

# European Review of Regional Logistics

*Quarterly Newsletter of Open ENLoCC*



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Cover photo: “Easy Navigation” (found at Liège Airport). Martin Brandt



## Editorial

Open ENLoCC, the European Network of Regional Logistics Competence Centers, presents another issue of its “European Review of Regional Logistics”, containing information about the logistics trends and initiatives around Europe, with specific hindsight to their consequences for the regions of Europe. The “Review” is a keen follower of European projects and policies in the sector, and debates their results from a regional standpoint. In this issue, we present a wide range of topics that have an impact on logistics in the regions of Europe.

Of our members, the current “Review” features the ILiM Institute of Logistics and Warehousing in Poznań, Poland. Furthermore, the Emilia-Romagna Region, home of our member ITL in Bologna, is portrayed with regards to its role in logistics. ITL will also host the upcoming yearly General Assembly of Open ENLoCC, to be held in Bologna on April 14/15.

Furthermore, we inform the reader about SPECTRUM, an approach to solve the rail freight conflicts with rail passenger transport. We also invite the reader to have a look at the assumptions under which the European Parliament thinks ahead for freight transport, as compiled by its own scientific service. Monitraf, a regional initiative of public bodies across the Alps, monitors the traffic flows in that ecologically sensitive area. And we use the occasion of cooperation during the Open ENLoCC General Assembly to present the work of the NOVELOG project on city logistics.

Again, this issue also features a classic logistics text. This time, the author is Herman Melville, famous for his master novel “Moby Dick”. The text reprinted here deals with warehousing under extreme conditions.

But some very important news remains to be told: After more than a decade of cooperation with Alberto Preti, of which he was overseeing the activities of Open ENLoCC as President for seven years, it is now time to say good-bye. Alberto has left our partner ITL, where Giuseppe Luppino took over the role as President of Open ENLoCC.

The transformation of Open ENLoCC from the initial EU project “ENLoCC” into a self-supporting network, with member services and its own standing, is hardly imaginable without Alberto’s strategic view and communication skills. Our new President Giuseppe Luppino worked with him during the past years. Giuseppe already won a high reputation among Open ENLoCC members, during international project work, and we all look forward to continue with our cooperation.

**Martin Brandt**

*Secretary “Open ENLoCC”*

March 2016

## People



Giuseppe Luppino, new President of the Open ENLoCC network.

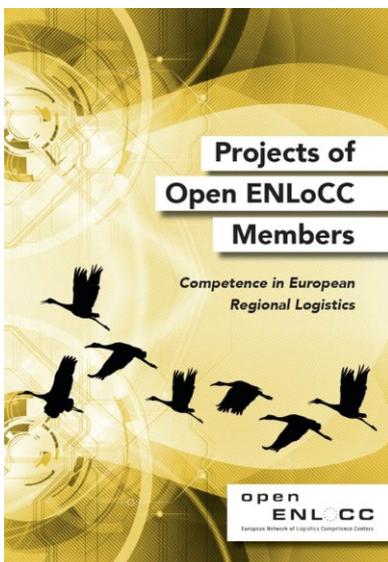
New President of Open ENLoCC, by its member ITL in Bologna, is Giuseppe Luppino. Giuseppe has a Degree in Economics at Bologna University and a MBA at Alma Graduate School of Information Technology, Management, and Communication in Bologna. He is Project Manager at ITL since 2006 with focus on research projects in the fields of optimisation of freight transport and logistics, Urban Freight distribution, electric and sustainable transport, air transport and TEN-T Networks.

Alberto Preti, President of Open ENLoCC from 2009, has left ITL. Since March 14, he is Associate at Steer Davies Gleave, based in Bologna. At Steer Davies Gleave, Alberto will lead the coordination of a team set to provide technical assistance and consultancy services to public and private organizations benefiting from EU funds targeted at the transport sector in Italy and across different EU Member States.

## News

### The Open ENLoCC members present their projects

In a new brochure (72 pages), the Open ENLoCC members present their knowledge and project experience. The reader is invited to check the member contributions for any needed competence in the field of regional logistics, and to contact each member individually as it seems fit. The brochure is available upon request via the Open ENLoCC members.



### Consultation on ERDF and Cohesion Fund 2007-2013 ex-post evaluation

Many readers took part in projects co-funded under these funds. The ex-post evaluation by the EU commission is now open and surprisingly simple. Just tick answers to a few questions. There is but one text field: "Can you give an example of an area where the administrative burden of managing the ERDF and CF could have been reduced and made simpler?" If you can, please do! The consultation is open until April 27. See [http://ec.europa.eu/regional\\_policy/en/newsroom/consultations/erdf-cohesion-fund-2007-2013-ex-post-evaluation/](http://ec.europa.eu/regional_policy/en/newsroom/consultations/erdf-cohesion-fund-2007-2013-ex-post-evaluation/).

### Daimler exports via Koper

In the "Review" 2/2015, it was mentioned that Daimler intends to ship cars to the Far East via a Mediterranean port. By now it has become clear that the port is Koper, and first shipments from various plants in Germany and Hungary have been under way.

While Daimler does not give figures about the expected traffic volume, signs indicate rather high targets: First, Daimler ships more than 300,000 cars per year to China alone, and second, the contract is with an auto carrier that so far does regularly stop at Koper, making the new service more than an add-on to existing services. However, whether the huge export potential will be fully exploited will also depend on symmetric import flows to utilize the auto carrier and hinterland capacities.

University of Maribor is inviting researchers and practitioners to further develop and test the system on modelling and practical implementation level. The idea is to find several cities interested to test the system, develop an app and realize the idea in the form of a research project.

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<http://www.fg.uni-mb.si/tec/>

### **Project proposal: Dynamic Management of Urban Deliveries by means of Mobile Devices**

Information and communication technologies (ICT) are presently changing the way of thinking in many business practices. The University of Maribor is developing a new model for dynamic management of urban freight deliveries. Smart phones are used for controlling and managing entrance to the city centre, reservation/booking of loading and unloading locations (LUPs) and dynamic navigation/routing of vehicles within the city centres. Tracing of deliveries based on the GPS build-in functionality of smart phones can serve for data collection, recognition of stakeholders' behaviour, identifying time, location and duration of each individual delivery/transshipment operation, bottlenecks and other delivery problems. The system can also be used for simulation in order to assess proposed city logistics measures.

The model foresees and identifies several clusters of customers (retailers) located within the city centre. Clusters are formed based on proximity of customers and location of existing LUPs. Deliveries can be performed on foot, by (electric) trolley or freight bike in case of more remote destination points.

Architecture and functionality of the innovative information system have been developed. The first step is to choose (from a predefined list or from an interactive map) customer(s) to be visited. Based on the current position of the delivery vehicle and quantity of parcels to be delivered, the system predicts expected time of arrival, assigns and reserves the most optimal LUP and calculates the time required for delivery operation. The system then controls the duration of vehicle's stop in the LUP (warning in case of violation) and finally navigates the vehicle out of the city centre.

Dynamic last-mile delivery approach has been modelled and tested in the case of Lucca city centre (Italy). Our algorithm considers capacities and real time availability of LUPs (limits the number of vehicles allowed to enter the city centre), the dynamic routing to the LUP and the distance (or time) from the chosen LUP to the customer. Based on that, congestion in the city centre can be avoided with considerable average savings amounting up to 53% of vehicle travel times and up to 35% of distances travelled.

### **Launch of the NISTO Evaluation Toolkit for Mobility Planning**

Open ENLoCC member MOBI, in cooperation with six partners from North-West Europe, developed an evaluation toolkit for small-scale mobility projects in the NISTO (New Integrated Smart Transport Options) project co-funded by the European Union's Interreg IVB NWE programme. The toolkit is now available free of charge at [www.nistotoolkit.eu](http://www.nistotoolkit.eu).

The NISTO Toolkit offers practitioners an easy-to-use way to evaluate the sustainability and stakeholder support of options to solve mobility-related problems using multi-criteria analysis and multi-actor multi-criteria analysis.

### KINNO collaborating with IBM on Blockchain Services

New blockchain services from IBM help developers create and manage blockchain networks to power a new class of distributed ledger applications. Developers can create digital assets and accompanying business logic to more securely and privately transfer assets among members of a permissioned blockchain test network.

IBM is working with a number of global partners including London Stock Exchange Group and the Finnish business development organization Kouvola Innovation (KINNO), an Open ENLoCC member. “Blockchain provides a revolutionary approach that enables businesses across industries all around the world to completely change their logistics business and operations,” said Mika Lammi, head of IoT business development at KINNO. “We’re excited about the potential for blockchain to transform logistics value chains into a more seamless process that provides a trusted view of every piece of cargo.”

KINNO works on a project proposal to test the technology in four scenarios: Optimizing the container routes and transport modes, optimizing the loading/unloading service processes, optimizing personnel service, utilizing the smart packaging solutions, including optimization of the retail routing of the product packages.

A **blockchain** is a permissionless distributed database based on the bitcoin protocol that maintains a continuously growing list of data records hardened against tampering and revision, even by its operators. A **ledger** is the principal book or computer file for recording and totaling economic transactions. (*Wikipedia*)

### North Hessian Collaboration Forum

Over the last years the Regionalmanagement Nordhessen in cooperation with MoWiN.net has established an innovation event, called North Hessian Collaboration Forum. The idea behind it is quite simple: speed-dating for companies. Company representatives, who registered online and selected potential conversation partners on the MoWiN.net webpage, meet in up to seven 20-minute discussion rounds. Initially, this concept was invented by MoWiN.net to connect the regional mobility sector. Due to the success, the field of participants is not limited anymore to any special sector, resulting in very interesting pairings, causing unexpected ideas and multi-sectoral collaborations.

The 2nd North Hessian Collaboration Forum was held on February 11th 2016. 130 regional and national companies and networks participated in the discussion rounds, resulting in 420 talks. All in all 200 attendees were involved. The event was – as every year – rounded up by a keynote speaker: Stefan Hentschel, Industry Leader Technology at Google Germany, talked about digitalization as a challenge for German industry.

Find out more: [www.kooperationsforum.eu](http://www.kooperationsforum.eu). MoWiN considers to expand its North Hessian collaboration forum to include international partners as well. So if you are interested in match-making with companies and organizations from Northern Hesse, please get in touch with Dr. Astrid Szogs: Szogs@regionnordhessen.de or +49 561 97062-19.

### **Freight transport and logistics in Brussels: present and future trends**

Open ENLoCC member MOBI's Philippe Lebeau and Cathy Macharis, together with researchers of the ULB and the Centre d'études sociologiques (CES) of the Saint-Louis University (USL-B) were asked by BrusselsMobility to make a summary of the data on freight transport and logistics in Brussels.

The work of MOBI and the other researchers resulted in the publication of Quires of the knowledge centre of Brussels Mobility. The fourth quire, 'Freight transport and logistics in Brussels. Present and future trends' covers the following topics:

- Definition of logistics and freight transport in Brussels,
- Challenges in the field of logistics and freight transport in Brussels,
- Diagnosis of freight transport in Brussels,
- Demand for freight transport in the Brussels economy.

The Brussels Mobility knowledge centre has three main objectives. The first is assembling data and knowledge from a variety of reports and databases of various stakeholders, second is relating, analysing and monitoring these data and third is making these data accessible to an audience of specialists and interested parties. The quires are framed in this set of objectives.

This quire on freight is available for download in French and Dutch.

**Bruxelles Mobilité** is the administration of the Brussels-Capital Region responsible for equipment, infrastructure and mobility issues. The primary challenge is to facilitate economic development – and the growing need for mobility solutions – while improving quality of life and sustainable development.

Bruxelles Mobilité oversees the definition of mobility strategies, projects to develop, renew and maintain public spaces and roads, as well as public transport infrastructure and taxis of the Region.

Source: [http://be.brussels/about-the-region/ministry-of-the-brussels-capital-region/brussels-mobility?set\\_language=en](http://be.brussels/about-the-region/ministry-of-the-brussels-capital-region/brussels-mobility?set_language=en)

## **Debate**

### **Open ENLoCC at EU Commission in Brussels**

On Monday, February 22, Open ENLoCC President Alberto Preti and Secretary Martin Brandt met with Desirée Oen, Vice-Head of Cabinet of EU Commissioner for Transport, Violeta Bulc, at her office in Brussels. Mrs. Oen is responsible for the topics dealing with logistics and as a reader of the "European Review of Regional Logistics" had suggested the meeting.

Alberto and Martin used the occasion to introduce the Open ENLoCC network to Mrs. Oen and to debate those work topics of Open ENLoCC members which may be relevant to the agenda of the commission. In general the meeting served to show the variety and richness of the members competences which can be put at the disposal of the EC in the means and time the EC deems appropriate.

## Open ENLoCC member ILiM

- **What is ILiM?**

Open ENLoCC member ILiM, the Institute of Logistics and Warehousing, is located in the Polish City of Poznań. It is a state owned R&D unit, and Poland's first centre of competence in logistics, e-business and standardization. We are an interdisciplinary unit with more than 150 employees, where logistics, e-business and standardization are perceived as both a subject of research as well as the field of practical application.

Consequently, activities carried out in the Institute embrace both organisation and technology. The Institute is the leading Polish supplier of up-to-date solutions supporting management of both materials and information flows. We have a substantial national and international network of partners and contacts both in industry and academia. We cooperate on logistics matters with the Polish Ministries of Economy, Finance, Health, Interior and Administration, Justice, Regional Development, Science and Higher Education, and Transport.

- **ILiM Areas of Competence**

The Institute's areas of competence embrace logistics and supply chain management including logistics processes, transport system designing and optimization, intermodal transport systems, optimization of distribution networks, etc. We are specialists in such areas as:

- intermodal transport systems,
- co-modality,
- logistic processes,
- logistic costs analysis,
- transport systems designing and optimization,
- ITS,
- supply chain management,
- tracking and tracing systems,

as well as many others.

Our experience includes successful participation in projects co-funded by many programs of the European Union. Apart from coordinating the projects POLLOCO (FP5), CENTRAL LOCO (FP6), KOMODA (FP7), B2B LOCO (FP7) and LOGICON (FP7), the Institute has also cooperated in many other projects. Examples under the 7th Framework Programme include COMCIS, iCargo, WINN and MODULUSHCA. Furthermore, we worked for a number of Interreg IIIB and IIIC projects, such as SUGAR, CASTLE, KASSETTS, POLITE, ACL, CORELOG and TRANSBALTIC. ILiM also won the EC tenders FIAP, COMPETE and DiSCwise.

- **ILiM for e-business**

ILiM provides solutions within e-business, IT and data communication, covering warehouse management system, implementation of EPC/RFID solutions and GS1 standards and solutions. The ICT research activity conducted by ILiM is focused on the application of modern AIDC technologies (EPC [Electronic Product Code] / RFID [Radio Frequency Identification]) in logistics and trade between businesses, active participation in development of standards for EPC Global based supply chain solutions and last but not least design and development of complex



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IT platforms (e.g. Electronic Logistic Platform, National Electronic Contact Point for SMEs - one of 27 Contact Points implemented in the EU according to Service Directive).

At present, ILiM research interests are driven by the social and technological change in consumer-brand relationship (e.g. introduction of NFC payment scheme).

- **ILiM for GS1**

We are a national organization of GS1 – providers of an integrated system of global standards for accurate identification and communication of information regarding products, assets, services and locations. GS1 is a leading global organisation dedicated to the design and implementation of global standards and solutions to improve the efficiency and visibility of supply and demand chains globally and across sectors. The GS1 system of standards is the most widely used supply chain standards system in the world. GS1 is a fully integrated global organisation with over 30 years experience in global standards and offers a range of products, services and solutions to fundamentally improve efficiency and visibility of supply and demand chains. GS1 operates in multiple sectors and industries

- **Tra 2016**

“Transport Research Arena 2016” – the most important transport research event in Europe, gathering every 2 years researchers, experts, operators, industry and policy-makers will take place in Warsaw, from 18th to 21st April 2016.

TRA 2016 seeks to reflect the multidisciplinary nature of the transport sector and, for this reason, addresses all stakeholders in both the public and private sectors and all professionals, regardless of their roles. The Institute of Logistics and Warehousing is one of the representatives of the ALICE technology platform in the organization committee of TRA 2016.

- **LOGISTICS 2016**

On 18-20 May 2016, Poznań will once again become a venue for meetings of logisticians from all over Poland. The 13th edition of the Polish Logistics Congress LOGISTICS 2016 will also gain a European dimension, as it will be organised jointly with the European Logistics Congress EUROLOG 2016. For the second time, the European Logistics Association expressed its appreciation for the high level and broad range of the congresses.

ILiM premises in downtown Poznań

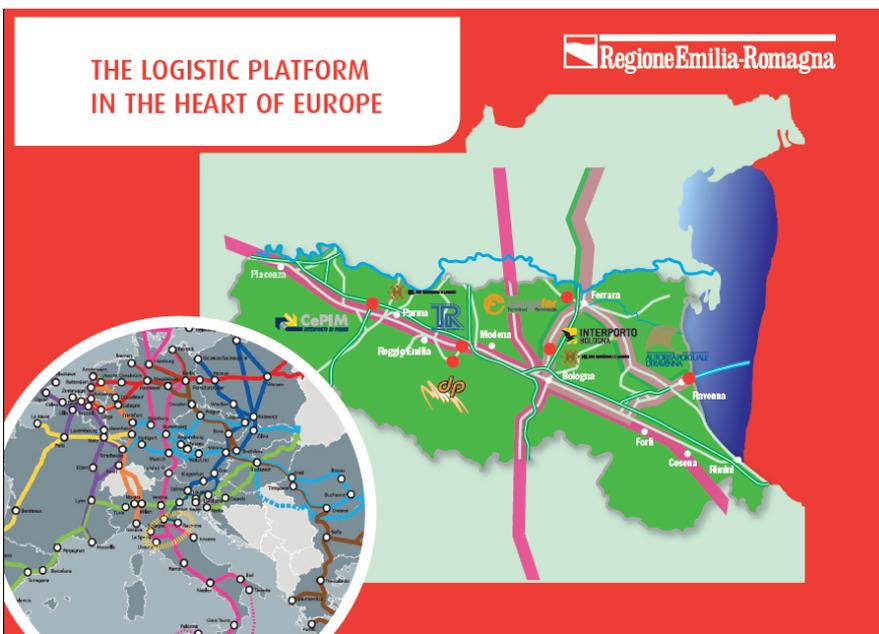




## The Emilia-Romagna Logistics Region

Located in one of the most productive areas of Europe, the territory of Emilia-Romagna region represents a focal platform and gateway for freight traffics. Thanks to an efficient transport network of rails, roads and an integrated intermodal hubs system, Emilia-Romagna region is connected to the national level with the main seaports of Adriatic and Tyrrhenian Seas, while at international level it is connected with Europe and Mediterranean areas through important axes of the TEN-T Network. In particular the region is crossed by three different TEN-T corridors:

- The Baltic-Adriatic Corridor,
- The Scandinavian-Mediterranean Corridor,
- The Mediterranean Corridor.



In this context, the Bologna Freight Village and the Seaport of Ravenna are included among the core nodes of the European Network.

With a population of about 4.5 million, 375,000 enterprises and a GDP of € 32,500 per capita, Emilia-Romagna counts as one of the important economic regions of Europe. Thanks to the productive excellences from the manufacturing and the advanced industrial sectors, Emilia-Romagna is at the top of European rank for GDP and employment rate.

The main industries are the automotive sector, mechanical, ceramic and chemical industry, but also fresh and food products (raw and processed), and biomedical technology. As a result, the economy is strictly based upon import and export.

Emilia-Romagna and specifically its capital Bologna is perhaps the main Italian transport hub. It is in the center of several motorways, and the new high speed rail line Torino – Milano – Bologna – Firenze – Roma – Napoli runs right across. Besides the national rail network (RFI), the region runs about 350 km of railways under its own authority (FER). Due to the industrial base, these lines play an important role not only in passenger transport, but also in the rail freight business. The number of intermodal freight trains adds up to 45,000 per year.



Besides the seaport of Ravenna, known for its bulk traffic, there also is a connection to the Po river inland waterway system via the “idrovia ferrarese.” Bologna (BLQ) is an international airport with connections across Europe.

Within the region, there are seven logistic/intermodal platforms: Piacenza, Interporto Cepim Parma, Dinazzano, Interporto Bologna, Villa Selva, Ravenna, Lugo and, under construction, the node of Marzaglia.



Bologna Interporto

Photos: RER (3), Luppino (bottom)

The logistics and freight transport within Emilia Romagna Region, when viewed from a political and administrative point of view, is divided in four main areas of intervention:

- Rail freight transport and logistics,
- Road freight transport,
- Urban freight distribution,
- Port of Ravenna.

The Region has general functions in the fields of planning of transport infrastructures, programming and addressing the development of the regional transport system, and promotion and participation in EU projects on transport and logistics.

More in detail, in rail freight and logistics, the Region develops the infrastructure network in relation to the nodes in order to improve intermodality and last mile connections. The support is also given through economic incentives to the transport companies, such as the Regional Law n. 10 of 2014, which in the period 2010-2012 funded 35 projects with 3 Millions €. The rail network includes about 1,400 km of railways and 10 nodes (9 on the RFI national network and 1 on FER network, the Emilia-Romagna regional railway which counts about 350km).

In 2012 the Emilia-Romagna road freight transport counts more than 246 million tons, with a rate of growth of 2.5% per year and an increasing number of trucks registered. In this field the role of the Region is to coordinate and address actions of local authorities.



The Region is one of the few regional administrations active in urban freight distribution. It promotes and supports initiatives and interventions, both from infrastructure and technology side, involving local authorities and pushing for the harmonization of city logistics rules in the Emilia-Romagna main cities. In the past, through the Regional Law 30/98, the Region funded specific interventions for distribution of goods in cities, achieving also specific Programme Agreements which are regularly updated each year in order to reduce the pollution caused by transport of goods in the cities. Some pilots and activities have been funded thanks to the participation of the Region or the Institute for Transport and Logistics (ITL) to European projects like as SUGAR, SMILE, C-Liege and NOVELOG.

Contact:

Institute for Transport and Logistics  
(ITL), Giuseppe Luppino

The Seaport of Ravenna is the main port of the region and one of the gateways of the Adriatic sea to the hinterland. Linked to the TEN-T through the rail corridor n.1, the Baltic-Adriatic Corridor, it is one of the 83 European core ports. By law the port activities are up to the Ravenna Port Authority. The Region plays the important role to improve the connections of the port to the hinterland (nodes and railways).





SPECTRUM project team  
Illustrations: NewRail

## SPECTRUM – towards competitive rail freight operation

The SPECTRUM rail freight project met all of its objectives and has already achieved initial market uptake. What made this EC FP7 project so special?

SPECTRUM developed rail logistics services and technology to capture market share from mono-modal, road-based logistics operations, specifically targeting the time-sensitive, low-density high value (LDHV) goods market.

From inception, it was market driven, clearly identifying the needs of the customer and addressing them appropriately - adopting a 'first principles' approach. This was reflected in the make-up of the project consortium, which brought together 22 partners from 10 countries, spanning a broad range of expertise from universities and research organisations, consultants, infrastructure managers, logistics companies, wagon and system builders, and associations, e.g. UIC.

### Market potential

The following were identified as time sensitive, LDHV goods:

- Goods with a gross-weight density of 230 kg/m<sup>3</sup> or lower, (except live animals, transport equipment, electrical machinery, explosives)
- Goods with a density between 230 and 300 kg/m<sup>3</sup> and with a trade value of €0.50 per kg or higher
- Perishable goods (even if the density exceeds 300 kg/m<sup>3</sup> and the value is below €0.50/kg), e.g. dairy products, fresh and frozen fruit, vegetables and meat.

In summary: non-bulky, small unit, finished or almost finished products – consumables, parcels and time-critical, palletised cargo.

The first steps in SPECTRUM were to robustly define the market, rather than adopting the generally accepted beliefs about logistics demand. Using a variety of tools, including transport demand analysis, market intelligence, interviews and four industrial case studies, the project identified a 1.9 billion tonnes potential – 12% of freight flows – that is currently almost exclusively satisfied by road transport but could be transported by rail.

### What are LDHV goods customers looking for?

Modern manufacturing techniques and logistics require increasingly reliable, time-sensitive deliveries and ever-worsening road congestion and the focus on decarbonising transport present a clear market opportunity. Depending on the market segment, LDHV customers may require faster transport times, specialised handling systems, tracking and tracing services and – often – a temperature controlled environment for their goods (e.g. flowers; fresh food). Could rail freight rise to the challenge of providing them with a reliable, available and cost-effective service?

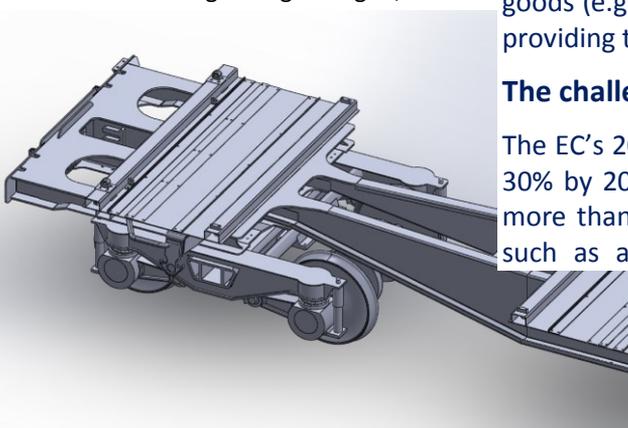
### The challenge

The EC's 2011 White Paper seeks a modal shift to rail (or waterborne) of 30% by 2030 – and 50% by 2050 - for current road freight transported more than 300km. Historically, rail freight has handled bulk shipments, such as aggregates and coal, with few time or service constraints.



New bogies, ...

... a new lightweight wagon, ...





...new power systems for reefers, ...

SPECTRUM's market analysis showed LDHV customers to have a very different set of requirements. Aligning these against the constraints of current railway infrastructure and logistics helped identify the current barriers to transporting LDHV goods by rail. These included:

- current capacity management working practices - the way infrastructure managers design timetables and operate trains
- current vehicle, running gear, propulsion and electrical systems
- lack of condition monitoring and track and trace capability
- access to terminals, particularly in and around urban areas
- meeting reliability, safety, flexibility and cost requirements

### The SPECTRUM solution

The SPECTRUM project designed a higher speed freight train that performs similarly to a passenger train - offering faster, more reliable and more flexible rail freight services that compete successfully with road, without competing with existing rail operations that focus on a different market.

...and transshipment options.



It developed and demonstrated **new power systems for reefers** (a contract has already been signed to supply these static power converters to Singapore's SMRT transport authority), **new bogies, a new lightweight wagon, and transshipment options** that include city logistics – in fact, a whole new model of rail freight business operations, that allows full scheduling on inter-urban and suburban train networks and can operate intensively over a wide range of national domestic and international lines and routes, without constraint.

Of course, a new, modern and high performing train itself does not make a business case. Capacity management, network routing, terminal handling and last mile shipments of LDHV goods must be managed, in a service offering that provides the customer added value and on terms that are commercially viable for the forwarder.

FOR MUCH MORE INFORMATION  
PLEASE CONTACT

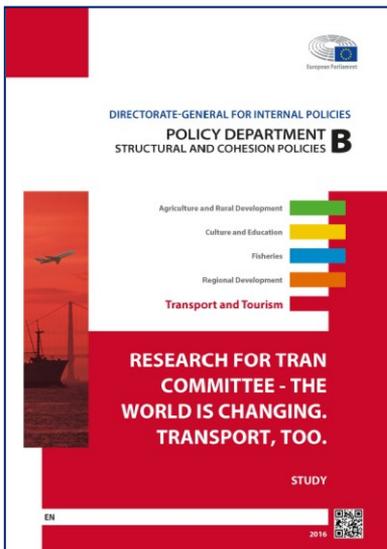
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The SPECTRUM rail freight concept is able to run within different business options, including train services connected with urban rail networks, possibly with urban consolidation centres/logistics parks, and austere terminals deep within urban areas but designed to allow rail to deliver/collect within very short range of the shipper/receiver.

The potential impact of the SPECTRUM rail service depends on how well the rail freight sector will exploit the potential. What it had to do, was deal with the characteristics of the markets, because the service must meet the logistics requirements of the shippers involved. For this reason, the SPECTRUM project focused clearly on the logistics aspects of the service.

A full commercial evaluation, with detailed cost benefit analysis and life cycle costing, shows SPECTRUM can add value compared to road, for short, medium and long haul; it is expected to increase the competitiveness of rail freight transport, mainly via increased handling performance that decreases door-to-door transport time, for time-sensitive LDHV goods. If just 10% of this traffic shifts, over a 10-year period, the SPECTRUM Service could save €2.9 billion of external cost and 20 million tonnes of carbon emissions, achieving modal shift from road to rail, in previously unexploited markets.



Study of the European Parliament's Policy Department B: Structural and Cohesion Policies, requested by the European Parliament's Committee on Transport and Tourism.

#### Chapter 8: FREIGHT (verbatim)

### “Changes in transport: FREIGHT”

Historically a close correlation between freight transport and economic activity has been promulgated (OECD/ITF, 2015). Yet, this relationship is not clear cut (McKinnon, 2007). Whereas under current trends and adopted policies, the European Commission (EC, 2013b) assumes a strong relationship between freight travel and GDP and thus significant growth in freight transport, in particular from 2010 to 2030, scenarios developed by OECD/ITF (2015) question the relationship between GDP and freight transport. Much of the change seems to relate to changing stockholding and supply chains. “Three-quarters of total freight transport (tonne-kilometres) in the EU-28 is associated with distances greater than 300 km... with sea freight the dominant mode for long distance freight movement (53%), followed by road (37%) and rail (10%)” (EEA, 2014, p. 8). For developed regions like the EU, growth in freight movement is more due to more units of freight “being transported over greater distances than to the physical mass of goods in the economy expanding” (McKinnon, 2010, p. 2).

Globalisation will remain a driving force underpinning growth in freight transport volume. Roll out of several technological innovations likely to impact urban freight is underway (Oehry et al, 2013). Yet, how new technology will impact and shape growth in freight will differ across Europe in different ways. Pricing has the potential to reduce travel demand for freight. Heavy goods vehicle (HGV) kilometres are quite sensitive to charges. As such, evidence suggests reduction in vehicle-km stems largely from efficiencies made in road transport operation and optimised chains of distribution, with roughly one-third being attributed to modal shift (Transport and the Environment, 2010). Though hybrids and electrical vehicles are likely to contribute to a more efficient freight transport, such efficiencies can be offset by fuel and labour costs (Arvidsson, Woxenius, and Lamngård, 2013), and thus their impact on demand is not likely to be strong. As road freight will continue to be the dominant mode of freight transport over the next decade, future demand will remain largely contained to the road. This in turn suggests that future demand will require either new road construction, re-allocation of road space or much more effective management of road space to assist in efficient movement. Though promoting efficient modes is an important policy goal, similar to hybrids and electrical vehicles, making freight modes more efficient does not directly address the need to reduce demand for freight transport. As intermodality will likely increase demand for freight transport, improvements in this area will impact freight and logistics in a variety of ways. For example, recent evidence suggests that intermodal freight systems do not always emit less CO<sub>2</sub> than truck-only systems (Kim and Van Wee, 2014). Development in intelligent transport systems such as geolocation has helped companies contain travel costs (Pilla et al., 2013). Thus, greater uptake of ICTs and ITS technology help make freight travel more efficient. Yet, depending on business models, such efficiencies can both reduce freight travel, as well as generate more demand for freight as businesses potentially pass cost savings to their clients via reduced freight prices. There are a variety of reasons as to why urban freight collection and



City: "Now the primary settlement form." Photo: Brandt

delivery will rise up the policy agenda and become more acute over the next decade with two factors being prominent.

First, the city is now regarded as the primary settlement form, accommodating half the world's population, a trend expected to continue (Vallance and Perkins, 2010). Second, continued uptake of e-commerce, including home and office delivery of clothes, books, electronics and groceries, will generate additional delivery trips (EC, 2012). In contrast, continued improvements in the reverse logistics area have the potential to reduce the overall need for freight vehicle movement. Though a market for more localised production and consumption continues to grow, implementing stand-alone policies such as time and load restrictions can, paradoxically, negatively impact vehicle numbers and distance travelled (Arvidsson, 2013). Further, scholars cite a 'green logistics paradox', where environmental costs become externalised. For example, shifting towards smaller trucks to offset dominant use of lorries (least environmentally friendly mode), results in further contributing to congestion and space consumption (Rodrigue, Slack and Comtois, 2001).

Amongst these, e-commerce has particularly notable potential to generate additional as well as changed demand for freight transport (see Section 4). The Green Paper on the parcel market and e-commerce (EC, 2012) argues e-commerce must be accessible to all citizens and businesses, irrespective of size and location, and emphasises cross-border delivery of parcels and need of SMEs and less-advanced and accessible regions. E-commerce has the potential to significantly increase use of light van and other smaller delivery vehicles over the next decade. From 1994 to 2012, the number of light commercial vehicles (LCV) registered in the UK, for example, increased by 29% (3.28 million), compared with heavy goods vehicles which decreased by 5% (460,600) (Clark et al, 2014). In the UK, use of such smaller freight delivery vehicles is predicted to almost double between 2010 and 2040, and is now the fastest growing mode of all vehicle groups. There are some difficulties in identifying comparable trends across Europe as some countries include buses and coaches within the LCV/HGV classification (Nicodème et al., 2013, p. 39). Casullo and Kohli (2012) found that registration of LCV/LGV grew faster than HGV registration in France and the Netherlands between 2005 and 2010. LCV activity is predicted to almost double between 2010 and 2040, and is now the fastest growing mode of all vehicle groups within the EU-28 (EC, 2015, p. 90). Currently, over 32.2 million LCVs are registered in the EU, representing 12% of the total vehicle stock (Clark et al, 2014). Yet, in addition to the rise of e-commerce, growth in ownership and use of LCVs can be attributed to a multitude of factors such as 'just-intime' deliveries and restrictions on HGVs in urban areas (Clark et al, 2014; EC, 2009b).

### **"Research for TRAN Committee – The World is Changing. Transport, too."**

This study is written for the members of parliament, as a source for their information. Thus, it shows the underlying thinking within the political debate. While the quoted passage is about the new trends in freight transport, the 100-page study also includes paragraphs about urban logistics, and about technologies that relate to freight. The original document also contains the full references given above in short.



The main text is an excerpt from the Annual report of MONITRAF, a cooperation of regions throughout the Alps to monitor transalpine transport.

## iMONITRAF! network – 10 years of successful cooperation

For the last ten years, the Alpine regions Rhône-Alpes, the autonomous Provinces of Bolzano and Trento, the autonomous Regions of Aosta Valley and Friuli-Venezia Giulia, the Region Piemonte, the Canton of Ticino, the Region Central Switzerland, the Land of Tyrol as well as the Accademia Europea di Bolzano (EURAC) have established a **successful cooperation on transalpine transport topics**. As all Alpine regions face considerable negative environmental and social impacts from transalpine transport, they have launched the Alpine Space project MONITRAF in 2005 to develop a common knowledge base on transalpine transport with the help of a monitoring system as well as common measures. Regular meetings, public workshops and international conferences served for the communication with regional, national and EU bodies involved with the issue. During eight years, MONITRAF had established itself as important institution on transalpine transport knowledge and enjoys high support on political level.

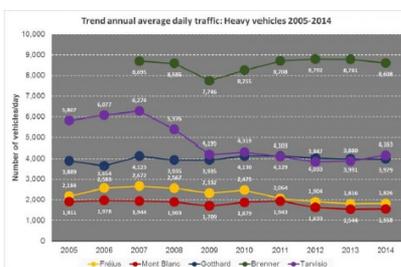
Since 2013, the iMONITRAF! network entered an independent phase with the establishment of a Coordination Point financed by the regions. The Coordination Point continues the activities of the previous projects and has the objective to implement first elements of the transport strategy of the Alpine regions as signed in May 2012 in Lyon. Specifically, the Coordination Point focuses on three activities:

- i) continue the common monitoring system,
- ii) move forward on the implementation of common measures and continue the exchange on regional best practice, and
- iii) networking and coordination with other bodies and institutions on regional, national and European level.

### Objectives for 2015 – Moving forward on Toll Plus and securing the knowledge base

Starting with the Transport Forum in 2014, iMONITRAF! has focused strongly on developing a regional proposal for a Toll Plus system. The implementation of a common modal shift policy, supported by an ambitious pricing approach is part of the iMONITRAF! strategy of 2012 and can be considered as bridge between rather short-term regulatory measures and the long-term perspective of an Alpine Crossing Exchange. With parallel activities in the Suivi de Zurich process and especially with the ongoing revision process of the Eurovignette Directive, there is an adequate window of opportunity for iMONITRAF! to further develop an ambitious pricing system for the Alpine corridors. iMONITRAF! partners have now prepared an in-depth analysis on Toll Plus with specific proposals for an optimised scenario.

2015 was also a crucial year for securing the future of iMONITRAF!. As the framework of the macroregional strategy EUSALP is still not fully developed, political representatives of most of the iMONITRAF! regions have stated a preference on continuing iMONITRAF! as an independent institution. Details need to be discussed in the upcoming months. However, the regions along the Brenner corridor have already stated their willingness to continue the cooperation for at least two more years.



Example of monitoring activity: Number of heavy vehicles crossing the passes of the Alps. Annual Report 2015, p. 18.



## NOVELOG for City Logistics

NOVELOG stands for New COoperatiVe business modELs and guidance for sustainable city LOGistics is an approved “Horizon 2020” project. Led by the Centre for Research and Technology Hellas / Hellenic Institute of Transport (CERTH-HIT), NOVELOG counts 28 European partners and a large number of associated institutions around the world. It started in June 2015 and will end in May 2018

The key concept of the project is to initiate and enable city logistics policy formulation and decision-making as part of a city’s sustainable urban mobility planning, supporting the implementation and take up of appropriate policies and measures. So far, lack of coordination between urban logistics stakeholders and lack of a common strategy among local authorities result in a failure to integrate urban freight into urban policies. NOVELOG introduces a new approach supporting a more sustainable urban environment. Four tools will be developed within the project:

- Understanding city tool: To understand, assess and capture current needs and trends on UFT, revealing the reasons of the failures in city logistics implementations and to identify the key influencing factors of city logistics and develop future Sustainable Urban logistics Scenarios.
- Toolkit: to enable the determination of optimum policies and measures, based on the city typologies and objectives.
- Evaluation framework: to portray the complexity of the life cycle of UFT systems in terms of divergent stakeholders’ interests, conflicting business models and implement it to assess the effectiveness of the policies and measures on specific city contexts.
- Guidance: Incorporating the best fitting policies and measures in integrated urban planning and Sustainable Urban Mobility Plans (SUMP).

Consensus is the keyword: NOVELOG provides guidance provision to policy makers, based on sustainable business and logistics models, and the facilitation of cooperative schemes and consensus among stakeholders.

Measures will be tested in NOVELOG cities through the implementation of 6 pilots and 6 case studies, covering several aspects: from the cooperation between road and rail transport providers for last mile deliveries in Athens to the City Logistics Regional Harmonization and Cities Innovation in Emilia-Romagna; from the development of Sustainable Urban Logistics and Freight Plan in Copenhagen to the home deliveries system for small shops in Graz. NOVELOG will support Cities to develop a new Sustainable Urban Logistics Plan as part of a Sustainable Urban Mobility Plan.

The next meeting is planned in Bologna, ITALY on the 14th April 2016 with the participation of the Quality Assurance Panel, a group of 9 experts in city logistics coming from USA, Japan, Sweden, Greece and Canada, which will assess tools and pilots elaborated so far in the project.

### Project Coordinator:

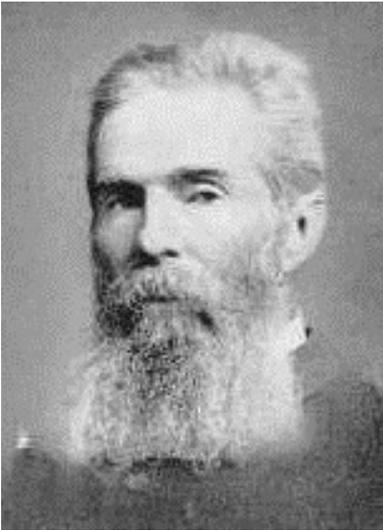
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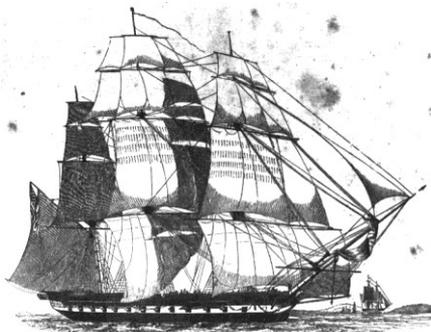
### Dissemination Manager:

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Herman Melville (1819 – 1891) in his novel „White Jacket“ gives a rare insight into warehousing, as part of his description of life on board of a then contemporary warship.

*Unknown photographer.*



The USS „United States“ (in service 1797 – 1864), on which Melville gained his experience, with a crew of more than 500 (!) was one of the largest frigates of its age (“faster than any stronger ship and stronger than any faster ship”).

Frigates were built for independent operation, with emphasis on speed instead of size or fighting power. This put specific emphasis (pressure) on both supply management and utilization of available space.

Classic text – Herman Melville:

### **A Peep through a port hole at the subterranean parts of a Man-of-War.**

A hint has already been conveyed concerning the subterranean depths of the Neversink's hold. But there is no time here to speak of the spirit-room, a cellar down in the after-hold, where the sailor's "grog" is kept; nor of the cabletiers, where the great hawsers and chains are piled, as you see them at a large ship-chandler's on shore; nor of the grocer's vaults, where tierces of sugar, molasses, vinegar, rice, and flour are snugly stowed; nor of the sail-room, full as a sail-maker's loft ashore—piled up with great top-sails and top-gallant-sails, all ready-folded in their places, like so many white vests in a gentleman's wardrobe; nor of the copper and copper-fastened magazine, closely packed with kegs of powder, great-gun and small-arm cartridges; nor of the immense shot-lockers, or subterranean arsenals, full as a bushel of apples with twenty-four-pound balls; nor of the bread-room, a large apartment, tinned all round within to keep out the mice, where the hard biscuit destined for the consumption of five hundred men on a long voyage is stowed away by the cubic yard; nor of the vast iron tanks for fresh water in the hold, like the reservoir lakes at Fairmount, in Philadelphia; nor of the paint-room, where the kegs of white-lead, and casks of linseed oil, and all sorts of pots and brushes, are kept; nor of the armoror's smithy, where the ship's forges and anvils may be heard ringing at times; I say I have no time to speak of these things, and many more places of note.

But there is one very extensive warehouse among the rest that needs special mention—the ship's Yeoman's storeroom. In the Neversink it was down in the ship's basement, beneath the berth-deck, and you went to it by way of the Fore-passage, a very dim, devious corridor, indeed. Entering—say at noonday—you find yourself in a gloomy apartment, lit by a solitary lamp. On one side are shelves, filled with balls of marline, ratlin-stuf, seizing-stuff, spun-yarn, and numerous twines of assorted sizes. In another direction you see large cases containing heaps of articles, reminding one of a shoemaker's furnishing-store—wooden serving-mallets, fids, toggles, and heavers: iron prickers and marling-spikes; in a third quarter you see a sort of hardware shop—shelves piled with all manner of hooks, bolts, nails, screws, and thimbles; and, in still another direction, you see a block-maker's store, heaped up with lignum-vitae sheeves and wheels.

Through low arches in the bulkhead beyond, you peep in upon distant vaults and catacombs, obscurely lighted in the far end, and showing immense coils of new ropes, and other bulky articles, stowed in tiers, all savouring of tar.

But by far the most curious department of these mysterious store-rooms is the armoury, where the spikes, cutlasses, pistols, and belts, forming the arms of the boarders in time of action, are hung against the walls, and suspended in thick rows from the beams overhead. Here, too, are to be seen scores of Colt's patent revolvers, which, though furnished with but one tube, multiply the fatal bullets, as the naval cat-o'-nine-tails, with a cannibal cruelty, in one blow nine times multiplies a culprit's lashes; so that when a sailor is ordered one dozen lashes, the sentence should read



This photo, showing supply management on board of a warship of today, illustrates the English language Wikipedia article on “logistics”.

*U.S. Navy photo by  
Mass Communication Specialist  
Seaman Jessica Echerri/Released*

“Port hole”: Small circular window, near waterline of a ship

“Man-of-War”: Warship

“Yeoman”: In naval context e.g. the petty officer in charge of supplies

“Troglydyte”: Caveman, hermit

one hundred and eight. All these arms are kept in the brightest order, wearing a fine polish, and may truly be said to reflect credit on the Yeoman and his mates.

Among the lower grade of officers in a man-of-war, that of Yeoman is not the least important. His responsibilities are denoted by his pay. While the petty officers, quarter-gunners, captains of the tops, and others, receive but fifteen and eighteen dollars a month—but little more than a mere able seamen—the Yeoman in an American line-of-battle ship receives forty dollars, and in a frigate thirty-five dollars per month.

He is accountable for all the articles under his charge, and on no account must deliver a yard of twine or a ten-penny nail to the boatswain or carpenter, unless shown a written requisition and order from the Senior Lieutenant. The Yeoman is to be found burrowing in his underground store-rooms all the day long, in readiness to serve licensed customers. But in the counter, behind which he usually stands, there is no place for a till to drop the shillings in, which takes away not a little from the most agreeable part of a storekeeper's duties. Nor, among the musty, old account-books in his desk, where he registers all expenditures of his stuffs, is there any cash or check book.

The Yeoman of the Neversink was a somewhat odd specimen of a Troglydyte. He was a little old man, round-shouldered, bald-headed, with great goggle-eyes, looking through portentous round spectacles, which he called his barnacles.

By reason of his incessant watchfulness and unaccountable bachelor oddities, it was very difficult for him to retain in his employment the various sailors who, from time to time, were billeted with him to do the duty of subalterns. In particular, he was always desirous of having at least one steady, faultless young man, of a literary taste, to keep an eye to his account-books, and swab out the armoury every morning. It was an odious business this, to be immured all day in such a bottomless hole, among tarry old ropes and villainous guns and pistols. It was with peculiar dread that I one day noticed the goggle-eyes of Old Revolver, as they called him, fastened upon me with a fatal glance of good-will and approbation. He had somehow heard of my being a very learned person, who could both read and write with extraordinary facility; and moreover that I was a rather reserved youth, who kept his modest, unassuming merits in the background. But though, from the keen sense of my situation as a man-of-war's-man all this about my keeping myself in the back ground was true enough, yet I had no idea of hiding my diffident merits under ground. I became alarmed at the old Yeoman's goggling glances, lest he should drag me down into tarry perdition in his hideous store-rooms. But this fate was providentially averted, owing to mysterious causes which I never could fathom.

## Herman Melville: “White Jacket” (1850)

After whale hunting around the world, Melville enlisted on board of the USS “United States” to return home from Hawaii in 1843/44. While the autobiographic novel “White Jacket” is mostly written with agitated fury, the slightly shortened excerpt presented here contrasts by its calmness. Unable to live from his earnings as a writer, Melville worked as a customs inspector for many years – a job surprisingly close to the one described above. After death, he got famous for his novel “Moby Dick.”

## Next Dates

March 2016

### Logistica

International exhibition of machinery, equipment and systems for industrial logistics, taking place in conjunction with MEC SPE, an international exhibition dedicated to production technologies.

Parma, Italy (Emilia-Romagna, see pages 10/11), March 17 – 19.

### Grocery Retailing in the United Kingdom

Lecture of Professor Michael Browne at Brussels Free University.  
Brussels, March 22.

### 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 40,500 professionals, 800 exhibitors and 80 conferences.

Paris, March 22 – 25.

### Intralogistics 2016

This year, the fair is accentuating the verticalisation of the most active sectors (e-commerce, retail, food, processing, pharmaceuticals/chemicals...) and bringing closer to the specialists in industrial property and warehouse construction to offer to the exhibitors an essential development solution.

Paris, March 22 – 25. In conjunction with SITL.

April 2016

### Railways 2016

The Third International Conference on Railway Technology: Research, Development and Maintenance. Details of the conference are available online at: [www.civil-comp.com/conf/rw2016/rw2016.htm](http://www.civil-comp.com/conf/rw2016/rw2016.htm).

Cagliari, Sardinia, Italy, April 5-8.

### Ulmer Logistik-Tag

“Logistics meets Industry 4.0.” The bi-annual logistics congress is organized in cooperation with Open ENLoCC member LCS.

Ulm, Germany, April 7.

### 3<sup>rd</sup> European Conference on SUMP

This is the principal annual event for all those involved in turning the Sustainable Urban Mobility Plan (SUMP) concept into practice. Join European Commissioner for Transport Violeta Bulc, for an interactive discussion on how the take-up of the SUMP concept can be accelerated across Europe.

Bremen, Germany, April 12/13.



### 11<sup>th</sup> Open ENLoCC General Assembly

The yearly General Assembly of Open ENLoCC will be held in Bologna, hosted by the Open ENLoCC member Institute for Transport and Logistics ITL.

The focus of the public part of the Assembly will be on city logistics, jointly organized with the NOVELOG project (see page 17):

#### “Cities in urban freight issues: Training on tools, actions and results”

Project teams of SUCCESS and CITYLAB under the EU Horizon 2020 programme will join the event in Bologna.

The second day is dedicated to exchange of knowledge and ideas among the Open ENLoCC members, as well as to the formal deliberations.

Bologna, April 14 (public session) and April 15 (Open ENLoCC deliberations).

**Transport Research Arena Conference - TRA 2016**

The most important transport research event in Europe, gathering every 2 years the key stakeholders: researchers, experts, operators, industry and policy-makers. An efficient and sustainable mobility of people and goods can only be achieved by a close co-operation between research and industry. The synergy between these two fields of activity is an asset that we have to wisely use for the benefit of our citizens. TRA 2016 aims at getting science, research and industry closer to each other and pointing out challenges and opportunities they can efficiently face together. Enabling the free movement of people and goods is crucial to economic prosperity and quality of life. Warsaw, April 18 – 21.

**TransRussia**

21st International Exhibition for Transport and Logistics Services and Technologies. TransRussia is the largest and most comprehensive international transport, logistics and Supply Chain Management exhibition in Russia and the CIS countries, with 360+ exhibitors and over 13,500 attendees. Training workshops, presentations, round table discussions, press conferences and other events conducted by the exhibitors will be held.

Moscow, Crocus Expo, April 19 – 22.

**Focus on Maritime Safety Conference**

The international conference Focus on Maritime Safety gathers maritime safety experts from all over the world to Helsinki to discuss safety issues. The Centre for Maritime Studies of the University of Turku in Finland is organising the Conference Focus on Maritime Safety in co-operation with the International Association for Safety and Survival Training IASST and Meriturva - Maritime Safety Training Centre in Finland. Helsinki, April 25.

May 2016

**9<sup>th</sup> Symposium Logistik Innovativ 2016**

60 years of success for the ISO standard container in combined transport: How can this success be transferred to standard piggyback trailers, and how can the industry profit from digitization?

Prien am Chiemsee / Herrenchiemsee, Germany, May 3/4.

**Transcaspian**

15<sup>th</sup> anniversary international railway infrastructure and rolling stock, maritime industry, aviation, transport and logistics exhibition.

Baku, Azerbaijan, May 11 – 13.

**Challenges of CSR research in maritime transport**

The international and transboundary nature of maritime transport poses significant challenges in defining, measuring and reporting maritime corporate social responsibility.

University of Turku, Finland, May 17.

**Sustainable Shipping – Final seminar organised by CHIP & MariePRO projects**

The seminar will highlight perspectives on sustainable shipping, quality shipping and Corporate social responsibility (CRS). In parallel, the seminar focuses on aspects of environmental awareness in Maritime vocational education. No attendance fee. Kick-off for the European Maritime Day. <http://www.konferenssit.fi/17884>.

Turku, Finland, May 17.

**European Maritime Day 2016**

European Maritime Day is celebrated annually in Europe. The EMD Conference welcomes Europe's growing maritime community to discuss, debate and exchange best practices. The main themes, which will be elaborated in coming months, will be around boosting Blue Growth in Europe and worldwide, with a special focus on the High North.

Turku, Finland, May 18/19.

**Navigate**

The Maritime Expo. In parallel with the European Maritime Day 2016.  
Turku, Finland, May 18/19.

**LOGISTICS 2016 – Polish Logistics Congress**

Organized by Open ENLoCC member ILiM, the bi-annual Polish Logistics Congress with over 800 participants, 70 presentations and 50 exhibitors is the largest regular logistics congress in Poland. The 13th edition will also gain a European dimension, as it will be organised jointly with the European Logistics Congress EUROLOG 2016. The leitmotif of the upcoming congress will be "Logistics in a digital world".  
Poznań, May 18 – 20.

**Baltic Sea Region Forum**

"Maritime cluster in the Baltic Sea region and beyond" – the focus of the Forum will be on transport, shipbuilding and marine cluster. The keynote speech will be delivered by the former President of Finland, Tarja Halonen.  
Turku, Finland, May 20.

**3<sup>rd</sup> Conference on Sustainable Urban Mobility,**

"Anthropocentric approach in urban mobility planning", with special session "CityLogistics in an era of change" by Novelog project (see page 17)  
Volos, Greece, May 26/27.

**CeMAT**

The leading international fair on intralogistics expects to attract more than 1,000 exhibitors from around the globe. This year's lead theme is "Smart Supply Chain Solutions." CeMAT will highlight the pivotal role of logistics in today's increasingly digitized and integrated industrial value chains.  
Hannover, May 31 – June 3.

June 2016

**11<sup>th</sup> ITS European Congress**

"Delivering Future Cities Now", based on Glasgow's pioneering work. The event consists of an extensive exhibition, with over 100 high level technical sessions.  
Glasgow, Scotland, June 6-9.

**7<sup>th</sup> Logistics-Day 2016**

The Regionalmanagement Nordhessen and DVV Media Group Hamburg invite logisticians from all over Germany to inform and update themselves about this year's topic, Logistics 4.0: Already Practice or still Theory? Experts present innovations, exemplary concepts for automation as well as modified requirements for real estate used for logistics 4.0. Well-known companies such as MAN, Siemens, Lufthansa and Schenker are taking part. Find out more: [www.logistiktag.de](http://www.logistiktag.de).  
Kassel, June 9.

**8<sup>th</sup> International Scientific Symposium on Logistics**

Two of the characteristic features of successful logistics research are close cooperation with real-world logisticians and interdisciplinary thrust of key projects. BVL International promotes these developments on various levels. The aim is to promote the exchange of ideas across specialist and geographic borders to provide solutions to real-world issues that are of relevance to researchers and scientists.  
Karlsruhe, Germany, June 15/16.

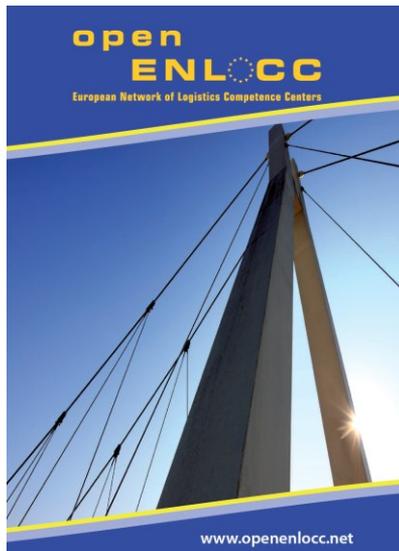
**Workshop on maritime transport: North Sea vs. Mediterranean ports**

Sestante (Confindustria Ravenna) organizes this public student workshop in Stuttgart with Open ENLoCC members ITL and KLOK, within a logistics training course.  
Stuttgart/Kornwestheim, late June (t.b.a.).

July 2016

**World Conference on Transport Research**

Shanghai, China, July 10-15.



## 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 III C 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.

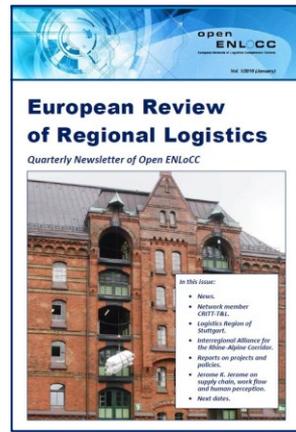
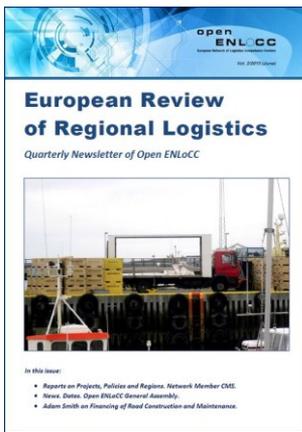
As per March 2016, the European network of regional logistics competence centers Open ENLoCC has the following members:

- 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, **NEW** for former member Entwicklungsagentur Kärnten, EAK.
- i-Fret, Innovation platform i-Fret for freight logistics, Dunkerque, France.
- 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.
- PBN, Pannon Business Network Association, Szombathely, Hungary.
- UM, University of Maribor, Faculty of Civil Engineering – Transport Economics Centre, Maribor, Slovenia.
- WRS, Wirtschaftsförderung Region Stuttgart GmbH, Stuttgart, Germany.

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