of the University of Rome La Sapienza, Roma, Italy.
- Amt der Kärntner Landesregierung, Klagenfurt, Austria, for former member Entwicklungsagentur Kärnten, EAK.
- ILiM, Institute of Logistics and Warehousing, Poznan, Poland.
- ITL, Institute for Transport and Logistics Foundation, Bologna, Italy.
- KINNO, Kouvola Innovation Oy, Kouvola, Finland.
- KLOK Kooperationszentrum Logistik e.V., Kornwestheim / Stuttgart, Germany.
- LCS, Logistik-Cluster Schwaben (LCS) e.V., Augsburg, Germany.
- Logistics in Wallonia, Liege, Belgium.
- Mah, Malmö University, Department of Urban Studies/Transport Management, Malmö, Sweden.
- MOBI, Vrije Universiteit Brussel MOBI (Mobility, Logistics and Automotive Technology Research Group) Brussels, Belgium.
- MoWiN.net e.V., Kassel, Germany.
- NewRail, Newcastle University, Great Britain.
- UM, University of Maribor, Faculty of Civil Engineering Transport Economics Centre, Maribor, Slovenia.
- WRS, Wirtschaftsförderung Region Stuttgart GmbH, Stuttgart, Germany.

Contact persons:

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Martin Brandt, Secretary of Open ENLoCC and Project Manager at the logistics cooperation center KLOK in Stuttgart Region.



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