Ladies and gentlemen, dear friends, and valued partners of the ISL,

2014 was an exciting and eventful year for the institute. We have, through the combined efforts of our colleagues, continued to intensively promote reciprocal transfers between the industry and the sciences and, as you will note in the following pages, we have acquired and developed a number of projects of great interest. We would like to expressly thank our employees for their teamwork and dedication.

One of our stand-out events of 2014 was without a doubt the 60th anniversary of establishment. Founded on 30th May 1954 by a senatorial resolution as the Bremen „Institute of Shipping Research“, the ISL has developed over the past six decades, passing through various stages and names and methods of organisation and focus of content to become one of Europe’s leading research and knowledge transfer institutes. This positive development and the current status of the ISL were honoured during an anniversary reception towards the end of March 2014, in the presence of a number of guests from the circle of friends and business partners, and by a welcoming address given by Federal government’s coordinator for maritime industry, the State Secretary Uwe Beckmeyer.

Mr Beckmeyer articulated the vital role of the ISL not only as a competent and independent institution serving the maritime economy, but also as an advisory body for policy makers on a range of maritime and logistics issues. He encouraged further work to be done at the point where research, industry and policy meet, and called for the stronger utilisation of the ISL’s competencies and knowledge base.

Another highlight in 2014 was our ISL Maritime Conference in Bremen, already in its 4th appearance, at the beginning of October. With more than 160 registered participants from all sectors of the maritime economy as well as the spheres of research, management and politics, we were able over the course of two days to discuss many interesting topics and trends from such fields as global transport markets, innovations in maritime logistics processes as well as the influences of new information and communications technologies. Against the background of the anniversary the entire event was held in the impressive venue of the historical Bremen town hall, lending this event an especially festive atmosphere.
We are also proud of the fact that in November 2014 we won a prize for a scientific publication. The Best Paper Award, sponsored for the first time by the Gebrüder Weiss GmbH, honoured our contribution to Decentralized Approach to Logistics Execution Monitoring in Multi-actor Networks within the framework of the 7th European Conference on ICT for Transport Logistics (ECITL) upon which our employee Oliver Klein worked as co-author.

As the following pages within this research report will make clear, the ISL remains active in a broad spectrum of maritime and logistics issues. There has been particular focus on such themes as logistics centres and freight villages, environment and sustainability, ports and inter-modal hinterland traffic analysis and forecasting, information and communication along the transport chain, supply chain integration and management, security and international logistics training. We shall continue to monitor and document maritime activities while we strive to identify new, forward-looking or trend-setting fields for applied research and consultation in the milieu of ISL’s core area - maritime logistics.

We hope that the perusal of this report will awaken your interest and stimulate further ideas. We would look forward to any future cooperative efforts or personal conversations to exchanges ideas.
The current Institute of Shipping Economics and Logistics was founded in 1954 as the Institute of Shipping Research by the Senate of the Free Hanseatic City of Bremen. The point of the new foundation was to drive and promote scientific research into shipping. In the previous year the ISL celebrated its 60th anniversary.

The Prior History 1948 to 1953

During Bremen’s postwar years the idea of an international university had already been mooted and thus, shortly before the currency reform of 8th June 1948, a Foundation for the Promotion of the Establishment of an International University in Bremen was brought into being by the Bremen Senate. The founding principles proposed the purpose of the new foundation to be „the creation of the ideological and material prerequisites for the establishment, construction and maintenance of a university in Bremen“. The first Chairman of the foundation was the lawyer, later President of the Federal Republic of Germany, Dr. Karl Carstens. The foundation’s Advisory Board comprised three members of the Senate, all of which were close to the university project: the Mayor Dr. Theodor Spitta, Senator Dr. Wilhelm Nolting-Hauff and Senator Christian Paulmann. When Carstens transferred to Bonn as Bremen’s authorised representative, Dr. Ehrenfried Schütte was called to the foundation’s Chairman towards the end of 1949. Senator Gustav Wilhelm Harmssen and Senator Willy Dehnkamp, who replaced Senator Paulmann, joined the Advisory Board in 1952.

During the currency reform a large portion of the budget, approximately ten million Reichsmark, had to be cut from the foundation’s original capital due to the provisions of the military government. Few resources remained following the currency conversion, an amount of around 195,000 DM, therefore the founding of the university could only proceed on a severely reduced scale. Therefore in 1949 it was decided to begin with the construction of a university library. Among the books procured a number were dedicated to shipping, ship construction and sea ports. It soon became clear that the plans for the construction of a university were no longer feasible within the time allowed (the current university began at the start of the 1970s). The Executive Board and the Advisory Board of the foundation were faced with the question of what the task of the foundation now was, and what was to be done with the remaining assets. An agreement was soon reached to concentrate these resources on the special tasks of Bremen within the Federal Republic of Germany. Article 38, paragraph 2 of the Bremen state constitution from 21st October 1947 states: „The economy of the Free Hanseatic City of Bremen is a part of the unified German economy and as such has the special task of engaging in maritime trade, shipping and marine fisheries. “
Thus the idea arose to focus the remaining resources of the original foundation fund on maritime transport economics. This began in 1951 and 1952 through the Bremen Committee for Economic Sciences, which had already been established in 1947. The allocation of earmarked research materials to this committee enabled the initial development of know-how, which was to justify the founding of an independent institute at a later date. At that time the director of the shipping department of this committee was Dr. Gustav-Adolf Theel, a man with decades of experience in the fields of both theoretical and practical shipping research and who went on to supervise a number of works drawn from the expertise of shipping research. The most notable publications were the first edition of the „Bremen World Shipping Yearbook“ as inspired by Theel, which appeared towards the end of 1953 and had a print run of 3.000 copies, as well as the „Bremen Contributions to Shipping Research“. As the positive feedback from these works and publications demonstrated, the foundation had chosen the right path by supporting shipping research in Bremen.

THE FOUNDING IN 1954 AND THE 1950s

After the Hamburg Senator for Economy and Transport, Ernst Plate, had declared to the Hamburg citizenry that Hamburg needed to catch up with Bremen’s progresses in the field of shipping research, Bremen concentrated its efforts on the establishment of an independent foundation in this field. Mayor Spitta indicated the urgent need for a resolution from the Senate in its session dated 30th May 1954, as Hamburg was at the same time considering the establishment of an institute for shipping research. In the same session Dr. Hermann Apelt, who was then the Senator for Ports, Shipping and Transport, explained to the Senate members that the numerous original tasks of the foundation, the promotion of the establishment of an international university in Bremen, could not be completed with the scarce resources at hand, and that the decision had been made to retain one of the foundation’s responsibilities, one that was of particular interest to Bremen, and to let all other disciplines lapse.

And thus the Senate agreed, even within this particular session, to the renaming of the Foundation for the Promotion of the Establishment of an International University in Bremen from 1948 to the Foundation for an Institute of Shipping Research.

THE FIRST DIRECTOR FROM 1954 TO 1971 AND CO-FOUNDER OF THE INSTITUTE OF SHIPPING RESEARCH, DR. GUSTAV ADOLF THEEL

The new purpose of the foundation was to be the operation and promotion of scientific shipping research in the Hanseatic City and that same day the Executive Board and the Advisory Board formally
made the necessary resolutions for a renaming and a change of charter, both of which were immediately approved by the Senator for Internal Administration.

The first director and scientific leader of the new institute was Dr. Gustav-Adolf Theel, who continued to lead the institute until his retirement in 1971. Dr. Ehrenfried Schütte remained Chairman of the foundation, while the Advisory Board, where Senator Ludwig Helmken had replaced the departing Senator Harmssen, was complemented by Senator Apelt. Schütte, who purposefully drove the transformation of the old foundation into the Institute of Shipping Research, was followed into the Executive Board of the foundation in 1957 by the lawyer Dr. Johannes Lohmann and the executive board member of the Bremer Landesbank Dr. Johann Diedrich Noltenius. Then, in 1959, Dr. Rudolf Nolting-Hauff, the authorized signatory of the Bremer Landesbank and the son of the long-standing Bremen Senator for Finance Nolting-Hauff was also called to the Executive Board of the foundation. The composition of the Advisory Board was also changed during the following years.

While in 1954 and 1955 there were still five members of the Bremen Senate, the composition after 1956 consisted of two Senators (the Senator for Economics Research and Foreign Trade Helmken and the Senator for Education Dehnkamp) and a leading civil servant from each of the Senatorial Authorities for Ports, Shipping and Transport, for Finances and for Economics. In addition there were speakers from the participating Senatorial Authorities, a member of the Budgeting Committee, the chairman of the Bremen Association of Shipping Companies, a representative of the Bremen Port Authority, and a union representative.

Following its founding in 1954 the institute was to primarily acquire and publish statistical maritime data in shipping science publications as well as to collect, bibliographically organise and evaluate materials regarding matters of shipping, ports and ship construction. In a newsletter dated April 1955, Theel described the institute as “a site of economic and social research work in the fields of maritime shipping, ship construction, ports and other closely related themes” and emphasised the broad base of data and material present within the framework of the shipping library that had existed right from the start. Even today the ISL InfoCenter is one of the leading scientific libraries in the field of maritime science and logistics and boasts a collection of around 130,000 volumes. Then as now this information is available to anyone interested and serving as a databank for the institute’s research activities. The first “Bremen World Shipping Yearbook” was followed in 1954 and 1955 by a much respected second edition. Based on this yearbook, from 1959 the “Shipping Statistics Yearbook”, was created, and is published annually until today. Various monographs were also published in a new series titled “World Shipping Archive” while 1957 saw the appearance of the first edition of the monthly “Shipping Statistics and Market Review”, currently being published in its 58th year.
FURTHER DEVELOPMENT FOLLOWING 1960

In the course of its 60-year history the institute it has seen many changes in its scope. Shortly after its founding it became clear that there was a further need for information, especially in the areas of qualitative market research, of analysis of the development of special markets, including liner and container shipping, ferry and cruise ships and ports, and of strategic concepts in the maritime economy. Matters relating to businesses, organizations, finances and economics were investigated with regards to ports, internal transport carriers and shipping companies. In addition, methods for concise analysis and forecasting in maritime shipping, ship building, ports and cargo transport were developed within the field of empirical shipping research. Describing the activities at the institute from the 1970s onwards, Dr. Hans Ludwig Beth, the successor to Theel as the second director from 1971 to 1985, looked back on this development and noted that the fundamental principles of the foundation, which were “to conduct and promote scientific shipping research” have since come to be interpreted as “scientific research into shipping economics”. He considers shipping, shipping businesses, maritime trade, freight markets, ship building and shipyards as well as ports, marine canals and port economies to be within this scope. Furthermore, he lists the analysis and forecasting of current markets, the continual development of necessary instruments and methods, the closure of gaps in data, and active mediation and professional discussions on the knowledge gathered under the theme of shipping economics. In accordance with this in 1967 the Executive Board and the Advisory Board, followed by the Bremen Senate, agreed to a change in the charter and to a renaming of the Institute of Shipping Research into Institute of Shipping Economics.

With the expansion of general shipping, at the beginning of the 1980s the scope of the institute could no longer be confined to maritime shipping. The development of the economy necessitated the inclusion of hinterland shipping, and thus the inclusion of entire transport chains between producer and consumer. Both then as now it is clear that such complex tasks could only be solved through the inclusion of logistics systems and information...
logistics approaches. Therefore the institute gained the fields of logistics and system analysis in 1984. This expansion was reflected in the name of the institute, which was at first defined as the Institute of Shipping Economics and Shipping Logistics. In 1988 the institute was split into three departments and received the name by which it is known today: Institute of Shipping Economics and Logistics, or ISL for short.

The new Board of Trustees, acting as an oversight committee, henceforth appointed a Chairman of the Directorate and leader of the institute from the circle of directors, thereby relieving the foundation’s Executive Board of this task. In addition to the Directorate and the Board of Trustees, the Scientific Advisory Board was newly defined in 1989, as the Board of Trustees had taken on many of the tasks that had previously come under the old Advisory Board.

In 1994 the three main focus points, i.e. the three departments, were defined in response to constant changes and developments in maritime markets as “Economics”, “Transport” and “Telematics”. In 1997, following a number of location changes within Bremen (Schüsselkorb, Holler Allee, Werderstraße, Börsenhof/Am Dom, Universitätsallee) the institute responded to market demands with the establishment of a second branch in Bremerhaven, which soon became the fourth department of the ISL.

In 2003 the four departments were defined as “Logistics Systems”, “Maritime Economics and Transport”, “Information Logistics” and “Planning and Simulation Systems”. After the Bremerhaven office moved to the t.i.m.e Port II in 2006, the IT-related activities at both locations were bundled once more into a department known as Information Logistics, and to this day the three departments are “Logistics Systems”, “Maritime Economics and Transport” and “Information Logistics”. Following the final relocation in 2008 of the Bremen ISL to a new site on the Universitätsallee, ISL Applications GmbH was finally established in 2010, serving to support knowledge transfer between research and practice.

THE ISL TODAY

By connecting tradition and modern science, the ISL is today one of Europe’s leading institutes for applied research, practice-orientated consultation and the transfer of know-how to the field of shipping economics and logistics. Around 50 employees work on global projects involved in complex maritime transport chains and their subsections while including logistics systems, applications in information logistics and methods of operations research in the name of both public and private partners at two locations in Bremen and Bremerhaven. The research field “Logistics Systems” looks at questions regarding the future of logistics, for example intermodal transportation along supply chains and regional net-
works such as freight villages and logistics centres. Furthermore, new approaches to meso-logistics, supply chain controlling, green logistics and cooperation between multi-agent systems are being developed and implemented as practical applications. The emphasis on “Maritime Economics and Transport” serves to advise politics, industry and management in the fields of shipping, ports, hinterland and ship construction. The basis for these is formed by the analysis of influencing factors and interdependencies as well as the development of forecasts for markets in the maritime industry. The fields of the environment and shipping are also taken into consideration. Finally, the department “Information Logistics” works on information and simulation technologies for the transportation industry, for example through a networking of IT systems along the transport chain, the implementation of quantitative methods, the optimisation of logistics processes, or the planning and supervision of intermodal transport chains through an active supply chain event management.

Within the framework of these projects the ISL is constantly aware of the use these technologies have already found within the industry, through a framework of cooperation with companies within the logistic branch, as early as the stages of fundamental research and development - for example as innovations in information technology, which often have their origin in research and science. Another important feature of application-orientated research is its ability to allow the flow of current developments and framework conditions into daily tasks, such as in security research, which is becoming increasingly important.
The **department of Logistics Systems** deals primarily with macroeconomics and regional economic themes. At the same time the main focus is on process-orientated supply chain integration of both modal and intermodal transport and the analysis, planning and evaluation of regional logistics locations and networks such as freight villages and logistics centres. Further projects are represented in the fields of urban mobility, sustainability and green logistics as well as secure transport chains. In addition, innovative approaches from both science and practice are taken up and further developed within the fields of supply chain controlling and simulation, multi-agent systems and the development of standardisation templates in logistics. Finally, for many years the department has undertaken a number of successful international projects in the field of knowledge transfer.

Project partners have included businesses within the maritime industry, as well as traders, producers and logistics companies as well as the EU, the Federal Government, Federal States and municipalities. The ISL is connected via this department to the logistics network „Via Bremen” and the research association „Bremen Research Cluster for Dynamics in Logistics (LogDynamics)” of the University of Bremen. Furthermore, this department has for many years represented the institute as a place of research for the „Federal Logistics Association (Bundesvereinigung Logistik, BVL)” and the „Organisation of Transport Economics and Logistics (Gesellschaft für Verkehrsbetriebswirtschaft und Logistik, GVB)“.

**Selected projects and activities in 2014 were:**

**SMART SC - SMART SUPPLY CHAIN INTEGRATION**

Efficient and intelligent container transport to and from German maritime ports - Since 2012 and against the background of national competitiveness in global cargo shipping and the constantly growing transport volume the network project **SMART SC - eBusiness-Standardisation in the Maritime Supply Chain**, supported by the
Federal Ministry for Economics and Technology, has set its sights on sustainable improvement in the communication structures in port-centric transport chains. The aim of this project is to boost efficiency in existing logistics processes throughout the entire container-related value adding chain, both in import and in export, through the industry-wide adoption of eBusiness-standards. In order to improve such physical processes as transport, transhipment and warehousing, the information, communication and transaction pathways accompanying the flow of cargo should be harmonised and data, information and documentation should be exchanged between participating businesses in the supply chain, in an efficient manner and with a minimum number of errors.

Essential tasks within the project consortium of SMART SC are the development and implementation of a Data Mediator, the implementation of a supply chain event management module, the development of mobile components for trucks, and the consideration of the economics and sustainability of any solution based on the resulting specifications.

» www.isl.org/research
» www.smartsc.isl.org

LOGISTICS SITES AND NETWORKS

During the past year various projects were once more under development within the field of site logistics, for the development of freight villages and for logistics clusters, in cooperation with, among others, the Deutschen GVZ Gesellschaft (DGG).

For example, the research project **GVZ-Climate Change Benchmarking**, commissioned by the Federal Ministry for the Environment, was successfully completed in the middle of 2014. This project identified approaches to solutions regarding sustainability at German freight village locations using comprehensive data collection.

The core of these activities was the construction of a results database for freight village participants in Germany, as well as additional stakeholders, which contained information on the energy efficiency categories of facilities, resources, vehicles, organisations, energy use and intermodality. The central results were then transferred to the GVZ landscape. The dissemination of best practices followed via a number of measures, including roadshows, workshops, conference lectures and via a website, which has been maintained by the DGG since the summer of 2014.

» www.isl.org/research
» www.gvz-klimaschutzbenchmarking.isl.org
An important task in the field of site logistics is represented by the undertaking \textit{European GVZ-Comparison}. This project, which began in autumn 2014, is a repeat of the first European freight village ranking, which was first performed in 2009 and 2010. This ranking has in the past created a great deal of attention within the industry.

The DGG has also cooperated with the ISL on three advisory projects during the past year. This included the undertaking \textit{A Development Concept for Cargo Shipping Centres in Germany} as well as the project \textit{Intermodal Relocation Options for the Region of Brandenburg/Berlin}. Furthermore the EU project \textit{EcoHubs} must be mentioned. This develops models and opportunities for the cooperation and communication between participants in multi-modal terminal networks. Its focus is the optimisation of these networks towards hubs that are more environmentally friendly and greener. This includes the development of solutions regarding joint added value service, the optimal use of logistics resources and CO$_2$-reduced transportation.

\textit{NOTIERT - STANDARISING LOGISTICS}

The research project \textit{NOTIERT - Standards for Sensor-based Data Capturing Systems on Temperature Controlled Transports}, supported by the Federal Ministry for Economic Affairs and Energy, began in autumn 2014.

The basis of NOTIERT were the results from project SMITH, which concluded successfully in autumn 2013, and which had investigated improvements in the energy efficiency of passive temperature controlled transports using liquid aluminium as an example. Temperature controlled transports are a requirement in a number of fields and ensure suitable conditions for nationally or internationally transhipped cargo. Temperature controlled cargo includes frozen or chilled foods, pharmaceuticals, chemicals or liquid tar and metal at high temperatures.

While passive temperature control only uses thermally isolating containers, during active temperature control individual containers, or even entire trailers, are supplied with electrical energy in order to maintain a desirable temperature range independent from surrounding environmental conditions. So far the market for active and passive temperature controlled transports has lacked guidelines appropriate to standardised systems.
for the long-term recording and analysis of relevant influencing factors.

Therefore the framework of NOTIERT sets out that standard guideline for the application and operation of sensor-based data recording systems on temperature controlled transports are to be developed by the middle of 2016. These describe a whole and standardised system of hardware and software components that are suitable for the continuous recording, storing and evaluation of relevant measurements that may be recorded with freely combining sensors, and which are appropriate to the legal status at that particular time and for that particular user. This will be aided by the successive integration and transfer of existing, innovative results from research projects such as SMITH into the logistics industry and businesses via the transfer of norms and standards. In particular the long term recording and evaluation of relevant exogenic influence factors for active and passive temperature controlled transports across all participating branches and service providers, none of which is as yet available on the market, will be considered.

» www.isl.org/research
» www.notiert-projekt.de
The main activities and services of the *Maritime Economics and Transport department* are not only the analysis of influencing factors and interconnections, the development forecasts for maritime shipping markets, but also advising the appropriate decision makers within business, politics and administration. In particular these activities encompass shipping, ports and the hinterland, and ship building. The department also deals with issues regarding shipping and the environment, in addition to purely economic considerations. Furthermore, the project frameworks develop the analysis and forecasting of measures and programmes for transportation policy on regional, national and international levels, and evaluate and develop qualitative and quantitative approaches to transport planning and onshore and maritime transport modelling. Traditionally the task range comprises a broad spectrum of consultation, advising both policy and industry through sound market information. Overall the ISL has access to a broad spectrum of databases and information services.

*Selected projects and activities in 2014 were:*

**MARKET STUDIES AND MARKET MONITORING**

Based on a framework of studies, publications and projects the ISL continuously monitors *Market Developments in the North Range Ports and their Hinterland*, in order to keep clients informed about new trends and deviations from expected developments. The basis of this is, to give an example, the *North European Container Traffic Model*, which has for the past number of years been analysing container flows to and from the most important North range ports, and which serves as a key data source for hinterland shipping. A further example is the *Global Port Tracker - North Europe Edition*, which is regularly published with Hackett Associates.

» [www.isl.org/nectm](http://www.isl.org/nectm)  
» [https://shop.isl.org](https://shop.isl.org)

An additional instrument is the *RWI/ISL Container Throughput Index*, which is published monthly in cooperation with the Rheinisch-Westfälisches Institut für Wirtschaftsforschung, and which analyses the development of global container traffic. This index facilitates reliable conclusions regarding the development of global container shipping.
economic activities, as international trade is to a great extent conducted across global ports via maritime shipping and container transhipment. Therefore, the ISL continuously includes in this report information gathered from 72 ports that handle roughly 60% of worldwide container throughput.

» www.isl.org/containerindex

In addition the ISL has a System of Elaboration of Client-specific Market Reports and Concise Studies covering various sectors of maritime shipping (containers, tankers, bulkers, multi-purpose vessels, platform suppliers, cruise ships, car carriers, ferries, etc.). Another key asset is the complex Data and Estimation Model for Global Container Traffic, designed as a „multi-client“ approach focused on Europe, whose market segments encompass deep sea and short sea transport as well as hinterland and transhipment regions.

There is an increasing demand for studies on various aspects of marine tourism and the cruise ship sector. These studies are based on the ISL World Cruise Fleet, which has been in print for decades, and the River Cruise Feet Handbook. For example, biannual market reports on both fields are delivered to a ship financing association. Before the construction contract for Hamburg’s third cruise line terminal was awarded, the ISL was tasked with a study forecasting the long-term developments of port arrivals.

PORT AND SHIPYARD DEVELOPMENT

A main activity of the department includes consultation for ports and ship construction. In the previous year there was a particularly high demand for port forecasting.

Within two months in the spring of 2014 the ISL was given commissions by the Port Throughput Forecast for Rostock (Hafenentwicklungsgesellschaft Rostock mbH), Hamburg (HPA Hamburg Port Au-

thority AöR) and Bremen/Bremerhaven (bremenports GmbH & Co. KG). While the forecast of Rostock’s throughput potential could be built onto preliminary work done on cargo flows in the Baltic Sea, ISL’s North European Container Traffic Model formed the essential foundation for the forecasting of North Sea ports. A mixed approach was chosen for this process, one which estimated the development of traffic flow, to which many types of carriers contributed (e.g. container, RoRo, new vehicle transhipment) based on branch or foreign trade forecasts. On the other hand, the development of cargo volume that was generated through either one or a small number of shipping agents (typically with bulk goods), was based primarily on the knowledge of those active in the market.

Finally, the ISL was tasked in autumn 2014 with evaluating a forecast made for the Port of Dunkerque. Data from the North European Container Traffic Model was also used as input in this project.
Autumn 2014 saw the conclusion of investigations regarding the *Feasibility for an Additional Container Terminal in Wilhelmshaven* and a possible further expansion of the JadeWeserPort. The ISL, together with ISL Applications GmbH, won the tender for the analysis of demand, cost-benefit analysis and operational terminal design. The North European Container Traffic Model was used to determine the market position of Wilhelmshaven with respect to the hinterland and feeder shipping. This, together with updated whole market forecasts, enabled the estimation of the development potential of transhipment in Wilhelmshaven. And, combined with other information, this has provided a plausible time frame for the commissioning of additional capacities and their dimensioning.

In summer of 2014 the department was able to support the *Port of Amsterdam with a Ship Size Analysis* for its future planning. During the renewal or the expansion of port infrastructure, a question arose regarding future ship sizes. The ISL made an estimation of the future average and maximum sizes of ships heading to Amsterdam, based on an analysis of the world fleet and its stage of development on the one hand, and current and predicted navigable areas on the other hand. Ship types such as bulkers, tankers, containers, cruise ships etc. were all differentiated.

The project *Observatoire des Coûts de Passage Portuaire*, jointly conducted with MLTC Maritime Logistics and Trade Consulting (Paris) and SBC Shipping Business Consultants (Madrid), conducted detailed monitoring and a determination of port docking costs in various European ports. Here the ISL was responsible for ports in Northwestern Europe and the Black Sea. The aim of this project, undertaken on behalf of the French Ministry for Ecology, Sustainable Development and Energy, was to determine the competitiveness of French ports in various cost categories as well as to identify best practices.

In December 2013 the ISL received a commission from Hamburg Port Marketing to analyse the *Market Volume of Containerised Short Sea Traffic in the Baltic Sea Area* within the framework of the project „TransBaltic Extension“ in the INTERREG Baltic Sea Region Programme of the EU, and to estimate its future development potential in competition with RoRo traffic. Using extensive surveys it was possible to determine the role of pallet-wide 45 feet containers in strengthening shortsea-land-transportation.

Investigations on the *Use of Ports in Emden and Cuxhaven* regarding capacity, technical condition and further opportunities for use began at the end of 2013 with the partners CPL and IPC. This focused on the abundant quay facilities in the older parts of both ports. The background was a purely statistics-based appeal from the regional court of audit.

Within the framework of the *EU Notification Cuxhaven* for the public financing of a quay wall at berth 4 of the Europakai located in this port town in Lower Saxony, the ISL provided the justification for the requirements under
consideration of traffic development both at the multi-purpose facility and in offshore traffic.

SHIPPING AND SHIPPING POLICY

For some time the shipping experts at the ISL have regularly conducted an Analysis of the Heavy Lift and Project Cargo Markets and prepared a report on the development of the fleet of heavy lift vessels and on the markets for industrial goods, which have a greater likelihood with respect to the shipping of larger cargo units in the sense of project transport. This requires an extensive investigation into fleet and order book development using information provided by IHS Fairplay and Clarkson Research, in order to understand the reality of fleet development and specifications. At the same time the development of orders are investigated on a global scale, for example in the offshore industry, power plant construction, the construction of chemical facilities or refineries, pipeline construction, port construction and a number of other sectors, in order to assess indicators for the development of demand for project cargo and heavy lift carriers.

The project BSR Innoship - Baltic Sea Cooperation for Reducing Ship and Port Emissions through Knowledge- and Innovation-based Competitiveness conducted within the framework of the INTER-REG Baltic Sea Region Programme of the EU with 18 partners from research, port towns and port administrations was concluded towards the end of 2013. The aim was to reduce both vessel and port emissions through cooperation with the various stakeholders in the maritime sector in the Baltic region using a variety of innovations and measures based on existing know-how.

One result was the development of the Baltic Sea Clean Maritime (BSCM) Award in cooperation with the Baltic Sea Forum (BSF), and which was given out for the second time in 2014 during the European Maritime Day in Bremen.

» www.isl.org/research
» www.innoship.eu

SUSTAINABILITY IN THE SHIPPING INDUSTRY IS BECOMING INCREASINGLY IMPORTANT
SHIPPING AND THE ENVIRONMENT

The aim of H2OCEAN - Development of a Wind-Wave Power Open-sea Platform Equipped for Hydrogen Generation with Support for Multiple Users of Energy in the EU Commission’s 7th Research Framework Programme, which concluded in December 2014, was to develop an innovative design for an economically and ecologically sustainable multi-purpose platform for use on the high seas. Here, energy won from the wind and the waves may be partially used for a variety of applications on the platform itself, such as for the transformation of the energy produced or the operation of multi-trophic aquaculture facilities.

In addition to the integration of various activities and functions into a joint multi-use platform, the prominent feature of the H2OCEAN concept lies in its new method of approach to the transformation of electrical energy generated by wind and waves into hydrogen, which is stored and transported to the mainland as a green energy source. This concept enables the effective transport and storage of energy, and means that production and consumption are disconnected, something that is currently not possible with offshore energy systems. Furthermore, this concept bypasses the need for any transmission via cables, thus saving high investment costs and allowing energy prices to remain stable.

The project has a running time of over three years and altogether comprises 17 partners, of which six are research companies, ten are SMEs and one is a large company.

> www.isl.org/research
> www.h2ocean-project.eu

ISL’s Simulation of Vessel Emissions in Ports is a model for mapping vessel movements that was developed in conjunction with the Information Logistics department. Ship movements in port are estimated, simulated in chronological order and finally integrated with their respective calculated emission values. In addition to the determination of the traffic of even small bunker and port authority vessels and hinterland vessel traffic, a database with the specifications (performance, consumption, emissions etc.) of each of the various engines in use on these ships is constructed. Input parameters such as vessel engines and their emissions and predicted ship sizes are regularly updated. During the standardisation of this model for entire port systems the vessel-related values were expanded to include onshore emissions. Here the focus lies particularly in the inclusion of port, handling or transport chain related emissions (e.g. cranes, van carriers, trucks) as well as the validation of savings potential. The analysis and imaging of ship emissions had its first application as an example in the Elbe Simulation in the Port of Hamburg commissioned by the HPA Hamburg Port Authority as well as a pilot of the expanded system as commissioned by bremenports as an Emissions Model of Ports in Bremen.

Finally, the ISL also determined the Carbon Footprint of the Ports in Bremen for bremenports. For this the relevant businesses were surveyed and key values were determined, in order to determine the CO₂-emissions of cargo during its passing through of Bremen ports, even regarding individual cargo types. In conjunction with this an appropriately flexible calculation model was developed and transformed into an IT-supported tool.

GREEN RESPONSIBILITY IS ALSO AN IMPORTANT ISSUE IN PORTS

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On the 1st and 2nd of October of the past year the Institute of Shipping Economics and Logistics held the ISL Maritime Conference 2014 in Bremen and thus continued its traditional procession of events. As in the previous years the participants were treated to exciting lectures, discussions and forecasts on current situations and perspectives in the global maritime industries. The focus of the speakers from business, science and politics was once more shipping markets, ports and the hinterland.

A particular highlight was the 60th anniversary of the ISL, which provided the event with a festive framework and which was commemorated on the evening of the first conference day with a reception by the Senate of the Free Hanseatic City of Bremen via the Senator for Education and Science.

In 1954 the Foundation for the Institute of Shipping Research was established through a resolution by the Bremen Senate, tasked with conducting scientifically based research in the field of shipping within the Hanseatic City. The ISL Maritime Conference, which has been held in Bremen every two years since 2008, has a long history and is entirely within the tradition of earlier Liner Shipping Conferences that were organised by the ISL in the 70s and 80s and which even then constituted a fixed date for those in the maritime industry, science and politics. Against this background the ISL welcomed its guests to the Maritime Conference 2014 in the Bremen historic town hall, at the very place where the cornerstones for the current Institute of Shipping Economics and Logistics had been laid.

» www.isl.org/conference
The core competencies of the Information Logistics department lie in its client-oriented support during both the construction and operation of logistics services through information technology solutions, in both the strategic and operative fields of transport economics. Specialist knowledge regarding characteristic management processes, efficient project administration and up-to-date know-how form the basis of products, services and innovative research in the field of logistics information and simulation technologies. In addition to technical solutions, other aspects such as rules and physical processes are observed and analysed within the projects. In particular, there has been an increasingly strong focus on the field of security research.

Selected projects and activities in 2014 were:

**INFORMATION TECHNOLOGIES IN INTERMODAL TRAFFIC**

With the EU project *e-freight - European e-Freight Capabilities for Co-modal Transport* the ISL successfully concluded its task of defining a standard transport document (Single Transport Document) for all carriers. The final results were demonstrated and validated in a pilot scheme with the ACOS group. The project concluded with an extension in March 2014.

The main aim of e-freight was the development of a standardised system for freight information exchange between all carriers and all participants. The project team's agenda included, in addition to the Single Transport Document, a Single Window System (Single Access Point) for operational processes, unified border crossing operations in all EU member states, and the necessary infrastructure for the creation of safe and efficient transport corridors between Europe, the USA and Asia.

» [www.isl.org/research](http://www.isl.org/research)  
» [www.efreightproject.eu](http://www.efreightproject.eu)

The project *iPort - Optimising Intermodal Freight Transport through European Ports*, funded by the European Space Agency (esa), also belongs in this research area. A feasibility study was prepared for iPort on whether the truck inflow to the container terminal Liverpool could be optimised through satellite based services. The ISL was tasked with investigating both the demand as determined in Liverpool and the transferability of the solution to other ports using Bremerhaven as an example.

Following on from this at the end of 2013, *iPort II* now focuses the development and marketing of satellite based services for the transport industry. In cooperation with dbh Logistics IT AG the ISL is tasked with the determination of synergies with the SMART SC project, the appropriate development of the Supply Chain Event Management System, and the development of satellite-based solutions for logistics optimisation in hinterland transportation with the examples of Bremerhaven and Wilhelmshaven.

» [www.isl.org/research](http://www.isl.org/research)  
» [iap.esa.int/projects/transport/iport](http://iap.esa.int/projects/transport/iport)

Furthermore, the project *OPTIBAHN - IT-supported Optimisation of Port Rail Processes in Bremerhaven*, funded by the BIS Bremerhaven Economic Development Company (Bremerhavener Gesellschaft für Investitionsförderung und Stadtentwicklung mbH), was conducted. Rail transports, primarily of containers or vehicles, are
an important factor in hinterland transport to and from German maritime ports, however these require a high level of coordination due to the large numbers of participants in the transport and transhipment processes. Although the data inherent in these processes are already partially transmitted electronically between the participants, during the course of daily operations there are invariably information deficits and gaps in procedures. The low capacity in the railway infrastructure of most ports makes efficient use unreachable. The aim of OPTIBAHN was thus to create a foundation to decrease existing deficits and to establish uniform standardised data communication between stakeholders, so that disturbances in operational procedures are reduced and an efficient use of the existing infrastructure can be achieved.

www.isl.org/research

AUTO-ID AND SECURITY IN CONTAINER TRANSPORT

The ISL successfully concluded the EU Commission’s 7th Research Framework project CASSANDRA - Common Assessment and Analysis of Risk in Global Supply Chains in spring 2014. In CASSANDRA the emphasis was placed on the needs and demands of heightened security in international container transport movements both by companies and by public.

In order to improve traffic across countries with respects to border control and trade regulations, while still retaining a high level of security, the project specifically focused the transparency of the supply chain. The aim of CASSANDRA was to achieve an increase in security through the optimal visibility of existing information. To this end 26 partners from ten different European countries concentrated jointly on electronic data traffic, in order to develop a new Data Sharing concept based on a risk-based approach for businesses and authorities. The effec-
tiveness of controls increases when one can concentrate exclusively on container movements that have the inherent potential for greater risk, while more trustworthy transports can be handled more quickly and more cost effectively. The opportunity to expand the evaluation of risk thus optimises security demands on the transport chains.

In order to efficiently exchange secure and trusted data over the whole supply chain, all participating logistics and IT businesses, customs and border authorities as well as various bodies at the ports must be brought into unison. This project’s most important innovation is thus the development of a Data Pipeline for the exchange of information along the supply chain, in order to enable open, flexible and standardised communication. In addition, interfaces supporting businesses and customs with regards to risk management and transparency in supply chains have been implemented. A further important component in CASSANDRA is the piggy-back principle. Within the framework of risk management, businesses can share supply chain data, while the same data from government bodies may be optimally reused. Existing data lines and data pathways were investigated as examples by what is known as Living Labs for the three global trade routes of China-Europe, Europe-USA and Europe-Africa. In Living Lab Europe-USA the ISL, together with the Bremen Senator for Economy, Labour and Ports and dbh Logistics IT AG, analysed the data traffic in the container terminal of Bremerhaven. Particular attention was paid to data accuracy and the restrictions to businesses concerning data exchange and data security.

» www.isl.org/research
» www.cassandra-project.eu

The project CORE - Consistently Optimized Resilient Secure Global Supply Chains, from the last announcement of the 7th Research Framework Programme of the EU Commission, began in May 2014 and will run for four years. CORE is one of the largest European research and demonstration projects so far. Around 70 partners aim
to show that innovations in security and transparency in the supply chain, as researched and developed in earlier projects such as CASSANDRA and INTEGRITY, also have practical applicability.

CORE is supported to a great extent by a number of EU general directorates, especially DG ENTERPRISE (security politics), DG TAXUD (customs risk management and security politics), DG MOVE (e-freight politics) and DG JRC (scientific support for political implementation). Operative administration comes under an executive committee drawn from the European Shippers’ Council (ESC), the Netherlands Organisation for Applied Scientific Research (TNO) and the BMT Group.

A number of improvements can still be achieved in cross-border transactions with third countries. For example, unexpected delays during export and import can mean the difference between the successful execution of a contract and a disaster. Within CORE the partners have committed themselves to pursuing the maximisation of speed and reliability as well as the minimisation of costs within the framework of global trade transactions, so that supply chains can become more transparent, more resilient and offer more security at the highest level. In order to achieve this ambitious goal, this project will focus various demonstrators for the transport of cargo corresponding to different demands of conformity within the trade, to various carriers, and in various geographical areas. In many demonstrators the determination of high quality data along the transport chain and enabling of data exchange is a challenge. Yet precisely this would provide businesses along the supply chain with better control over their risks and an optimisation of their processes. On the opposing side, controlling authorities such as customs can improve their risk analysis, offering opportunities for alternative monitoring methods (which, at the same time, reduces the need for physical cargo controls). With an eye on co-modality and carbon footprint optimisation, CORE also contributes to sustainable transport operations.

In the field of global supply chains, particularly those involving public bodies, innovative solutions require close cooperation. In CORE industry representatives, border control authorities, governments and scientists cooperate in the search for practical solutions. In contrast to many earlier projects CORE will concentrate on the demonstration of how these practical solutions may be implemented within current legislative frameworks and these results will provide impulses for the design of future jurisdiction.

The tasks of the ISL within the framework of this project are, among others, the analysis of reference...
projects and the definition of a supply chain security reference framework. The development and testing of a scenario-based simulation for complex supply chains continue to be at the forefront of this project. Thus it is possible to simulate the effects of disturbances and risks to the supply chain without intervening in real scenarios.

» www.isl.org/research
» www.coreproject.eu

OFFSHORE WIND ENERGY LOGISTICS

The field of Logistics for Offshore Wind Energy Facilities faces interesting logistics challenges that are the result of specific influencing parameters in supply chain control. These can include schedule changes due to meteorological influences or shortages due to scarce or costly resources. In order to determine the consequences of disturbances to the supply chain and to evaluate these with reference to achieving logistics objectives and resource use, the ISL possesses a simulation tool with which the whole maritime and onshore logistics chain can be visualised.

The economic findings reflect an improvement in both planning and transparency of logistics processes and the estimation of project risks. Supplier’s production and transportation processes as well as the inbound, outbound and transhipment processes in ports can be simulated while taking cost, time, disturbances and shortages into account. This tool is continuously being developed for various operative and strategic aspects and has already been successfully applied in conjunction with business partners of offshore wind parks in the North and Baltic Seas.

The project OWISS - Offshore Wind Energy - Safety and Protection, which began at the end of 2014, will also build bridges to security research. Wind turbines spin in German offshore wind energy parks right at our coasts,
however this is also where many dangers lurk: natural disasters, accidents, disturbances or attacks can all threaten safe energy supply.

Within the framework of OWISS the ISL and various partners from the region are examining how disturbances to offshore wind energy parks can be avoided or minimised. OWISS, which is funded by the Federal Ministry for Education and Research under the auspices of the programme “Research for Civil Security” with approximately 2.5 million Euros, will run for three years. In addition to the ISL the consortium comprises the Deutsche Offshore Consult GmbH (DOC), the Fraunhofer Institut für Fertigungstechnik und Angewandte Materialforschung (Fraunhofer IFAM), the Institute for the Law of the Sea and International Marine Environmental Law (ISRIM) as well as two institutions of the University of Applied Sciences in Bremerhaven: the Institute for Wind Energy (fk-wind:) and the Institute for Safety and Security Studies (ISaSS).

The minimal goals of the energy concept put forward by the Federal Government see an increase in the proportion of renewable energy sources from 35 percent in 2020 to 80 percent in 2050. Offshore wind energy is to constitute a high proportion of this. Taking into consideration the rising importance of energy supplied by offshore wind parks and, connected to this, their performance growth, OWiSS now aims to increase safety in this field. This mainly involves investigating offshore wind park operations as well as the upstream and downstream areas within the life cycle.

The investigations of the ISL focus on logistics and information technical processes during operation and regarding further utilisation possibilities of offshore infrastructures. The sources of potential threat scenarios are considered as well as the development of new and improved concepts to be integrated into existing preventative and reactive measures. The effectiveness of these measures is investigated under the application of project-specific expanded simulation models.

» [www.isl.org/offshore](http://www.isl.org/offshore)

» [www.owiss.de](http://www.owiss.de)
OPTIMISATION AND SIMULATION

The Competence Centre for Optimisation and Simulation in Bremerhaven is involved in many projects across departments, for example in the simulation of logistics processes in a supply chain or at a container terminal, in the virtual mapping of processes within a freight village or logistics centre or in the consideration of logistics chains of offshore wind facilities. It also develops simulation models which can model present and future developments in shipping traffic and visualise potentials and bottle neck situations on waterways and in ports. In addition to traffic movements, vessel emissions can also be simulated. Strategic simulation approaches regarding operative planning are also increasingly being developed.

Virtual terminals and equipment emulators are another important area in optimisation and simulation. This software, developed by ISL for the optimisation and simulation of container terminals, is distributed by ISL Applications GmbH as CHESSCON. CHESSCON is available in a number of individual versions, such as CHESSCON Capacity for the planning of terminal capacities, CHESSCON Simulation for the planning and optimisation of the layout and processes of a terminal, or, based on the research project ViTO, CHESSCON Virtual Terminal for the testing and optimisation of new strategies for Terminal Operating Systems (TOS).

CHESSCON Virtual Terminal virtually tests and simulates strategies for in-built IT systems for equipment control in a terminal - thus without disturbing operations and with a high level of risk minimisation. The computer simulates a complete and realistic container terminal with all the equipment and their movements and the layout. The simulation has the same interface with the TOS as the real container terminal. This guarantees compatibility with the TOS developed by NAVIS, the global market leader in this segment.

Further products are being developed that offer support for the daily workings at a container terminal: CHESSCON Shift Preview allows a quick simulation of the updated planning in steering systems, in order to recognise potential shortages or over-capacities even before the start of the shift. CHESSCON Yardview enables the three-dimensional visualisation of the terminal, whereby the existing containers can be filtered according to arbitrary parameters.

In 2014 the technical University of Tallinn and the world’s largest terminal operator PSA - Singapore were added to the ISL Applications GmbH list of existing CHESSCON clients (Eurogate and NTB - Germany, Transnet - South Africa, ICTSI - The Philippines, Middle and South America). The clients are continuously assisted with ongoing service contracts.

» www.isl-applications.com
» www.chesscon.com
SUPPLY CHAIN EVENT MANAGEMENT

The major field of research Supply Chain Event Management (SCEM), can be, similar to that of Optimisation and Simulation, considered cross-institutional and plays an important role in many of the areas already mentioned, such as the process optimisation of transport chains regarding logistics in such projects as SMART SC or iPort II, as well as regarding security in projects such as CASSANDRA or CORE. Furthermore, the SCEM approach is relevant regarding the logistics for offshore wind facilities.

FURTHER DEVELOPMENT AND MAINTENANCE OF OPERATIVE IT SYSTEMS

The software and simulation systems currently in use, LOMIS, KODISC, MODITO, SCUSY, CAPS, IYCAPS and MeGa were expanded, modified or migrated to new software platforms according to the demands of clients as part of changing professional or legal requirements. Additional development and maintenance of these systems is performed by ISL Applications GmbH.

New disposition software is currently being developed for STUTE logistics (AG & Co.) KG under the name iTL|dispo, based on a dispersed multi-agent system and in cooperation with ISL Applications GmbH. As the software takes on automised, or partially automised, planning and controlling tasks it should unburden dispatchers and support decision-making through the provision of additional information. The industrial project iTL|dispo connects directly to the results of a research project conducted between 2008 and 2011, AMATRAK. AMATRAK was able to deliver important contributions to flexible, cost-effective and traffic-avoiding optimisation of tour planning for logistic service providers, and thus provided sustainable logistics through intelligent traffic concepts. This corresponds to the leading ideals of the ISL, ensuring sustainable transfer of research results into the practice.

INNOVATIONS IN LOGISTICS

In this research field the project LOGINN - Logistics Innovation Uptake from the 7th Research Framework Programme of the EU Commission deserves particular mention.

LOGINN focuses the implementation of initiatives developed by European research. The aim of this project is to bridge the gap between pilot programmes and market-ready solutions through the support and coordination of research and development projects in the area of logistics. In previous decades research projects have developed innovative solutions to increase efficiency in transport logistics, however these have often not been comprehensively implemented. This project should first examine the reason for shortfall and then develop instruments that can drive the marketing of innovative solutions that increase efficiency in transport logistics.

As a part of this project LOGINN has developed a platform that will ease and support the cooperation of the most important players in logistics (industry, small and medium enterprises, authorities, investors and research institutes). The so-called Logistics Arena will promote the commercial introduction of logistics innovations.
The ISL InfoCenter is a leading European service provider for information and documentation covering all aspects of the maritime industry and logistics. It provides a professional range of services and consultation on sectors, markets, and companies in the following industries:

- Shipping, shipbuilding and ports
- Transport and logistics
- Economy and trade

The range of offers includes contractual research, elaboration of customized client profiles, full text service as part of the copyright or the provision of information and personal consulting on all aspects of ISL’s online and reference resources. When they do their work in this regard, our employees place a high priority on the quality and completeness of the technical information which they compile. They are happy to provide offers for customized, topic-oriented research and information services. In addition to the comprehensive resources available to ISL, the research activities can also incorporate external sources of information.

The ISL Library in Bremen, which has existed since 1954, is one of the largest specialist scientific libraries covering maritime logistics. In addition to the purchase of reference books, the library also focuses its acquisition activities on market studies, research reports, conference proceedings, economics statistics, annual reports, as well as shipping registers. Moreover, the library also stocks around 230 current journals and technical magazines. In addition, digital publications are also now playing an increasingly important role as part of the acquisition of an e-library. The library has a total stock of more than 130,000 volumes (as at: January 2015), including 32,000 monographs and 31,500 annual publications. A new acquisition list is prepared every quarter to document the new additions to the library.

A comprehensive range of e-books was added to the library services in 2013. Rooms in the library can be used to access over 80,000 e-books provided by the service provider E-Book-Library EBL. The general public have free access to the library with its reading room and online workplaces from Tuesday to Thursday 9:00 to 16:30.

Another important module is the ISL SEABASE which functions as an online catalogue as well as a reference database. The catalogue lists the stock in the library and contains around 124,000 documents (as at: January 2015), and is thus an important research source which provides systematic access to the logistics know-how required by the maritime industry, as well as serving the needs of research and teaching. All of the new acquisitions made by the ISL Library are registered and summarized. In addition to reference books, it also takes into consideration market studies, research reports, conference proceedings, economics statistics, as well as annual reports. Articles from around 230 national and international journals are selectively evaluated according to relevance, and are also entered into the database. SEABASE also provides increasing access to full-text digital media available within the framework allowed by copyright laws. The list of references grows annually by around 4,000. The old stock (prior to 1984) can be researched via a card catalogue within the library itself.

» www.isl.org/infocenter  » www.isl.org/library
» www.seabase.isl.org
**ISL InfoLine** supplements the information we offer by numerous publications which are made available by the **ISL Webshop** as print or online versions.

The statistical publications concentrated again in 2014 on the international specialist publications **ISL Shipping Statistics Yearbook (SSYB)**, **ISL Shipping Statistics and Market Review (SSMR)** which is published nine times a year, and **ISL Monthly Container Port Monitor (MCPM)**.

SSYB and SSMR are recognized worldwide as standard works of reference for the maritime industry, and are subscribed by technical experts in over 40 countries. The way the data is prepared and analysed is specially adapted to the information needs of shipping companies, shipyards, port companies, agents, banks, consulting companies, as well as research institutions.

SSYB contains over 400 pages covering market information, comments and development trends in the shipping and shipbuilding markets, as well as global sea ports and marine canals.

SSMR looks at nine key aspects: World Merchant Fleet, World Tanker Market, World Bulk Carrier Market, World Container and General Cargo Shipping, World Merchant Fleet by Ownership Patterns, World Passenger and Cruise Shipping/ISL Cruise Fleet Register, World Shipbuilding and Shipbuilders, Major Shipping Nations and World Seaborne Trade and World Port Traffic. Every issue provides comments on the development of the key topics, as well as providing information and an overview on the most important supply and demand indicators in each of the markets. Furthermore, a detailed statistical analysis and assessment of the markets is covered. In addition, each issue of SSMR contains an ISL Market Review which presents the latest market trends on the basis of early indicators. These are: Economic Indicators, World Merchant Fleet, Freight and Charter Market, Shipping Prices and Costs, World Shipbuilding and Development of Major World Ports.

The MCPM is the ideal tool for monitoring the latest developments in the container transport market. It enables players in the container shipping markets to compare their own performance with the latest regional and global trends.

In addition, via its ISL InfoLine portal, ISL can undertake a range of customized searches. The basis for this is the **ISL Port Database** - which is one of the most comprehensive databases worldwide for transhipment information.

» [www.isl.org/infoline](http://www.isl.org/infoline)

» [https://shop.isl.org](https://shop.isl.org)
PUBLICATIONS


NOBEL, T.: Für Güterverkehrszentren ist Klimaschutz längst kein Modethema mehr, in: MoWin.net - Mobilitätswirtschaft...


PETERS, L.: In der Coopetition - Vernetzung in Bremen schon sehr weit fortgesritten, in: Metropolneur, Nr. 1, Bremen, 2014, S. 74-75


LECTURES & EVENTS

01. November 2013
HAASIS, H.-D.: 3th International Conference on Integration - Achievements and Emerging Issues, Vietnam University of Commerce, Hanoi

07.-08. November 2013
ARENDT, F.: Logistics in 2030 - Challenges and Way Forward, Logistics Conference, Brüssel

08. November 2013
LEMPER, B.: „Auswirkungen von höheren Treibstoffkosten auf die Seeschifffahrt und den Welthandel“, CDU Hafensprecher, Bremen

11.-12. November 2013
ARENDT, F.: Die Deutschen und die Sicherheit - Gesellschaftliche Konstruktionen, Workshop Forschungsforum Öffentliche Sicherheit, Berlin

12. November 2013
LEMPER, B.: „Aktuelle Trends in der Containerschifffahrt und Perspektiven für die Bremer Häfen“, DVWG Deutsche Verkehrswissenschaftliche Gesellschaft, Bremen

14. November 2013
KLEIN, O.: „e-Freight: Mehr Transparenz, Verkehrssicherheit und Bürokratieabbau oder alter Wein in neuen Schläuchen?“, Thementag Binnenschifffahrt und Wasserstraßen 2.0, Verein für europäische Binnenschifffahrt und Wasserstraßen e.V., Duisburg

19. November 2013
ARENDT, F.: „Entwicklung einer hafenübergreifenden Import-Plattform“, Sitzung des Deutschen Seeeverladekomites (DSVK) im VDI, Berlin
19. November 2013

25. November 2013
HÜBSCHER, A.: „LNG - Flottenentwicklung, Infrastrukturausstattung und Transport“, ISL Förderkreis, Bremen


03. December 2013
MEYER-LARSEN, N.: Für die Erde ins All - Transport & Logistik - Herausforderungen und mögliche raumfahrtbasierte Lösungsansätze, Workshop European Space Operations Center (ESA/ESOC), Darmstadt

06. December 2013
HAASIS, H.-D.: „Nachhaltige Produktion und Logistik“, Wirtschaftsuniversität, St. Petersburg

16. December 2013

17. December 2013
LANDWEHR, T.: “Smart Supply Chain - Effizienter und intelligenter Containertransport von und zu den deutschen Seehäfen“, 3. Regionalkonferenz Logistik, Bremerhaven

18.-20. December 2013
HAASIS, H.-D. / DOVBISCHUK, I.: „New Logistics Trends in Germany“, Workshop and Visit of School of Logistics and Supply Chain, Naresuan University, Phitsanulok

20. December 2013
LEMPER, B.: „Neujustierung der Containerumschlagsprognose für Hamburg“ Presserunde, Hamburg

January 2014
SCHÜTT, H.: „Der Containerterminal der Zukunft - Automatisierung und/oder Mensch?“, Nautischer Verein zu Bremerhaven

24. January 2014

06. February 2014
MACKENTHUN, F. / NOBEL, T.: „Freight Villages as International Hidden Champions“, Besuch des Türkischen Ministeriums Customs und Trade, Bremen

06. February 2014
ARENDT, F.: „Improved Integration Of Inland Waterway Transport into Logistics Chains - Value Added RIS Services - Results from the RISING Project“, DaHar - Danube Inland Harbour Development Conference, Novi Sad

07. February 2014
LEMPER, B.: „Prognose für Kreuzschifffahrt im Hafen Hamburg“ Haushaltsausschuss des Senats, Hamburg

10.-11. February 2014
SCHÜTT, H.: „Enhancing Terminal’s Efficiency with Simulation Based Virtual Terminals“ Container Handling Technology Turkey Conference, Istanbul

11. February 2014

12. February 2014
HAASIS, H.-D.: Chairman, Session on Regional Policies, 4th International Conference on Dynamics in Logistics LDIC 2014, Bremen

12. February 2014
KLEIN, O.: “Business Process Analysis with BPMN“, EPCSA Workshop, Hamburg

12. February 2014

12. February 2014
MEYER-LARSEN, N. / BAALSRUD HAUGE, J.: “Improving the Understanding of Supply Chain Interaction and Security Issues among Students through the Application of Business Games“, Session on Learning and Education in Logistics, 4th International Conference on Dynamics in Logistics LDIC 2014, Bremen

12.-13. February 2014
DOVBISCHUK, I.: International Workshop and Dialogue Event on Intermodal Transport Planning, INTRAREGIO, Bremen
17.-24. February 2014
HAASIS, H.-D. / DOVBISCHUK, I.: “Logistics Orientated Port Cooperation - Sharing of Profit, Costs and Risk”, Travelling Conference on Reliable Hinterland and Efficient Seaports - Cooperation in Education and Research between Germany, China and Vietnam, Transport University, Ho Chi Minh City / National Economic University, Hanoi / Jiao Tong University, Shanghai / Polytechnic University, Hong Kong

25. February 2014
NOBEL, T.: „Klimaanpassung (-schutz) in der Logistik und im Logistik-knoten Güterverkehrszzentrum (GVZ) Bremen”, CLARR 2014 - International Conference on Regional Climate Adaption and Resilience towards Climate Adapted and Resilient Regions, Bremen

11. March 2014
ARENDT, F.: “ISL - Research in Maritime Logistics”, PLACES Workshop Bremerhaven

12. March 2014
LANDWEHR, T.: „Smart Supply Chain - Effizienter und intelligenter Containertransport von und zu den deutschen Seehäfen“, Fachvortrag, CeBIT Fachmesse 2014, Hannover

20. March 2014

27. March 2014

31. March 2014
JAHRESEMPFANG 2014 anlässlich der Gründung des Instituts für Seeverkehrswirtschaft und Logistik vor 60 Jahren, ISL Bremen

April 2014
SCHÜTT, H.: „Simulation für Containerterminals - Hintergrund, Einsatz, Anwendungsbeispiele“, Seminar zu Simulation für Containerterminals, Shanghai

April 2014
SCHÜTT, H.: „CHESSCON Overview“, Vorstellung des ISL, der Hochschule Bremerhaven und CHESSCON an der East China Normal University (ECNU), Shanghai

07. April 2014

08. April 2014
HAASIS, H.-D.: „Nachhaltiges Clustermanagement“, AWV-Arbeitskreis, Frankfurt

12. April 2014
HÜBSCHER, A.: „Nachhaltigkeit in der Schifffahrt?“, Vortragsreihe Wissen um 11, Haus der Wissenschaft, Bremen

14.-17. April 2014

14.-17. April 2014

14.-17. April 2014

16. April 2014

17. April 2014
HAASIS, H.-D.: “Global Trends on Shipping and Logistics Industry”, Global Ocean Leaders Roundtable, KMI Korean Maritime Institute, Seoul

25. April 2014
HAASIS, H.-D.: “Logistikcontrolling”, State University on Finance and Economics, St. Petersburg

28. April 2014
HAASIS, H.-D.: Keynote und Chairman, Panel on Green Logistics, 2nd German-Arab Logistics Forum, EMA Euro-Mediterranean Association for Cooperation and Development, Hamburg

28.-29. April 2014

06. May 2014
HAASIS, H.-D.: „Nachhaltiges Clustermanagement“, Wissenschaftszentrum, Bonn
06.-08. May 2014
LOGISMED 2014 - Salon International du Transport et de la Logistique pour la Méditerranée, Fachmesse in Kooperation mit der Deutschen IHK Marokko, Casablanca

13. May 2014
TASTO, M.: „Supply and Demand in ECA Markets“, Seminar LNG in Practice II, an Bord der MS Viking Grace

14. May 2014

14. May 2014
LANDWEHR, T.: Live-Präsentation des SMART SC-Demonstrators, M-Days Messe, Frankfurt

15. May 2014
LEMPER, B.: „Umschlagpotenzialprognose - Ursprünglicher Ansatz und Neujustierung 2013“, DVWG Deutsche Verkehrswissenschaftliche Gesellschaft, Hamburg

19. May 2014

19.-20. May 2014

21. May 2014
ARENDT, F.: „Sicherheit für Transport und Logistik - technisch oder sicherheitspolitisch lösbar?“, Workshop Deutsche Atlantische Gesellschaft, Bremen

22. May 2014

26. May 2014
NOBEL, T.: Freight Villages as International Hidden Champions, Delegationsbesuch Belo Horizonte/Brasilien, Bremen

02. June 2014
HAASIS, H.-D.: Moderation, Alternative Entwicklungen in den bremischen Häfen 2025, Industrie-Club, Bremen

02.-27. June 2014

03. June 2014
HAASIS, H.-D.: Moderation 7th Mediterranean Ports Summit
MEYER-LARSEN, N.: “I-Port - Satellitengestützte Optimierung intermodaler Güterverkehre in Europäischen Häfen” ESA IAP Roadshow, Bremen

KRAMER, H.: “Best Practises in Modal Shift Actions”, Port Workshop, Gijon Port Authority, Gijon


SCHÜTT, H.: “Improving Operational Intelligence by Use of Virtual Terminals”, 12th ASEAN Ports and Shipping 2014 Indonesia Exhibition and Conference, Jakarta

HAASIS, H.-D.: “Urban Logistics - The European Perspective”, 1st Nanning International Logistics Week, Nanning

DOVBISCHUK, I.: “Cluster Management and Regional Development”, 1st Nanning International Logistics Week, Nanning


TASTO, M.: “Case Study - Shipping Markets”, Training Seminar on
Port-related Economics and Logistics for the Department of Ports and Maritime Transport of the Saudi Arabian King Abdulaziz University Jeddah, ISL Bremen

23. June 2014

23. June 2014

SCHÜTT, H.: “How to Enhance Operational Intelligence at Your Terminal?”, Seminar, TOC Container Supply Chain Europe Conference and Exhibition, London

25. June 2014
HAASIS, H.-D.: “Modal Split from Land to Water”, Green Freight and Logistics in Asia - Delivering the Goods, Protecting the Environment, Workshop ADB / GIZ, Singapur

03. July 2014
ARENDT, F.: „Das Forschungsprojekt CORE und seine Vorgeschichte“, BMVI-Arbeitskreis Sicherheit in der Logistik, Berlin

03.-04. July 2014
PETERS, L.: Bremer Logistiktag 2014, Konferenz und Fachausstellung, Bremen

04. July 2014

08. Juli 2014
MEYER-LARSEN, N.: „Kooperation von Wirtschaft und Wissenschaft am Beispiel aktueller Sicherheitsforschungsprojekte des ISL“ BHV Hafenclub, Bremen

05. August 2014
ARENDT, F.: „Sicherheit für Transport und Logistik - technisch oder sicherheitspolitisch losbar?“ Workshop Deutsche Atlantische Gesellschaft, Frankfurt/Main

05.-06. August 2014
LEMPER, B.: „Development of Ferry Boat Routes in Northeast Asia - Utilizing European Examples of Regional Connectivity“, Second Meeting of GTI NEA Local Cooperation Committee, Yonago City

19. August 2014
HÜBSCHER, A.: „Nachhaltige Seeschifffahrt - Bisherige Maßnahmen, Technische Möglichkeiten, verabschiedete Rechtsanforderungen, zukünftige Visionen“, Rotary Club Osten, Bremen

27.-29. August 2014

04. September 2014

08.-11. September 2014

11. September 2014

16. September 2014
### ACTIVITIES 2014

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<td>02. October</td>
<td>ARENDT, F.: Moderation, Session zu Einflüssen neuer Informati- und Kommunikationstechnologien auf die maritime Logistik, ISL Maritime Conference 2014, Rathaus Bremen</td>
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<td>09. October</td>
<td>LANDWEHR, T.: „Smart Supply Chain - Effizienter und intelligenter Containertransport von und zu den deutschen Seehäfen“, Arbeitskreis Verkehr, Industrie- und Handelskammer Kiel</td>
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28. October 2014

28. October 2014
LEMPER, B.: „Bedeutung des internationalen Seeverkehrs für den Welthandel und für Deutschland“ Ringvorlesung Ozean im Wandel - Herausforderungen für die Zukunft, Kiel

30. October 2014

05.-07. November 2014

13. November 2014
HADER, A.: „Seeverkehrswirtschaft - Aktuelle Entwicklungen und Herausforderungen“, bremenports logisticstalk, Nürnberg

03. December 2014

LECTURE COURSES

UNIVERSITY OF BREMEN
Study courses: Economic Sciences, Business Economics and Engineering Economics

UNIVERSITY OF APPLIED SCIENCES BREMEN
Study courses: Shipping and Chartering, Ship Management, Nautics
LEMPER, B.: Principles of Maritime Economics

UNIVERSITY OF APPLIED SCIENCES BREMERHAVEN
Study courses: Integrated Safety and Security Management, Transportation/Logistics, Logistics Engineering and Management, Informatics
ARENDT, F.: Information Technology Processes and Systems, Logistics Processes and Systems

MEYER-LARSEN, N.: Logistics Processes and Systems
MÜLLER, R.: Logistics Processes and Systems, Software Engineering, Programming
SCHÜTT, H.: Hazard Potentials of Logistic Processes and Systems, Seaport Terminals
TASTO, M.: Transport Economics

JADE UNIVERSITY OF APPLIED SCIENCES ELSEFLETH
Study course: International Logistics Management
LANGE, K.: Offshore Wind Energy Logistics

SCHOOL OF INTERNATIONAL BUSINESS AND SUPPLY CHAIN MANAGEMENT (HIWL)
Study courses: Logistics, Logistics- and Process Management
LANGE, K.: Logistics & Production, Offshore Wind Energy

JACOBS UNIVERSITY BREMEN
Study course: Course Selection for Foundation Year Students
TASTO, M.: NatSciLab Logistics II + III

FRANKFURT SCHOOL OF FINANCE AND MANAGEMENT
Study course: Ship Financing
LEMPER, B.: Basics of Shipping Markets