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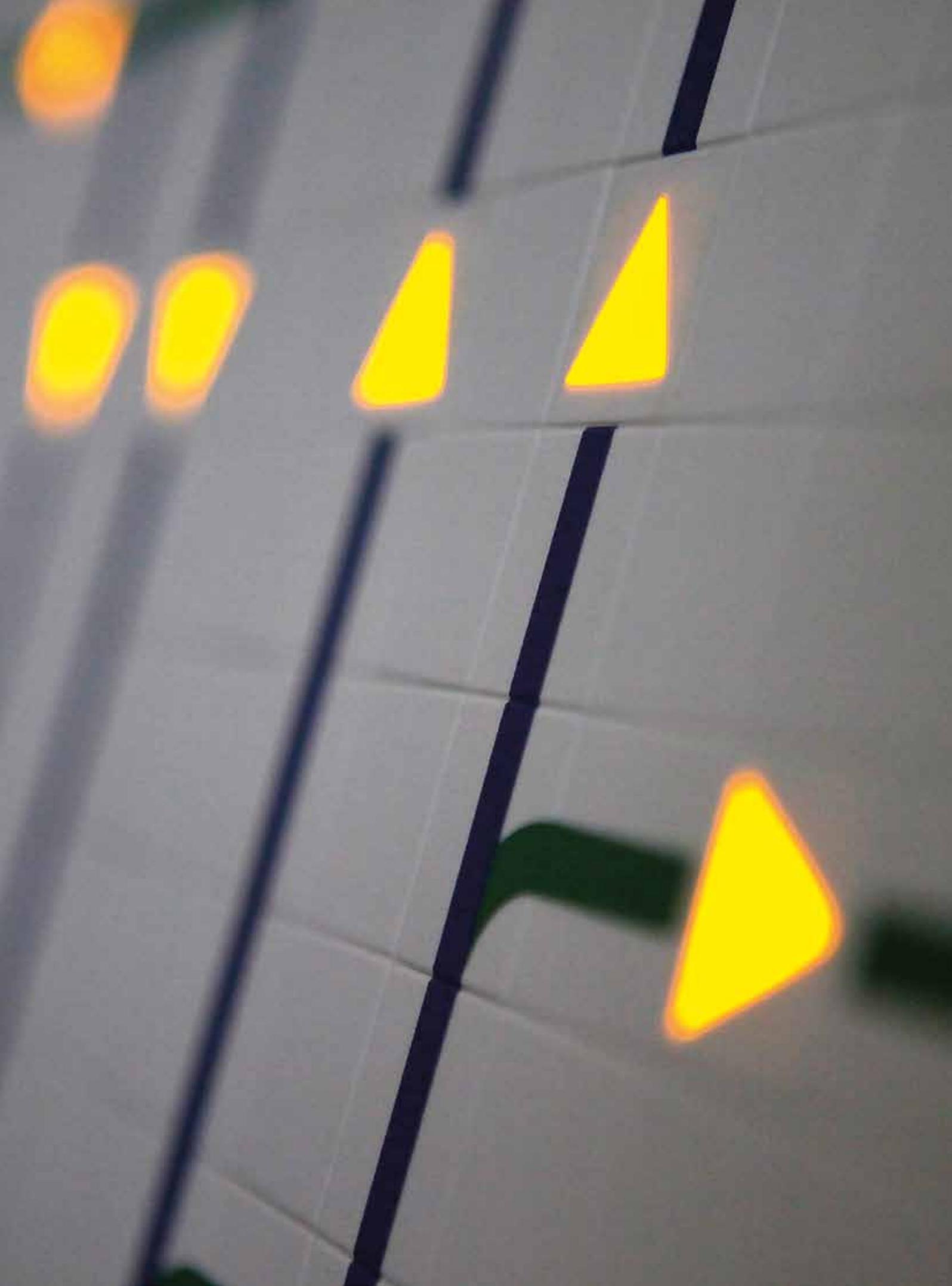
2015

SUPPLY CHAIN MANAGEMENT AND LOGISTICS – SUSTAINABLE CONNECTIONS
INSPIRATION | IDEAS | INNOVATION

2016

BVL  **International**
The Global Supply Chain Network

2017



THE TEN VIEWPOINTS AT A GLANCE

1

EUROPE AND GLOBALISATION

Going forward, Germany needs to maintain its status as a strong, reliable partner in Europe and one of the leading export nations. Supply Chain Management and Logistics are also a key factor in helping German producers succeed in this.

2

MOBILITY AND URBANISATION

Intelligent mobility solutions for people and goods provide ecologically efficient and socially responsible answers to changes in values and increasing urbanisation.

3

INFRASTRUCTURE

Infrastructure – as the foundation of German prosperity and outstanding economic performance – must be maintained and expanded in line with the times.

4

CLIMATE PROTECTION AND ENVIRONMENTAL AWARENESS

As a forerunner in environmental technologies, Germany should also take on a leading role in the development and implementation of ecologically efficient processes in the transport and logistics sector in Europe.

5

CHANGE IN ENERGY POLICY AND ENERGY EFFICIENCY

The change in German energy policy is to be seen and promoted as an opportunity for more independence and economic growth, and therefore job security.

6

SOCIETAL DEVELOPMENT

Societal developments are increasing the complexity of the way we live together, and therefore also the economic world. The challenge lies in managing this complexity and ensuring flexible but reliable control of mobility and goods flows.

7

EMPLOYMENT MARKET, EDUCATION, TRAINING

Education and training, two of the most important prerequisites for prosperity, innovation and competitiveness, must be expanded and modernised.

8

RESEARCH AND INNOVATION

Innovations are the expression of progress and sustainability. In future, they will continue to require the right environment, not only within companies and research institutes, but within politics and public budgets.

9

CRISIS MANAGEMENT AND SECURITY

Evaluating risks and managing crises: these are new challenges that the state and companies need to prepare for.

10

MARKETING AS A LOGISTICS HUB

Do good and talk about it: this also applies to Germany as a logistics hub. Entrepreneurs and politicians could do this more often and even better.

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SUPPLY CHAIN MANAGEMENT AND LOGISTICS –
SUSTAINABLE CONNECTIONS:
INSPIRATION | IDEAS | INNOVATION
VIEWPOINTS AND RECOMMENDATIONS FOR ACTION

With just under 11,000 members, BVL International is a voluntary association of experts and managers that form an international skill and knowledge network for supply chain management and logistics. Decision-makers from industry, commerce, the service sector and science have been using this platform for professional exchange – across all sectors – for more than 35 years. Fact-supported objectivity and political neutrality are the association's guiding principles.

BVL would like to present its viewpoints and recommendations for action for the 18th legislative period as a practical contribution to the public debate and to upcoming political decision-making processes. The focus is on Germany's prospects as an economic and logistics hub. Supply chain management and logistics, intelligent planning and control of value creation chains are some of the German economy's strengths. With varied areas of activity in industry, commerce and services, logistics is an economic heavyweight in Germany. In terms of turnover, logistics takes third place, after the automotive industry and commerce, but ahead of mechanical engineering and the chemical/pharmaceutical industry.

Based on the practical experience of its members and the analyses of its associated researchers, BVL encourages political decision-makers in Germany to maintain and expand framework conditions that will allow the potential performance of this economic sector to be fully utilised. Outstanding infrastructure in transport, data transmission and energy networks, streamlined regulatory frameworks and an investment-friendly environment all support industry and commerce in competing on an international level. In addition, they provide stimuli for the employment market and promote logistical solutions for combatting societal, economic and ecological challenges.

Logistics is one of the German economy's core competencies. We hope that our readers from the worlds of politics, administration, business and science will enjoy reading our viewpoints and recommendations for action. We would be delighted if our suggestions and ideas were taken on board and translated into concrete actions and innovations. Together we can further increase Germany's competitiveness as an economic hub on the international stage.

We look forward to engaging in discussion with you.



Prof. Dr.-Ing. Raimund Klinkner
President of the Board
at BVL International

I. LOGISTICS IS ...

“Logistics” means the holistic planning, control, coordination, implementation and monitoring of all internal and cross-company information and goods flows.

The term “Supply Chain Management (SCM)”, the intelligent planning and control of value creation chains, is used synonymously.

IN PRACTICE, LOGISTICS ENSURES, FOR EXAMPLE,

- that life-saving medication is available virtually everywhere in Germany and that stocks are replenished within just an hour of withdrawal,
- that a car factory gets the right seating unit – from 350,000 possible variants – for installation in 1,200 vehicles a day within four hours,
- that fresh goods are available to the supermarket customer at the right time, in the right quantity, and in the right place on the shelf – planned, temperature-controlled and undamaged,
- that around 60,000 retailers in Germany regularly receive their ambient, fresh and frozen products all at the same time thanks to multi-temperature vehicles with three variable zones,
- that 80,000 passengers a day manage to change planes at the international airport of Frankfurt/Main – with their luggage – even though they often only have 45 minutes in which to do so,
- that foundation structures weighting up to 900 tonnes are transported for an offshore wind farm.

II. PREAMBLE

With the position paper “Supply Chain Management and Logistics - Sustainable Connections Inspiration – Ideas – Innovation”, BVL International is calling for the German economy’s logistics skills to be publically perceived as one of the country’s strengths, and for these skills to be further expanded using political means. The implementation of the recommendations for action is essential for the success of German companies at home and abroad, for further growth in employment in the logistics sector, and ultimately for securing the prosperity of our society.

The new legislative period offers an opportunity to redefine priorities. With this position paper, the members and committees of BVL aim to convey their suggestions and ideas to current and future actors, and thus contribute to the formation of opinions. The paper addresses responsible persons in the political sphere from the fields of business, transport, the environment, finance, education and research, as well as anyone else interested in logistics. BVL is open to discussion with the world of politics and – based on its varied specialist knowledge across all sectors – sees it as its duty to support the political world in implementing its recommendations for action.

III. EXECUTIVE SUMMARY

Supply chain management and logistics are important foundations for Germany's competitiveness as a centre for industry and value creation. This applies to both global players and owner-run small and medium-sized enterprises. It also applies to their planning and control, from strategy to operative implementation. Logistics is the foundation of industrial production, the circulation of goods and cooperation between companies. Logistics is Germany's third-largest sector, after commerce and the automotive industry: it employs around 2.85 million people and generated some 230 billion euros in turnover in industry, commerce and the service sector in 2013.

With efficient value creation, high-performance logistics improves company results and optimises the use of resources. It promotes innovations and makes it possible to participate in global success, securing value creation, and thus jobs in Germany. Logistics makes it possible to combine economic, ecological and social matters. Going forward, Germany needs to maintain its status as one of the leading export nations and a strong, reliable partner in Europe. Logistics is a key factor for succeeding in this endeavour. Behind this is the conviction that, in today's world, sustainable operation and the responsible handling of Earth's natural resources are only possible with the help of innovative technologies and excellent organisation. Both come about through the interplay between research, innovative business, suitable national framework conditions and an open society.

Intelligent mobility solutions for all people and goods help combat changes in values and increasing urbanisation. As a forerunner in environmental technologies, Germany should also take on a leading role in the development and implementation of ecologically efficient processes in the transport and logistics sector in Europe. As part of the change in German energy policy, political decision-makers should pay special attention to German manufacturers of intralogistics/material handling technology as the largest branch of mechanical engineering: their energy-efficient logistics solutions are among the best in the world.

Societal developments are making our lives, and the economic world, more and more complex. The challenge lies in managing this complexity and controlling flows of people and goods in a flexible but reliable way. The top priority must be to maintain and expand infrastructure in line with the times, as this is the foundation of German prosperity and outstanding economic performance. In order to overcome the backlog in investment, to provide care and maintenance and also generate growth, the current annual spending on infrastructure for flows of people, goods and information needs to be doubled.

In the future, considerably more money should be drawn from various types of taxation revenue in the

Supply Chain Management and Logistics in Germany

Turnover and employees





transport sector (incl. vehicle tax, fuel tax) to finance this. What cannot be financed from the public coffers should be financed via user-financing tools, resulting in a long-term, specific infrastructure fund.¹

In addition, it is important to expand and modernise education and training as important prerequisites for prosperity, innovation and competitiveness. This includes educational standards, consistency of systems and lifelong learning that begins as early as nursery school.

Innovations are the expression of progress and sustainability, and will continue to require a reliable and planable environment, not only within companies and research institutes, but within politics and public budgets. In this respect, we urgently call for a research budget of 3 per cent of GDP to be made available.

The maxim “better to act proactively than react flexibly” means acting before disasters occur, using logistics principles. Evaluating risks and managing crises: these are new challenges that the state and companies need to prepare for.

BVL offers partnership and method transfers in this area. Holistic thinking and acting makes it possible to successfully shape economic processes in harmony with economic, ecological and social concerns, and without any specific ideology or orientation towards particular interests. What applies to the economy in general can also be applied to the interplay between politics and business: we must act together and across all areas, and work hand-in-hand to make things happen. BVL International makes its large network and concepts available, to help jointly and sustainably secure Germany’s global competitiveness.

Germany is among the best in the world when it comes to logistics, and needs to actively and effectively market this position both internally and externally in order to be successful on an international level with its top logistics services. The world of politics can explore new pathways by focusing on concepts such as service orientation, holism, outsourcing and networking. By affirming its increased orientation towards logistics, it can ensure the required acceptance so that Germany can secure jobs and create new ones. In order to be able to link up with existing logistics services and continue to utilise this scope of action in future, numerous measures need to be implemented. Convincing people of the value of logistics projects on both a factual and an emotional level is dependent on good contributions and creative ideas from all involved. We can contribute to this – each of us individually, but also several or all of us together. To this end, BVL has developed areas for work with recommendations for politics – opportunities for Germany that need to be seized in order to maintain growth and sustainable prosperity.

1 Report from the commission for “Sustainable Financing of Transport Infrastructure”, chair Kurt Bodewig, 30.09.2013

2 Federal Statistical Office 2013; Kille/Schwemmer: Top 100 der Logistik, 2013

3 Kille: Einordnung der Logistik in das Branchenranking Deutschlands, 2013

4 The World Bank: Connecting to Compete. Trade Logistics in the Global Economy, 2012

IV. WHAT DOES LOGISTICS MEAN FOR GERMANY?

Logistics is one of Germany's core competencies and supports excellent performance in economic as well as social and ecological terms. It is inextricably linked with corporate and societal processes. However, many of these links remain hidden in the general public's perception – most likely due to the multi-faceted nature and variety of topic areas covered by logistics. For a long time now, logistics has been an essential part of daily life in Germany.

The term "logistics" means the holistic planning and control of all information and material flows – with a considerable impact on results – and is synonymous with supply chain management. It covers division of labour, infrastructure, material, parts and system needs in industry, resource planning, timely delivery and full shelves in the retail trade. Logistics also includes material flows with handling, storage, picking and transport – within companies and worldwide, between companies and right to the end customer. Technology plays a large role in this, as automation, system integration, control, sensor technology and information technology are also involved in logistics.

Goods transport on different transport routes is a largely visible part of logistics services, but only makes up around a fifth of all national logistics services. The largest part of services is carried out within companies. This includes, for example:

- planning of production from procurement of raw materials, to the initial processing stages and final assembly, to dispatch of the completed product,
- realisation of comprehensive energy-efficient, and therefore resource-saving, value creation systems or
- systematic and methodical design of work tasks and working conditions within the logistics service industry.

These activities in the logistics sector are often not perceived by general society. Logistics becomes considerably more visible in everyday society when, for example, large-scale sporting events or concerts take place or when logistics provides support in the event of disasters. However, it could also be said that if everything is working as it should, logistics does not necessarily need to be visible to each individual.

In 2013, the logistics sector generated some 230 billion euros in turnover, with 2.85 million employees.² It is largely unknown that logistics represents the third-largest economic sector in Germany – in terms of turnover – after commerce and automobile manufacturing. Around half of performance is provided within the logistics divisions of industry and commerce, the other half by logistics service providers.³ The performance already achieved in logistics is also reflected in Germany's outstanding reputation as one of the highest-performing logistics hubs in the world⁴ – a title it has held for many years now. Logistics therefore also represents a forward-looking professional field that is now taught at over 100 universities and specialist institutions, that is intensively researched at numerous scientific institutions and that supports innovations in Germany.



State-of-the-art logistics is the foundation of efficient industrial manufacture, national and global division of labour, circulation of goods and cooperation between companies or organisations – and all of these areas are prerequisites for sustainable prosperity and the social market economy in Germany. Dwindling of resources, the change in German energy policy, increasing speed of change processes and increasing complexity in all areas of corporate and societal matters pose great challenges, but also represent new opportunities, for Germany's economy and society. Through evolutionary development, logistics creates solutions to problems and supports Germany in utilising these opportunities.

In this respect, it can be seen as a connective discipline and strategic factor for economic success. BVL sponsors the German Award for Supply Chain Management to promote the development of innovative concepts and the spread of specialist knowledge in logistics. The awardees clearly demonstrate the real significance of logistics as a competitive factor. Innovations are required not only in products and production technologies, but also in logistics. Leading companies manage to integrate these facets of performance.

AWARDEES OF THE GERMAN AWARD FOR SUPPLY CHAIN MANAGEMENT



GERMAN AWARD FOR
SUPPLY CHAIN MANAGEMENT

- 2013** **Lekkerland AG: Lekkerland logistics: focusing on customer orientation**
Innovative approach that makes it possible to supply to petrol station shops in one instead of three trips. The company uses specially developed multi-chamber vehicles for three to four temperature levels.
- 2012** **Merck KGaA: Packaging logistics at their best: innovative packaging processes**
Process-oriented approach allowing the company to work sustainably and in a customer-orientated manner with a large variety and different qualities of medicine packaging – from 50-litre glass bottles to nasal sprays.
- 2011** **Geberit Group with Geberit Logistik GmbH: Radical shake-up of group logistics**
Value creation-oriented approach allowing the company to manage the high variety of products from the gas/water/sanitary sector with a low carbon footprint and to always have the right part in the right place.
- 2010** **Nord Stream AG: Pipeline logistics**
Tailored approach for a large project, borrowing methods from series production: CO₂ emissions considerably reduced, permanent jobs created on site, consistent production without disruptions.
- 2009** **Würth Group: Modular logistics: the solution for multi-channel distribution**
Distribution-oriented approach with consistent customer orientation: regardless of the size of the customer's company, the assembly elements can be accessed in five different ways and made available at the site of use.
- 2008** **Deutsche Lufthansa AG and Fraport AG: Integrated passenger and luggage logistics at the Frankfurt aviation hub**
Cooperative approach between two companies that takes into account the factors of people, machines and weather. This ensures short change-over times with guaranteed luggage services.
- 2007** **Agricultural machinery manufacturer Claas KGaA mbH: The international Claas supply chain initiative**
Cross-border approach with interlinking of production and spare parts logistics. Despite great variety in products, this guarantees one hundred per cent availability of harvesters in permanent use.
- 2006** **BSH Bosch und Siemens Hausgeräte GmbH: Total customer logistics: the key to happy consumers**
Customer-oriented approach in spare parts logistics: the right spare parts for domestic appliances are delivered to end customers in Europe in less than two days.

V. CHALLENGES AND OPPORTUNITIES FOR THE ECONOMY, POLITICS AND SOCIETY

Regional differences and dynamic developments within the world economy, the changing needs of populations, increasing effort in securing competitiveness: these are just some of the challenges that companies and national economies face together. With their cross-sectional function, logistics has become one of the key factors for success in sustainably managing these challenges today and in the future – together with politics and society.

“Sustainable” means that the three dimensions of economics, ecology and social responsibility are covered. For economics, criteria such as efficiency and effectiveness, operating costs, energy consumption or efficient customer care are key. Ecological considerations include production-related raw material and energy consumption, equipment use, waste, operating emissions, packaging, transport, disassembly and disposal. Social responsibility involves, for example, health and safety, education and training standards, working conditions, as well as stimuli for development within regions.

Logistics makes it possible to combine these three dimensions, as the improvement of performance processes shaped by and with people contributes to using resources more effectively and efficiently. Logistics has involved an ecologically efficient approach for decades. Debates about climate change have ensured that even more attention is paid to the ecological dimension: logistics service providers are also stepping up their efforts in terms of environmentally compatible solutions. These are often associated with additional costs, which can be reduced through added efficiency. The third dimension – social responsibility – is an important component that is often overlooked. BVL highlights the fact that the people who work in logistics are important to it through numerous activities, where logisticians meet and share their experiences, by promoting education and training and by supporting humanitarian logistics in cases of natural disasters.

Many member companies of BVL – often family-run medium-sized enterprises, but also large corporate groups – share this view of sustainability. One example of this is the **Beumer Group**, one of the world’s leading manufacturers of material handling technology, which has anchored these three dimensions of sustainability in its mission statement, and operates according to it. As a member of Blue Competence, a sustainability initiative in the mechanical and plant engineering sector, the company agrees to be measured against the sustainability index in terms of implementation of the three dimensions, making it a role model for others.

This holistic view of sustainability is a fundamental principle for BVL, its committees and its acting members. The following ten main topics were brought together at BVL’s events and committee work at the 30th International Supply Chain Conference. They are based on the findings gained from top performance in supply chain management and logistics – in Germany, Europe and worldwide.



EUROPE AND GLOBALISATION

Going forward, Germany needs to maintain its status as a strong, reliable partner in Europe and as one of the leading export nations. Logistics is also a key factor in helping German producers achieve this.

POLITICAL POINT OF VIEW

“BVL’s clear approval of European unification is very encouraging. After all, Europe’s future course will be determined on 25 May 2014 at the European elections. Remembering that the EU means not only peace but also prosperity in our globalised world is very important in view of the current crisis. Our companies will not be successful if we fall back into regionalism. Instead, we need to achieve the ‘balance between economic competitiveness, environmental compatibility and cross-generational social responsibility’ called for by BVL. What we need to achieve this is a change in European transport policy that ultimately creates fair competitive conditions for all modes of transport, ensures affordable mobility and protects the environment.”



Michael Cramer
Bündnis 90/Die Grünen, speaker for transport policy for the Greens in the European Parliament

Germany’s economy benefits from European unity and the international exchange of goods. Germany participates in the growth and increase in prosperity of emerging countries and regions. German companies are expanding into new markets while stabilising at the same time their domestic growth.

In its report, the German Council of Economic Experts shows how export-led German value creation is, and how employment in the manufacturing industry is becoming increasingly dependent on exports in almost all sectors.⁵

At the same time, ever-present change means that competition between individual companies, mergers of companies, and, ultimately, between nations and continents, is increasing. Increased competition can bring uncertainty. As an export nation, Germany is particularly tied to the global economy, and relies on utilising the opportunities provided by globalisation and strategically combatting risks.

In future, Germany should continue to make efficient use of networking to utilise the opportunities of a unified Europe and a globalised world. This includes strengthening economic ties in industrial manufacturing – particularly with the growth regions of Brazil, Russia, India, China (BRIC), the USA and Canada (NAFTA) as well as Mexico, Indonesia, South Korea and Turkey (MIST) – without sacrificing value creation in Germany. This goal also covers the development of new markets through local German subsidiaries, in order to create trans-national value creation networks in Europe and worldwide.

Many German companies achieve success through such value creation networks. One successful example is the company **Claas**⁶ – a manufacturer of agricultural technology, such as harvesters – whose main production site in Germany works with other company sites in Europe, America and Asia to implement individual strengths in a challenging international competitive environment by means of modern logistics that are networked across the entire company, from procurement of materials and production, to sale of products. Here, logistics secures the company’s competitiveness and ability to grow further, and therefore to create jobs.

Audi⁷, as an example for all German automotive manufacturers, impressively demonstrates the role of logistics as a key factor for success in terms of the innovation strength and competitiveness of German companies. At the same time, this example clearly shows that the answers provided by intelligent logistics to the challenges of a global economy per se have a very holistic character. A consistently implemented logistics strategy – from the managing board down to the staff, and from the placing of

⁵ German Council of Economic Experts, 2004, p. 359: Die Entwicklung der Exporte: Weltmeister oder Basar? Excerpt from the Annual Report 2004/2005, figures 460 to 468 and appendix

⁶ Awardee of the 2007 German Award for Supply Chain Management from BVL International

⁷ Awardee of the 2012 Supply Chain Sustainability Award from BVL International

⁸ This includes ensuring equalisation of maritime transport and land transport under customs legislation, e.g. by means of the solutions proposed by the 2010 EU pilot project “Blue Belt”.

orders with raw materials suppliers down to the final delivery of the product to the customer – not only leads to success for the company, but also promotes ecologically sustainable solutions within the product and along the entire process chain. At the same time, it always considers the needs of the employees involved.

One of the world's leading logistics providers, the family-run company **Dachser**, shows how new European and international markets can be successfully developed and new jobs can be created in Germany through holistic and innovative logistics concepts. Automotive suppliers such as **ZF** show how high-performance logistics, along with innovative, high-quality products, are increasingly becoming a unique selling point within the international competitive environment. A high level of compliance with deadlines, the shortest possible reaction times for changes in situations of need and high process stability in conjunction with competitive overall costs are the result of consistent supply chain management, and guarantee success for ZF.

Logistics creates a balance between economic competitiveness, environmental compatibility and cross-generational social responsibility – in all areas of company networks. More acute political and societal awareness of German companies' need to adapt will continue to support them in delivering excellence in future.



BVL INTERNATIONAL RECOMMENDS:

- That the German government continues to take a positive view on European unity and globalisation, and communicates this both internally and externally.
- That competition-related political and regulatory decisions always be agreed in consultation with EU and international trade partners. Trade barriers should continue to be brought down – both in concrete terms and by means of a European internal market⁸ covering all modes of transport as well as a standardised customs environment and the free trade agreement between the USA and the EU.
- That globally active German logistics providers receive targeted political support in their efforts to expand into other countries, in order to be able to link up with existing services for the German economy and expand these. Small and medium-sized enterprises, in particular, are to be supported by setting up a financing fund: “Neue Deutsche Wirtschaft” (“The New German Economy”).
- That Germany's employment market be shaped flexibly. A reform of the welfare state is needed, transforming it from an opponent to a partner of the private sector, in order to avoid social dislocation. This particularly includes favouring wage subsidies over wage replacement benefits.

BVL supports its corporate members abroad by means of a transfer of knowledge, with an increasing presence in the form of chapters or representatives and partnerships with sister organisations.

MOBILITY AND URBANISATION

Intelligent mobility solutions for people and goods provide ecologically efficient and socially responsible answers to changes in values and increasing urbanisation.

POLITICAL POINT OF VIEW

“The internet will really change transport in Germany. I want to use new control tools to achieve intelligent transport management. Fuel tax should be replaced with a route-dependent, electronically charged fee. This means that individual citizens would be able to save money by driving in an environmentally-friendly and foresighted manner. Such an incentive system has been technically possible for a long time now. I also want us to become an international forerunner in car2infrastructure and car2car communication. The vision of a stop-free city centre could be realised by linking up traffic control units, traffic lights and vehicles. I am for open data and would like to speed up innovations for apps in the transport sector.”

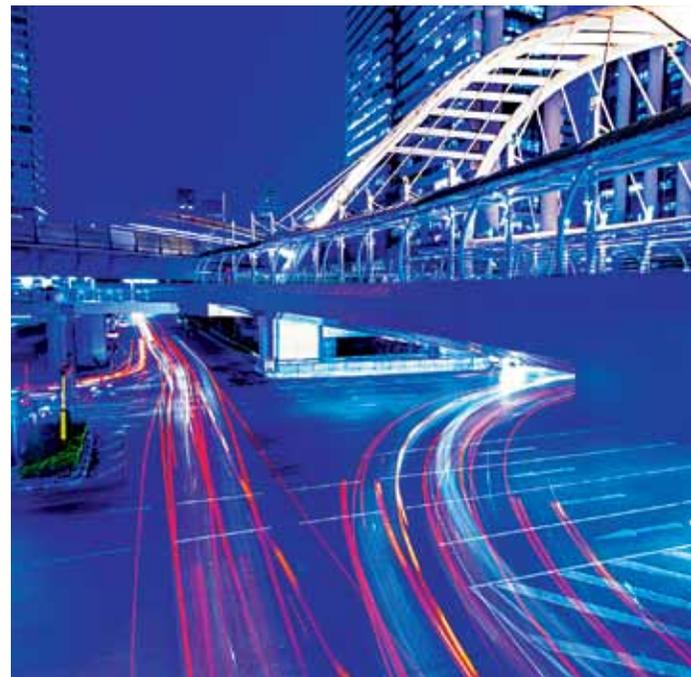


Thomas Jarzombek
CDU, member of the Bundestag,
member of the Committee for
Transport and Digital Infrastruc-
ture, substitute member of the
Committee on Industry and Trade

Ensuring the mobility of people and goods is one of the central societal tasks of the present and the future. Mobility means flexibility and freedom, and is therefore one of the most important prerequisites for societal development and economic growth – and ultimately the foundation of immaterial and material wealth.

The need for mobility within the population and economy is not only increasing, but also transforming. In terms of mobility of people, there seems to be an increasing awareness of sustainability when it comes to personal movement between locations. For an increasing number of people, the car is less of a status symbol and more of a means to an end. Despite this, citizens have thus far been reluctant to commit to the concept of electromobility. Increasing proportions of people living in urban areas and expanding economic centres are also leading to a geographical imbalance in terms of the demand for mobility. In rural areas, it is becoming increasingly difficult to satisfy mobility needs in an economically efficient and socially responsible manner. In large conurbations, there is the threat of overload of transport capacities and ecological restrictions.

In terms of the mobility of goods, many developments can be seen, down to a change in the modes of transport chosen. Demand for flexible and secure forms of goods mobility is increasing, regardless of the mode of transport. What is needed here are intelligent solutions so that there are no more bottlenecks or ecological disadvantages in large conurbations in view of the increasing individualisation of urban delivery transport.



Modern logistics solutions can guarantee economically efficient yet environmentally compatible and socially responsible mobility for people and goods. One example of excellence in this area is the cluster project **EffizienzCluster LogistikRuhr**. A wide variety of products, ideas and innovations from science and business contribute to preparing society for changing framework conditions such as the change in German energy policy, demographic change or urbanisation, and enable it to maintain the lifestyle that it is accustomed to. For example, **Urban Retail Logistics**, an initiative run by the cluster project, uses logistical solutions based on innovative forms of trade and local supply concepts to contribute to shaping urban goods and services supply in a resource-saving way – a key contribution to managing the economic, ecological and societal challenges associated with the change in mobility needs.

Berlin/Potsdam and Hamburg (“Wirtschaft am Strom”) as examples of model regions for electromobility also show how drive technologies based on renewable energy can be implemented in urban passenger and goods transport using logistical planning concepts. Furthermore, pilot applications for the use of innovative information and communication technology with **e-ticketing** and billing functions using **near field communication** in public transport highlight that, together with logistical design concepts, technological innovations can help advance solutions, such as an efficient and environmentally-friendly mobility chain, in cities.

The world’s largest logistics provider **Deutsche Post DHL** is taking a pioneering role in handling the challenges posed by urbanisation and changes in mobility needs. The company uses **innovative logistics planning concepts for last-mile distribution** and vehicles with advanced information and communication technology, which allow for increasingly efficient route planning. This reduces traffic pressure, fuel consumption and CO₂ emissions. **Smart trucks** increase the economic and ecological efficiency of delivery and collection and ensure competitive, nationwide supply of goods. In addition, Deutsche Post DHL is transforming **Bonn** into a **model city for CO₂-free delivery vehicles**: It uses electric delivery vehicles in the city centre and the surrounding area, making Bonn the world’s only location with CO₂-free delivery of letters and parcels. The pilot project, supported by the Federal Ministry for the Environment, is a role model for other cities and regions: thanks to innovative drive technology, it is possible to considerably reduce noise and environmental pollution, save fuel (which also makes economic sense) and also increase supply performance.

BVL INTERNATIONAL RECOMMENDS:

- That urban developers, environmental authorities, transport planners and logistics experts work together. Political initiatives and cross-area, interdisciplinary activities are needed nationally, regionally and on a local level.
- The implementation of environmental zones is a static tool for reducing pollution that has questionable success. The introduction of a city toll, however, is a dynamic and intelligent control tool that can be used to both reduce pollution and control traffic in overcrowded areas of towns and cities.
- That access to urban spaces and their accessibility for logistics service providers and tradespeople remains secure in future, regardless of whether access limitations are introduced for private users.
- To ensure the success of electromobility, it is important not only to promote technologies, but also to implement user-specific incentives for each individual target group.
- Infrastructure creates demand – including in electromobility: an EU-wide supply network and EU standards for charging technology should be implemented.
- In order to facilitate the transition to purely electric and hydrogen-based mobility, bio natural gas – based on methanation of carbon dioxide and hydrogen from renewable energies – should be promoted as a transitional solution. Vehicle drives and a suitable natural gas network already exist.
- Electric goods transport is still in its infancy and should be specifically promoted. This particularly applies to solutions for last-mile distribution in large conurbations.
- For goods supply in large conurbations, BVL suggests solutions within the scope of city logistics or urban logistics. In order to realise logistics potential, state or local regulatory frameworks and/or incentives should be created, as the free market economy does not lead to ecologically efficient solutions in this area.
- The introduction and market launch of electromobility should be accompanied by a legal framework that offers the first users privileges as an incentive, for example free parking spaces or round-the-clock city centre delivery.

BVL welcomes and supports initiatives from its research partners in the fields of electromobility and alternative fuels. Before these are forwarded on to the financiers, the BVL research council investigates whether they are worthy of finance.

VIEWPOINT 3 INFRASTRUCTURE

Infrastructure – as the foundation of German prosperity and outstanding economic performance – must be maintained and expanded in line with the times.

POLITICAL POINT OF VIEW

“Germany’s transport infrastructure holds a top position in Europe. I aim to, and will, fight for our country to retain its locational advantage. We will carefully determine where investment is most urgently needed over the coming years. This is the remit of the 2015 - 2030 federal transport plan, which has already been introduced. In addition, I believe that it is extremely important that financing of the maintenance, expansion and new development of our infrastructure be based on a reliable and broad foundation. Investment in transport routes must be secured at top level. Traditional public financing alone will not be enough. The current government’s coalition agreement makes clear indications in this regard. One important step, of course, is increasing public funds. However, the limited possibilities of the budget mean that there will be an increased need for other sources of finance in future. In my opinion, it is important that foreign users of our autobahns also participate in financing them. Another important approach is public-private partnerships. I believe that cooperation with private investors can considerably increase the public sector’s room for manoeuvre.”



Dorothee Bär
CDU, member of the Bundestag,
Parliamentary Secretary to the
Federal Minister of Transport and
Digital Infrastructure

Secure and high-performance infrastructure forms the backbone of the German economy, as it ensures that the division of labour functions properly. At the same time, modern infrastructure for transport, energy and telecommunications contributes to reducing the need for resources and promotes the sustainable development of the economy.⁹ Thus, this means: lack of investment in infrastructure is hindering the growth of logistics and having a negative impact on Germany’s overall economic development.

Roads, in particular, are at their limits as a mode of transport, and are sometimes even pushed beyond these limits. The transport infrastructure is characterised by permanent under-financing, which leads to infrastructure methods merely becoming a type of deficiency management. In its report on the future of transport infrastructure financing published in December 2012, the Daehre Commission comes to dramatic conclusions and speaks of a “threat of serious decline in the existing transport infrastructure in Germany”. Gross investment in transport has been stagnating for 20 years. Whilst the share of GDP occupied by transport investment was 1 per cent in 1992, this figure is currently 0.7 per cent. However, during the same period, passenger transport increased by 25 per cent and goods transport increased by as much as 300 per cent. Added to this are warning value exceedance rates of 19.6 per cent on autobahns, 41.4 per cent on trunk roads and 46.1 on bridges on trunk roads. Within the rail network, a third of rail bridges are more than 100 years old. The Daehre Commission’s conclusion? In the next 15 years, there will be a shortfall of more than 7.2 billion euros a year for the maintenance of the German transport infrastructure alone.¹⁰ In autumn 2013, the Bodewig Commission recommended that funds (infrastructure fund for rail, infrastructure fund for road) and similar structures be used to finance the backlog and continuously maintain suitable “routes for an efficient organisational structure and procurement”.

The various modes of transport – road, rail, air and sea – are still not sufficiently interlinked. This is the reason that shifts in modes of transport – particularly away from the transport of goods by road – have not yet happened. More environmentally-friendly modes of transport, such as rail and sea, are under-represented in the modal split, and their shares in transport are not increasing as hoped, despite political demands.¹¹ At the same time, the virtually unanimous opinion is that there will continue to be considerable increases, particularly in goods transport, for Germany as the “logistics hub of Europe” and as an internationally established principal transport interchange.¹² However it is not only in transport, but also in energy and information flows, that disruptions are already causing considerable economic and ecological damage. The high-tech association BITKOM predicts that over the coming years the volume of data will grow more quickly than capacity for data processing, which currently doubles around every 18 months:

- 9 A BVL survey carried out in 2012 among 200 German companies from industry, commerce and the service sector that are highly involved in logistics shows that around 90 per cent of logistics providers believe that future business development is directly dependent on investment in infrastructure.
- 10 Report from the commission for the “Future of Transport Infrastructure Financing”, chair Karl-Heinz Daehre, December 2012
- 11 Masterplan Güterverkehr und Logistik, German government, Federal Ministry of Transport, Building and Urban Development (BMVBS), September 2008; Aktionsplan Güterverkehr und Logistik – Logistikinitiative für Deutschland, BMVBS, November 2010
- 12 Prognose der deutschlandweiten Verkehrsverflechtungen 2025, BVU, November 2007; World Transport Reports (WTR) 2012/2013; ProgTrans AG, 2012
- 13 Report from the commission for the “Future of Transport Infrastructure Financing”, chair Karl-Heinz Daehre, December 2012; report from the commission for “Sustainable Financing of Transport Infrastructure”, chair Kurt Bodewig, 30.09.2013
- 14 It is also important to expand research projects to create a transport database, such as within the scope of the 2015 federal transport plan.

the association states that more data was generated between 2000 and 2002 than ever before in the history of mankind. Between 2003 and 2005, this volume of data multiplied four-fold. In 2012, the worldwide volume of digital data had increased again, this time ten-fold, compared with 2006.

When we at BVL focus on infrastructure, we always concentrate on both elements: information flows and material flows. The real need for investment in infrastructure breaks down into three aspects: clearing the backlog, maintenance and growth – in both areas. If strengthening the German economy is a declared political goal, then strengthening the entire infrastructure is essential.

Although investment in the expansion of infrastructure is stagnating, there are always exemplary projects to be found. In particular, there are clear gains to be made in efficiency where the public and private sector work together. Such public-private partnerships (PPP) are particularly suited to clearing blockages caused by a lack of finance. An important milestone for modern transport infrastructure in Germany is the **expansion of transport infrastructure on Autobahn A8** between Augsburg and Munich. Started in June 2007, it was completed four years earlier than planned, in December 2010. Another excellent example is the construction of **Autobahn A4 to bypass the Hörselberge mountains**: again here, the expansion of the transport infrastructure system was completed a year earlier than planned, with a construction time of just under two years, thanks to the PPP concept.

However, it is not just the expansion of transport networks that requires new ways of thinking. It is also important to speed up efficient networking of the individual modes of transport, as this is a prerequisite for flexible, secure and environmentally-friendly alternatives to road transport. Alongside the cost, flexibility and security that can match up to road transport are the main criteria for a shift in modes of transport in both passenger and goods transport. The successful **segregation of passenger and goods transport on a main connecting route, the Rhine Corridor**, shows that rail remains competitive as an environmentally-friendly, responsive and predictable mode of transport.

An example of the implementation of increasingly necessary IT-based networking is the project for piloting and implementing the **process data accelerator | P23R** principle for data exchange between business and administration, supported by the Federal Ministry of the Interior. The development of methods and standards for the simplified exchange of data between business and administration reduces bureaucracy costs and is also an approach that will strengthen innovative solutions as **e-government – made in Germany** on a global scale.

BVL INTERNATIONAL RECOMMENDS:

- In order to clear the backlog and ensure both maintenance and growth, spending on infrastructure must be doubled.
- Creation of a budget-independent fund to finance the maintenance and operation of the transport infrastructure in accordance with the reports of the Daehre Commission and the Bodewig Commission.¹³
- Further development of PPP concepts to finance infrastructure projects.
- Use of project managers with proven experience, in order to realise large infrastructure projects within the required time and set financial framework.
- Promotion of new infrastructure technologies along value creation chains, in order to strengthen intermodal goods transport and increase ecological efficiency.
- An increase in combined transport along the main routes, particularly the rail-based hinterland connections to seaports. Attention to goods transport, as compared with passenger transport, with individual main routes wherever possible as part of a European transport area.
- Europe-wide harmonisation of the transport database and framework conditions for intermodal, cross-border, IT-based networking.¹⁴
- Expansion of information networks and carrying capacities as well as securing of data flows against misuse and promotion of cloud-based applications specifically for SMEs.
- Environmentally compatible, foresighted and un-bureaucratic securing of infrastructure against natural disasters (see flood).

BVL will use specific working groups to provide stimuli for new solutions and technologies for using and developing infrastructure even more efficiently, and make its contribution to convincing people of the value of projects on a factual and emotional level.



CLIMATE PROTECTION AND ENVIRONMENTAL AWARENESS

As a forerunner in environmental technologies, Germany should also take on a leading role in the development and implementation of ecologically efficient processes in the transport and logistics sector in Europe.

POLITICAL POINT OF VIEW

“The high energy consumption in today’s goods logistics is the Achilles’ heel of our national economy. Growth in the logistics sector is at its limits, in terms of both transport infrastructure and available raw materials. In terms of climate policy, the scope for the development of the sector is very tight, meaning that a change in trend is unavoidable. The goals for transport intensity agreed in the government’s sustainability strategy are misguided – instead of a reduction, there is further growth. In order to launch the necessary far-reaching process of transformation in the logistics sector, we need true costing on all levels. Allocating the relevant external costs to the individual modes of transport will result in new, fairer competitive conditions that promote more energy-efficient and climate-saving logistics chains (e.g. integration of the transport of goods by rail).”



Stephan Kühn
Bündnis 90/Die Grünen, member of the Bundestag, speaker for the Green fraction on transport policy

Awareness of responsibility for the environment as a common good within German and European society is growing, and sustainable operations – more precisely, careful interaction with the environment and its resources – are proving to be essential. Under the right conditions, this awareness can also be reconciled with corporate interests and values: if economics and ecology are in harmony, willingness to change and invest in environmentally-friendly measures is high.

Striving for ecologically efficient solutions is a permanent component of logistical considerations. Ecological efficiency is when a company can provide the same service using fewer materials, energy and space, for example. Logistics optimises the use of resources. Logistics optimises processes, working within new framework conditions and technologies, and always within the context of a continual process of change.

As a role model in climate protection, Germany is also strengthening its own economy in its efforts to export technologies and solutions. As the sector of mechanical engineering with the highest turnover, German manufacturers of material handling technology are the world market leaders and offer ecologically efficient solutions. As the country with the highest logistics turnover in Europe, the challenges are also great for Germany in terms of achieving an absolute reduction in polluting emissions in the mid and long term, despite increasing transport volumes.



¹⁵ Awardee of the 2013 Supply Chain Sustainability Award from BVL International
¹⁶ Das Grünbuch der nachhaltigen Logistik, G. Gregori und Th. Wimmer (eds), BVL, Deutscher Verkehrs-Verlag, 2011

The company **Tchibo**¹⁵ is an excellent example of how the answers that intelligent logistics provide to the challenges of a global economy per se have a very holistic character. This example makes one thing clear: economic and ecological sustainability can be reconciled if suppliers, business partners, employees and customers are consistently involved in the shaping of the entire supply chain. A code of conduct anchored in the supplier relationship ensures, for example, that coffee and timber products are grown in an ecologically sustainable way, and that PVC and heavy-metal inks are not used in the packaging of consumables. In addition, it facilitates logistical networking along the supply chain, and allows for three measures to be implemented in goods transport to promote ecologically sustainable operation: avoiding unnecessary transport runs, shifting transport to rail and establishing CO₂ reporting for the entire logistics process. Environmental protection programmes such as **GoGreen** from international logistics service provider **DHL** also demonstrate corporate willingness to reduce the company's impact on the climate and environment.

A forerunner in the targeted application of resource-saving logistics is automotive manufacturer **Audi**. The company uses CO₂-neutral rail transport for goods under the environmental programme **Eco Plus** from **DB Schenker**. It bundles together all inbound transport across the group and handles it via regional consolidation centres. Audi consistently follows this route when planning new buildings and places particular emphasis on energy-efficient design. **Training programmes** for drivers, such as those offered by vehicle manufacturer **MAN**, also contribute to teaching measures for more economical and environmentally-friendly driving in the transport of people and goods, particularly to small and medium-sized enterprises in the transport sector. This allows fuel consumption, and the associated emissions of greenhouse gases, to be reduced by up to 10 per cent in the transport sector. This contribution can be increased considerably if accompanied by logistical tools for optimising entire value creation chains and route optimisation, through shifting of transport to more environmentally-friendly modes of transport or through the economical use of more energy-efficient vehicles.

Together with its logistics service provider **Talke**, chemicals company **Lanxess** has shown, using a practice test, that the use of "green tyres" with lower rolling resistance reduces fuel consumption by around 8.5 per cent. When using 300 lorries in the 40-tonne class, a company can thus save around 1.5 million euros in fuel costs and more than 3,000 tonnes of CO₂ each year – an example of co-operation between technology and logistics to the benefit of climate protection.

With its "**green book**" of **sustainable logistics**¹⁶, BVL has worked with its sister organisation BVL Austria to provide a handbook for the resource-saving design of logistical processes. The document describes tried-and-tested, concrete measures for a wide range of logistical applications, from which planners and operators can develop intelligent and future-oriented alternative processes to fit their own situation in practice.

BVL INTERNATIONAL RECOMMENDS:

- That transparency of information and targeted communication on the part of politics will create the necessary acceptance among consumers for external costs for environmental and climate protection being added to products and services.
- That only through presenting a unified front can the political decision-makers of the leading nations successfully integrate environmental costs into the economy's decision-making processes.
- Europe-wide agreement on standardised climate and environmental protection measures, whereby market economy-based solutions must always be given priority, for example through emissions trading, with implementation of the necessary corrections.
- The creation of common standards and labels that ensure transparency of information and complete comparability of sustainable logistics services for consumers.
- Support, particularly for SMEs, in the implementation of climate and environmental protection measures, in order to be able to also implement climate-neutral transport internationally.
- That climate protection-related contributions such as eco or emission taxes on fuel prices must be designed in such a way that logistics service providers can transfer these costs to the shippers and dispatchers as the parties actually causing the emissions.

In order to strengthen political and societal perception, BVL will raise awareness of logistics projects with ecological effects and economic benefits as well as a role model function for people and society, including within the business world. BVL offers the world of politics its support in the joint marketing of top German technology in sustainable logistics abroad.

CHANGE IN ENERGY POLICY AND ENERGY EFFICIENCY

The change in German energy policy is to be seen and promoted as an opportunity for more independence and economic growth, and therefore job security.

POLITICAL POINT OF VIEW

“The change in German energy policy is the greatest challenge that the transport and logistics sector faces. However, new alternative drives or the increased use of renewable energies alone will not bring quick success in the transport sector. Electric-powered vehicles are still not meeting the requirements of mileage and reliability. Manufacturers will need to utilise their entire capacity for innovation and research to find economical solutions in this area. First and foremost, transport needs to become more efficient, thus improving the energy balance in the sector. To do this, what is needed is optimisation of transport chains and better interlinking of modes of transport, combined with an increase in combined transport. In the end, energy-efficient transport will be the most economical, and therefore a clear locational advantage.”



Sören Bartol
SPD, member of the Bundestag, deputy chair of the fraction (responsible for Transport, Building and Digital Infrastructure)

Germany is rich in manufacturing, services and industry but low on raw materials, and is therefore dependent on energy and raw material imports. As part of the general dwindling of resources and the associated increase in volatility on the markets, security of supply in energy and raw materials is becoming increasingly important. In the long term, energy costs will increase further and have a very negative impact on the competitiveness of companies in Germany.

As a reaction to this development, the expansion of renewable energies is being continually driven forward, on both political and economic levels, following the abandonment of nuclear power. However, investment in modernisation of the German energy network has been very much neglected over recent years – a development that generates societal and economic uncertainty. A reliable energy supply that is secured in the long term is the only way to secure Germany's and Europe's high quality as a corporate and social centre.

Companies are already using a package of logistical and coordinated processes to overcome these challenges. These include increased use of energy-efficient technologies and renewable energies, optimisations in stock along value creation chains, finance-related methods for securing prices of raw materials and smart metering system solutions for the intelligent analysis of energy consumption. In this way, transparency of information increases as a basis for acting and making choices to increase energy efficiency.

An excellent example of how handling of limited energy resources in Germany and Europe can be designed in a logical way with the help of innovative logistics strategies are the **transport logistics for the construction of the Nord Stream gas pipeline**¹⁷ through the Baltic Sea from Vyborg in Russia to Lubmin in Germany. Enormous quantities of material needed to be procured on the global market and distributed locally. Strategic use of production and storage facilities for the large construction site helped fulfil this task. The company intelligently adapted logistical methods and technologies from other areas of industry. Thanks to short routes, this process not only allowed transport to and from the construction site to be kept to a minimum; the company also managed to optimise energy consumption for goods transport as compared with traditional supply strategies, i.e. considerably reduce it without compromising material supply.

Energy requirements for movement of goods can be reduced through innovative drive and automation solutions. Material handling technology is used from arrival of materials, through the entire production process and further processing, to storage and dispatch, whereby energy consumption is continually reduced with the help of energy-efficient drive components or innovative energy recovery processes.

¹⁷ Awardee of the 2010 German Award for Supply Chain Management from BVL International

¹⁸ Sustainable Logistics – Nachhaltigkeit von Logistikzentren durch Emissionsbewertung, Ressourcenschonung und Energieeffizienz, H. Zadek und R. Schulz (eds), BVL working group, Deutscher Verkehrs-Verlag, 2011

One example of excellence for a supplier of such technologies is family-run German company **SEW Eurodrive**. The energy efficiency system and products are based on the identification of energy-saving potential in the movement of goods. Processes as can be found in many industries (such as the beverage industry) and service sector (such as luggage handling at airports) are fully optimised in terms of their energy efficiency.

The regional pooling of companies and research institutions contributes to developing energy-efficient processes and solutions through the transfer of knowledge and technology, in order to help combat the challenges of dwindling resources. For example, the Fraunhofer Institute for Factory Operation and Automation IFF in Magdeburg works with the Otto-von-Guericke-Universität Magdeburg as part of the **ER-WIN innovation cluster** (ER-WIN: “intelligent, energy-efficient regional value creation chains in industry”) to support companies in Saxony-Anhalt in pooling regional expertise and creating synergies in value creation, both directly within businesses and between different companies, in order to strengthen their competitiveness in the long term.

The technology group **Siemens** also shows how energy savings can be integrated into industrial and service companies in accordance with logistical principles. As one of the world’s leading providers of automation and drive technology, the company uses products and solutions that not only facilitate individual savings, but utilise the full potential of energy savings through a holistic view of the entire value creation chain.

The results of the BVL working group **Sustainable Logistics**¹⁸, which have been documented in book form, also make it possible to plan and implement resource-saving and energy-efficient logistics centres, as well as evaluating the emissions of logistics services.



BVL INTERNATIONAL RECOMMENDS:

- The creation of incentives in order to modernise material handling and storage technology, as well as “intralogistics”, in an energy-efficient way, particularly among SMEs, and support for German material handling technology manufacturers as world market leaders (see benefits of scrappage bonus for the automotive industry).
- The promotion of the expansion of renewable energies through autonomous energy parks with constant provision of energy: the supplier of renewable energies guarantees the provision of power through its own compensation and storage technologies.
- Support for logistics companies with the aim of them generating their own renewable energy and heat and modernising existing logistics centres.
- The expansion of energy networks in terms of the feed-in and storage of renewable energy and the consistent implementation of an intelligent power network based on the smart grid concept.
- Strategic planning of energy networks in harmony with the planning of supply networks, including provision of alternative fuels using existing infrastructures.
- The promotion of intelligent solutions in goods transport as part of the change in energy policy with the aim of achieving energy efficiency in both combined transport and road transport (long lorries) as well as the distribution of goods within large conurbations.

BVL will continue to address resource and energy efficiency in working groups and at events. It will ensure an important exchange of knowledge and experience among its members and company decision-makers, which will contribute to a change in energy policy within companies and higher energy efficiency.

SOCIETAL DEVELOPMENT

Societal developments are increasing the complexity of the way we live together, and therefore also the economic world. The challenge lies in managing this complexity and ensuring flexible but reliable control of mobility and goods flows.

POLITICAL POINT OF VIEW

“The logistics sector is facing completely different challenges today than it was 15 years ago: 24-hour delivery services as the standard, the ‘mobile warehouse’ caused by price pressure on the manufacturing industry, people’s increasing awareness of noise pollution caused by vehicles and an increase in requirements placed on individual mobility mean that the logistics sector needs to change tack (as do other sectors). For this reason, political support is required for innovative solutions and the companies that face these challenges. Transport policy also needs to be realigned and take a fresh look at topics such as combined transport, transport planning and, in particular, urban planning, as well as the new reality of logistics and ways of living. Alongside transport security, the security of the logistics chain in the world wide web is particularly important in terms of real operation. We can only combat this challenge through cooperation between the logistics sector and politics. The BVL paper is a good start, and I look forward to the subsequent debate.”



Kirsten Lühmann
SPD, member of the Bundestag, speaker for the SPD fraction for transport policy, chair of the Committee for Transport and Digital Infrastructure

Digitalisation and virtualisation have become drivers of societal development. Increasing media use and networked communication create transparency, also having an increasing impact on the economy and its logistics. This leads to consumer behaviour changing, towards more individual and complex products and solutions.

One consequence of this development is a change in the ordering behaviour of customers within supplier chains: the number of smaller shipments is increasing, customers are ordering¹⁹ and returning goods more often – a development that goes against logistical principles of efficiency. Increasing urbanisation and the growing number of single households are reinforcing this trend. Demographic change towards an older society is also leading to new requirements in terms of the ergonomics of workplaces and mobility options in both large conurbations and rural areas.

The networked society is reflected in the bond between opportunities and risks of global trade structures. More and more alternative distribution and communication channels increase the range on offer and the use of manufacturing, services and industrial products in global trade. At the same time, the complexity of the corresponding networks for service provision is increasing – and with it the number of necessary changes in location of people and goods. In addition, the growing number of distribution and communication channels allows an increasing number of products to be offered from abroad, which are often not manufactured under the same social and ecological conditions as similar products in Germany.

German companies are already combatting these challenges individually with the help of innovative logistics, but political support is required in order to be able to implement these approaches across the board.

An excellent example of a good reaction to these challenges is the corporate group **Würth**²⁰, which simultaneously uses several distribution channels and flexible solutions for goods mobility, thus going closer to its customers and increasing

¹⁹ Trends and Strategies in Logistics and Supply Chain Management – Embracing Global Logistics Complexity to Drive Market Advantage, R. Handfield u. a. (eds), international study by BVL, Bremen, 2013
²⁰ Awardee of the 2009 German Award for Supply Chain Management from BVL International
²¹ Awardee of the 1996 German Award for Supply Chain Management from BVL International

its competitiveness in networked international competition, whilst also strengthening manufacturing and industry in Germany and Europe. In the consumer goods sector, the **Otto Group**²¹ shows how mail order trade can be complemented and optimised with internet trade by reacting to societal changes and adjusting the logistics processes that sister company logistics service provider **Hermes Logistik** covers.

Goods identification technologies, such as an expanded barcode with QR codes and RFID (radio frequency identification) transponders, are also successfully integrated into the logistical coordination of supply chains as part of the change in consumer behaviour. In the information and identification technology sector, German companies such as **deister electronic** are some of the best in the world. This technological potential forms a foundation for the German economy implementing holistic logistics solutions in order to combat complexity and ultimately increase its competitiveness.

Information technology products and systems such as those produced by software company **PSI** can be used to control goods flows, as well as monitoring complex transport infrastructures. On this informational basis, service providers in passenger transport can ensure that they are offering a flexible and reliable range of transport in urban and rural areas.



BVL INTERNATIONAL RECOMMENDS:

- The introduction of internationally applicable and reliable quality seals for products and logistical process ideas as well as support for product innovations in order to continue to generate incentives for innovative solutions in passenger and goods mobility.
- Joint establishment of these certificates, quality seals and labels by politics and industry associations such as BITKOM and BVL.
- The creation of common IT standards and regulatory frameworks for data security, particularly as regards foreign providers that enter the European area as part of digitalisation but are currently not subject to the regulations.
- Support for global information networking for younger and older population groups alike as demographic change takes place.
- The use and promotion of new opportunities for people in rural regions on the basis of the possibilities offered by information networking, digitalisation and logistical solutions, in order to counteract migration into cities.
- The promotion of logistical innovations in all sectors of societal and economic life, particularly in order to limit the effects of unstoppable demographic change.

BVL supports this policy by documenting the benefits of digitalisation and innovative logistics technologies on the basis of practical examples in logistics – at events and in exchange with the industry association BITKOM.

EMPLOYMENT MARKET, EDUCATION, TRAINING

Education and training, two of the most important prerequisites for prosperity, innovation and competitiveness, must be expanded and modernised.

POLITICAL POINT OF VIEW

“DIE LINKE sees education as a human right. Education contributes to people being able to shape their lives in a confident, self-determined and independent way. For this reason, everyone must be granted free and equal access to education – throughout their entire life. In our opinion, modern education includes polytechnic education and the promotion of creativity as a component of general education within schools. The learning material should be varied and not solely aimed at usability on the employment market. Orientation towards professional life is an immanent component across all areas in all schools and for all school pupils. Education is a basic public service and must therefore be publically financed. Companies are responsible for further professional training.”



Dr. Rosemarie Hein
DIE LINKE, member of the Bundestag, speaker for the fraction for education

The world's population is growing. In Germany, however, the overall population total is decreasing, whilst the proportion of older people is increasing. Increasingly fewer employed people are having to provide for increasingly more people that are no longer of employment age. Germany needs a range of skilled workers – more desperately than ever before, and particularly in the field of logistics.

At the same time, the requirements placed on professions in the various areas of activity within logistics are increasing in process and product complexity. As a result of this development, there is already a lack of skilled workers in this economic sector. Innovations and entrepreneurship in German logistics require education and training; their importance continues to grow with scientific and technical progress. As the third-strongest, and a future-oriented, sector in Germany, the logistics sector requires additional support in education and training. A lack of skilled workers in logistics has a considerable impact on other economic sectors and the prosperity of German society.

The state's responsibility for education does not begin with vocational qualification, but at nurseries and in schools. For decades, society has been running in circles in terms of the modernisation of the school system, and is attempting to shape educational content based on the principle of specialisation. The requirements placed on the employed people of the future have changed to such an extent that as well as specialisation, they increasingly need process-oriented, i.e. cross-functional, thinking and team work, as well as interculturality and multilingualism. Good examples of this are currently primarily found in private institutions. These topics are not on the agenda for public institutions, however.

Unequal handling in hiring and in the recognition of qualifications is a problem due to the federalism of the educational system in Germany, as well as throughout Europe.



One of many measures proposed by BVL as an answer to this development is the Supply Chain Day that it organises. This aims to highlight ways into employment in the logistics sector to pupils and young people. Specialist articles and pupil workbooks such as the **publication “Wirtschaft im Hafen” (“The Economy in Ports”) from the Institute for Economic Education** used in the states of **Lower Saxony** and **Bremen** can also be used to provide basic economic knowledge (here in the area of port logistics), as well as to highlight the numerous training and subsequent employment opportunities in the port sector and logistics whilst the pupils are still at school.

Alongside ways into the profession, lifelong learning and further training is another integral part of BVL’s strategy, implemented at the **BVL Campus**. Dual university courses in the disciplines of international economics and logistics, specialist courses for state-certified business experts or specialists certified by the chamber of trade and commerce and BVL’s vocational seminars are already making a key contribution to educating and training new generations of skilled workers.

Companies such as **Bosch** and **Daimler** or intralogistics system suppliers **STILL** and **SSI Schäfer** are examples of how the economy promotes lifelong learning with varied innovative activities. This starts with training courses and sponsorship programmes for university graduates and extends right to the holistic further training of specialists and managers.

BVL INTERNATIONAL RECOMMENDS:

- Expansion of the education and training available in logistics on all levels.
- Increased support for engineer training and promotion of mathematics, IT, science and technology (“MINT” subjects) in order to counteract the threat of a lack of engineers.
- Communication of the importance of logistics as a future-orientated career path for qualified jobs and further training opportunities from school onwards.
- Intensification of state support for further education measures and safeguards in the reintegration of job seekers into professional life as a political response to accelerating population decrease and aging.
- Strong promotion of societal and political acceptance of the immigration of qualified workers.
- Development of additional flexible working time models in order to ensure the availability of the staff required to secure Germany as a centre for logistics and industry.
- Modernisation of the education system in schools and early education in nurseries, providing a more comprehensive education in terms of the process orientation and team work that is so important for logistics.
- Promotion of language skills in children, starting at nursery, through un-bureaucratic use of native-speaker educators, which will also increase intercultural skills, as the currently untapped potential is enormous at this age.
- Creation of standardised guidelines for education and for the recognition of qualifications in Germany and beyond the boundaries of the federal states and into Europe, as people often do not work in the same place as they were educated or trained.
- Promotion of the export of German educational standards as part of practical development aid.

With its BVL Campus, BVL is expanding its education and training capacity in both the training and university sectors. With the Thesis Award, it is specifically expanding the link between university education and practice in logistics.

RESEARCH AND INNOVATION

Innovations are the expression of progress and sustainability. In future, they will continue to require the right environment, not only within companies and research institutes, but within politics and public budgets.

POLITICAL POINT OF VIEW

“The key to growth and employment has always been to constantly reinvent yourself, experiment and break down all kinds of barriers. Logistics companies and logistics sites are still facing great challenges today. The global division of labour and electronic trade will continue to grow, and thus so will goods transport. Added to this is an increasing shortfall of skilled workers and higher requirements in terms of resource and climate protection. A high-performance logistics hub is characterised by a high level of dynamics and the associated innovative activity. The interlinking of economics and science is of particular priority, so that we can meet our ambitious growth targets. These dynamics will increase even further in large cities and metropolises over the coming decades. Finding a balance between economics, ecology and societal responsibility is a big challenge. Sustainability is always a question of ability to innovate.”



Frank Horch
Independent, Senator for Economics, Transport and Innovation of the Free Hanseatic City of Hamburg

Throughout its long history in Germany, research has already provided many answers to the challenges of the present and future. In the globally networked world with its constantly accelerating change in virtually all areas of life and economic activity, research can also contribute to alleviating societal uncertainties in future through knowledge and creativity.

German innovations in logistics are among the best in the world. Even more so if you consider not only new inventions, but also the – often neglected – rapid transitions of technical innovations into market-ready products. Particularly in this area, logistics functions across economic sectors, and goes a long way to ensuring the convergence of previously unassociated technologies into application-ready, tried-and-tested products. The linking of products and services leads to new business models and opportunities for competitiveness.

Logistics constantly require new IT solutions for very specific applications: these range from solutions for improved freight stowage on ships to modern agent systems that can determine flight prices depending on the current booking situation – not to mention highly complex systems for adjusting worldwide production capacities to the medium-term industry sales forecasts. However, many companies – particularly SMEs – lack the financial basis for innovations. Despite many promises to make granting of credit easier, the knock-on effects of the financial crisis have made the situation more difficult for SMEs.

Long approval procedures are commonplace in terms of sponsorship for research. It is not uncommon for more than a year to pass between submission of the research outlines to project sponsors on behalf of the federal ministries and receipt of the letter confirming allocation of funds. With an average project duration of two to three years, companies from the business world are asking themselves how long they should wait on the results of these urgent research projects.

Just one of many excellent examples of holistic logistics research is the **EffizienzCluster LogistikRuhr** supported by the Federal Ministry of Education and Research. Within this high-performance cluster, 120 companies and 11 research institutes work hand-in-hand on logistical solutions for the challenges of the future and set a milestone in logistics research and development with over 100 innovative projects and product developments.

Lekkerland Deutschland²² regularly supplies to more than 60,000 customers in Germany. Having developed its own multi-temperature vehicles, the company has managed to put an end to the delivery of different product ranges using several lorries (multi-stop strategy) and transition to cross-range supply using three temperature zones. This has managed to save 260,000 stops and 3.4 million kilometres a year – which corresponds to 2,000 tonnes of CO₂.

²² Awardee of the 2013 German Award for Supply Chain Management from BVL International

A role model in the linking of fundamental research and practical application with a focus on SMEs is **Allianz Industrie Forschung (AiF)** with the programmes of Industrial Collective Research (IGF) and the market-oriented Central Innovation Programme (ZIM) for SMEs on behalf of the Federal Ministry for Economic Affairs and Energy.

In terms of rapid processing times in the approval of grants for research projects in relation to their durations of three to five years, national programmes such as **Schaufenster Elektromobilität** or **Zwanzig20 – Partnerschaft für Innovation** should be mentioned.



BVL INTERNATIONAL RECOMMENDS:

- Creation of an innovation-friendly general environment.
- Consistent implementation of the plan to increase spending on research & development (R&D) to 3 per cent of GDP agreed by the EU in 2000 as part of the “Lisbon process”.
- Promotion of the linking of fundamental research and application-related or operational research across different disciplines and overlapping of traditional, functional and singularly aligned fields of research, as well as dissolution of preferences on the part of the parties involved in processing.
- Expansion of the IGF and ZIM programmes of Allianz Industrie Forschung (AiF).
- Establish support programmes for transport and operational logistics, in order to recognise their value as the third-largest sector in Germany and to strengthen their potential as a factor for success in international competition.
- Continuation of national support initiatives relating to innovations and their implementation. Cooperation between the ministries for economic affairs, the environment, transport, education and research is to be encouraged here.
- Use of experts from logistics on advisory boards with involvement in future-oriented support programmes and guidelines, in order to compensate for the current under-representation.
- Removal of bureaucratic hurdles in granting of credit and research support as well as acceleration of approval processes, particularly for SMEs.

BVL supports and promotes the creation of research partnerships in industry and business through the Scientific Advisory Board as well as scientific symposia, scientific journals and international doctoral workshops. Furthermore, it fights for its members to take responsibility for investing at least 1 per cent of operational turnover in research activities. In addition, BVL dedicates its working groups to selected research-related topics and commissions specialist studies into trends and strategies in logistics. At the same time, it coordinates its accredited research offices at German universities with Allianz Industrie Forschung (AiF), thus providing stimuli for the promotion of innovative applied logistics research and development for small and medium-sized enterprises.

CRISIS MANAGEMENT AND SECURITY

Evaluating risks and managing crises: these are new challenges that the state and companies need to prepare for.

POLITICAL POINT OF VIEW

“Humanitarian logistics also need to be seen as part of humanitarian aid. This means that transport and logistics in remote or deprived regions needs to be secured in a sustainable way. To do this, we need internationally standardised regulations for the transport industry. It should not just be about transporting raw materials out of regions with poor structures, but rather about opening up prospects for the people there. Combatting and preventing humanitarian crises is one of the greatest challenges of the future. Particular focus must be placed on piracy on the world’s seas: international strategies for preventing and effectively counteracting piracy are required, such as support for political solutions in the area. Protecting ships using weapons alone is not enough to be able to handle global trade flows securely and sustainably today and in future.”



Dr. Valerie Wilms
Bündnis 90/Die Grünen, member of the Bundestag, chair of the Green fraction on the Committee for Transport and Digital Infrastructure

The complexity of logistical structures in global value creation chains is increasing. At the same time, the number of risks, i.e. potential events with a negative impact on such chains, is growing. As well as disruptions within systems themselves, these risks include event-based disruptions such as natural disasters, earthquakes, floods and volcanic eruptions.

Alongside risks in the supply chain, the topic of security has gained increasing significance. Following terrorist attacks in the past, security requirements have constantly increased, driven by the USA – first in international passenger transport, then in goods transport. What the impact will be of the introduction of known consignors for air freight handling remains to be seen; what is expected is a bottleneck in security checks and therefore increased lead times for goods. These measures and specifications intended to improve security almost always increase the complexity of processes. However, logistics makes this manageable, as it optimises processes and combats bottlenecks.

Incidences of loss or counterfeit are increasing in the international exchange of goods, and cases of piracy are increasing in maritime transport. Correspondingly, security concepts using location technology and shipment tracking are of high importance in logistics. The commissioning of the Galileo satellite system will make a considerable contribution to this and to data security by being independent from the current GPS system.

Logistics is already coordinating strategies across companies in order to minimise or avoid disruptions along global supply chains – in terms of both the actual disruption or crisis and prevention. A prerequisite for being able to prevent individual disruptions or large-scale crises is making supply chains more flexible. Alongside optimisation of transport costs, delivery times and stocks, flexibilisation and risk control are gaining increasing significance as a part of supply chain management. This applies to both globally active groups such as **BASF** and the many small and medium-sized enterprises such as **GEBHARDT Fördertechnik**, **LINDIG Fördertechnik** or **SimPlan**.

The risks of goods supply can be further minimised by carefully planning and monitoring value creation networks. The use of radio frequency identification (RFID) is of great benefit in many areas in terms of securing goods against loss or counterfeit.

The government’s standardisation of logistics measures in order to prevent national and international crisis scenarios can be done together with BVL. The German logistics sector can provide procedures for dealing with humanitarian emergencies. Logistics is often right at the heart of getting aid quickly to people waiting for help. The development of expanded areas of activity such as logistics for humanitarian aid impressively shows that logistics can adapt to disruptions in traditional supply networks.

One of many examples is the company **Fujitsu**, which received the **21st Century Achievement Award** from Computerworld in 2012 for its exemplary commitment after the devastating earthquake and tsunami in Japan in March 2011. The earthquake and tsunami damaged important infrastructure connections and technology systems in the region, including in the areas of energy, telecommunications, transport and health. Alongside the provision of money and resources for the reconstruction of the affected region, Fujitsu provided IT and communication technologies as well as services to reinstate the infrastructure for mobile and landline telephones, and thus made access to important information and exchange between the evacuation centres easier.

Emergencies such as pandemics, bottlenecks in drinking water and food supplies or similar disasters can affect everyone in a global world – both industrialised nations and developing countries. For this reason, BVL has used the **2012 Science Award for SCM** to highlight work to ensure a technology and knowledge transfer in humanitarian logistics for the famine-stricken region of Africa. In doing so, it is contributing to bringing together the best approaches from business, science and society in order to create standards for humanitarian aid, implement tried-and-tested logistics methods and gain key advantages in dealing with crises.



BVL INTERNATIONAL RECOMMENDS:

- Creation of internationally standardised rules for security in goods transport – instead of individual national regulations – with the aim of equal competitive conditions.
- Creation of an economic fund, “Neue Deutsche Wirtschaft” (“The New German Economy”), in order to secure logistics-based and other primarily SME-based economic sectors in Germany, both in terms of security of energy and raw materials supply and against financial uncertainties.
- Securing of procurement of raw materials and supplier products from crisis regions.
- Development of emergency scenarios for certain crisis situations, with the help of logistics experts.

As a contact partner, BVL stands for more security in international goods trade and crisis management. It teaches the requirements of known consignors, as statutory regulations should always involve specialist logistics knowledge.

MARKETING AS A LOGISTICS HUB

Do good and talk about it: this also applies to Germany as a logistics hub. Entrepreneurs and politicians could do this more often and even better.

POLITICAL POINT OF VIEW

“Germany is one of the top five logistics sites in the world. We have very good infrastructure and are in the middle of the highly populated and strong economic area of the EU. We want to, and will, continue to strengthen logistics and its state-controlled conditions. In future, foreign countries should associate Germany not only with football and outstanding industrial products, but also with logistics. The German government’s international marketing offensive is heading in the right direction: ‘Logistics made in Germany’. Alongside this, however, we need to continue to cover all bases in order to continue to highlight the great advantages of Germany as a logistics hub throughout the world. Characteristics such as sustainability are becoming increasingly important on an international level and the government is continuing to focus on logistics. We need to make these benefits clear to others.”



Steffen Bilger
CDU, member of the Bundestag,
member of the Committee for
Transport and Digital Infrastruc-
ture and the Parliamentary Ad-
visory Committee for Sustainable
Development

Division of labour, energy efficiency, sustainability, dealing with demographic change: logistics in Germany meet many challenges with state-of-the-art solutions, and will continue to develop these in order to contribute to answering the questions of the future. As a leading centre for logistics in Europe, Germany has the technical abilities to create socially and economically sustainable as well as climate-neutral logistics systems, and thus generate another competitive advantage.

Logistics constantly create new jobs, and therefore important prospects for younger generations. After all, the logistics sector has a broad scope. Intralogistics experts, as manufacturers of material handling technology and automation, have the largest share in turnover in Germany’s mechanical engineering sector. Their value is impressive – but intralogistics is just one of many areas of logistics with a bright future. Germany is also the location for key international logistics trade fairs, such as LogiMAT in Stuttgart, transport logistic in Munich or CeMAT in Hanover.

Despite known shortcomings, Germany’s infrastructure and education system are among the best in the world. This locational advantage and the excellent logistical conditions need to be utilised when recruiting investors.



Knowing the value of logistics, many states and regions – such as Baden-Württemberg, Bavaria, Berlin-Brandenburg, Bremen, Emsland, Hamburg, Leipzig-Halle, Mecklenburg-Western Pomerania, Lower Saxony, Northern Hesse, North Rhine-Westphalia, Rhine/Main, Saxony-Anhalt, Schleswig-Holstein and Thuringia – have already founded their own **logistics initiatives**, which contribute to the marketing of commercial spaces as potential logistics centres, among other benefits.

In Germany, logistics is a driver of future innovations and growth. Foreign companies can also utilise this advantage when settling in Germany. However, foreign investors know too little about Germany's strengths in logistics.

BVL, with its subsidiaries and partnerships in Germany and abroad, highlights ways in which the successes of German logistics can be communicated at national and international conferences and trade fairs, in education and training and in European and international politics.

BVL INTERNATIONAL RECOMMENDS:

- European and worldwide marketing of logistics that is coordinated at national level and hand-in-hand with local logistics initiatives.
- Stronger presence at trade fairs and political events, particularly in the growth regions of Brazil, Russia, India, China (BRIC), the USA and Canada (NAFTA) as well as Mexico, Indonesia, South Korea and Turkey (MIST).
- Further improvement of economic framework conditions, such as corporate taxation and non-wage labour costs.
- Long-term securing of finance to maintain and expand infrastructure.
- Special regulations, such as bans on night-time flights, should be examined from the point of view of proportionality and planning security and only implemented on the basis of Europe-wide or international standards.

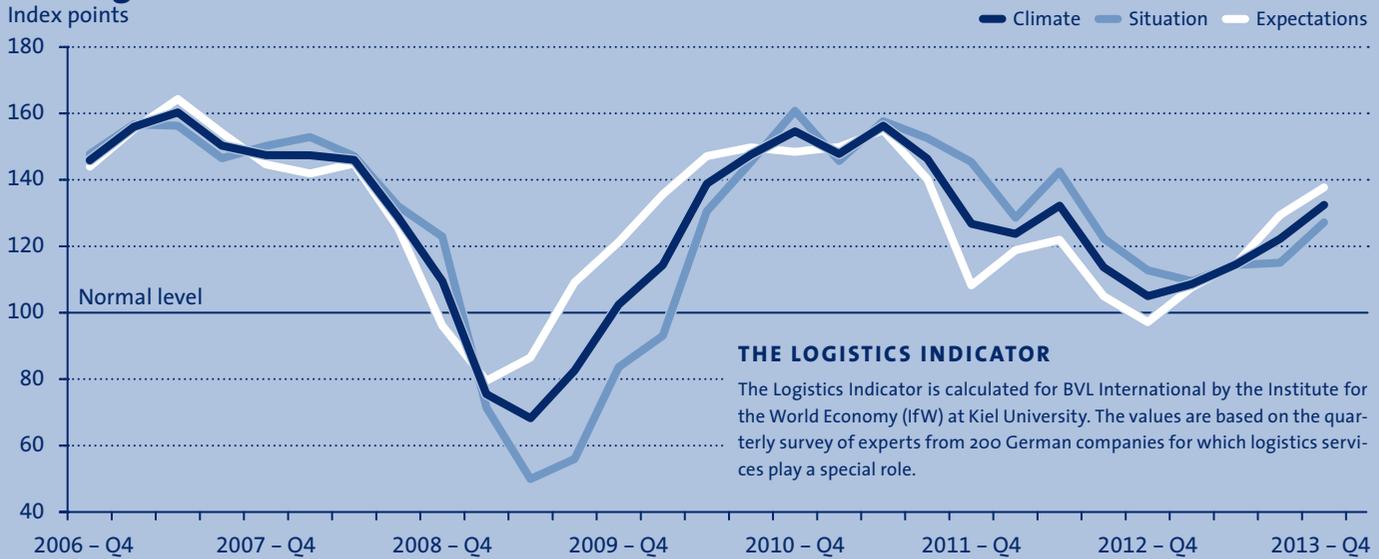
BVL will continue to step up its activities in communicating the value of logistics: in Germany with the Supply Chain Day, which shows society everywhere that logistics can be found, and abroad through special events and new subsidiaries. BVL will be happy to work with the world of politics in charting these new waters.



LOGISTICS “MADE IN GERMANY”

Germany is the leading logistics market in Europe. The figures and study results on this page tell you everything you need to know about this important branch of the economy.

The Logistics Indicator from BVL International and IfW Kiel



Upturn in the Rest of the Euro Area?

Can you sense an upturn in the economic situation of the euro area for your company, if you exclude Germany?



ifo Business Climate: A Comparison

Balances, season-adjusted

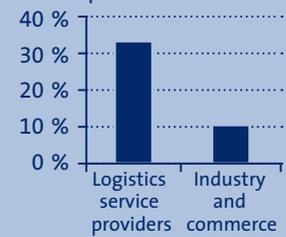


1) Manufacturing industry, main construction industry, wholesale and retail

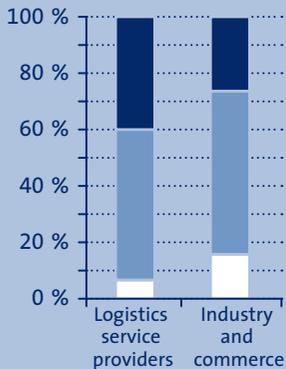
Business Trend

Expected development of the business situation over the next 3 months

Net improvement



Legend:
 ■ better
 ■ unchanged
 ■ poorer

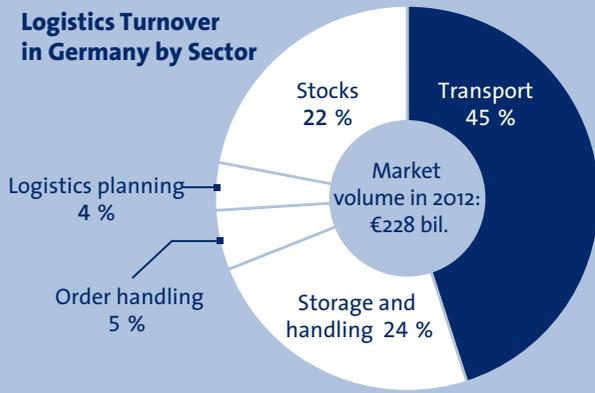


“ Around **2.85 million** people are employed by logistics service providers and logistics-based sections of industry and commerce, split between the two. ”

Prof. Dr.-Ing. Raimund Klinkner, BVL

Source: ifo-Geschäftsklima: ifo-Konjunkturperspektiven 12/2013; ifo Institute, Munich; all other data: Logistics Indicator 2013-Q4; IfW Kiel

Logistics Turnover in Germany by Sector

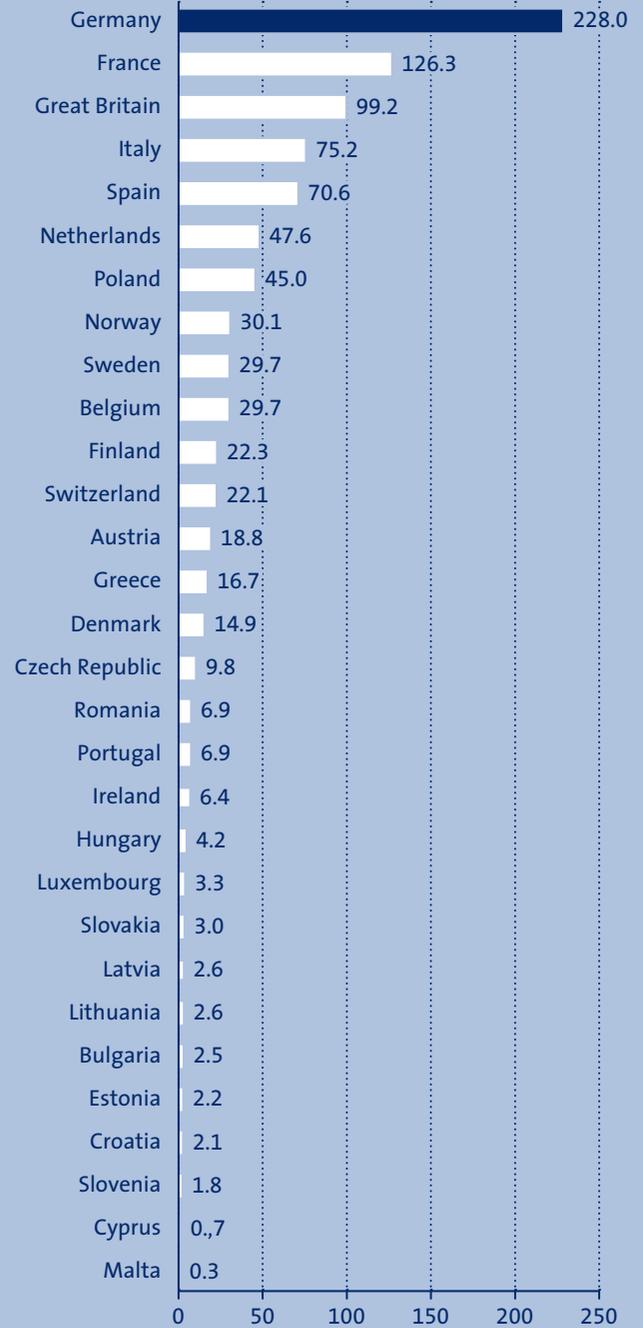


Top Logistics Service Providers in Germany

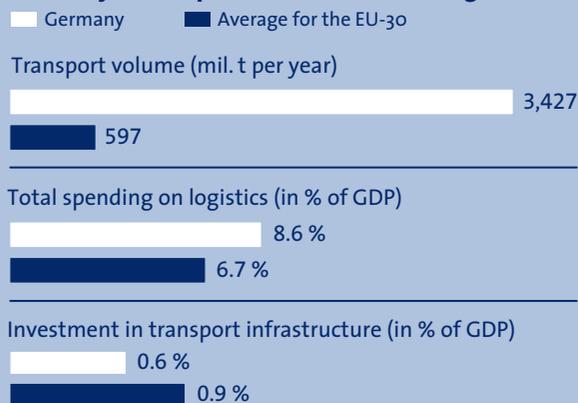
The majority of companies are of German origin

Company	Turnover from logistics in mil. €
1 Deutsche Post DHL	8,230
2 DB Mobility Logistics AG	6,988
DB Schenker Logistics	3,648
DB Schenker Rail	3,340
3 Kühne+Nagel International AG	3,238
4 Dachser GmbH & Co. KG	2,666
5 Rhenus AG & Co. KG	2,100
6 Volkswagen Logistics GmbH & Co. OHG	1,700
7 DPD GmbH & Co. KG	1,507
8 Panalpina Welttransport AG	1,506
9 UPS Europe NV	1,500
CargoLine GmbH & Co. KG (partnership)	1,398
10 Arvato	1,250
Total for Top 10	30,685
E.L.V.I.S. AG (partnership)	1,250
IDS Logistik GmbH (partnership)	1,130
11 Hellmann Worldwide Logistics GmbH & Co. KG	1,112
12 BLG Logistics Group AG & CO. KG	1,094
13 Imperial Logistics International B.V. & Co. KG	1,087
14 Fiege Logistik Holding Stiftung & Co. KG	1,000
15 Hermes Europe GmbH	1,000
Total for Top 15	35,970

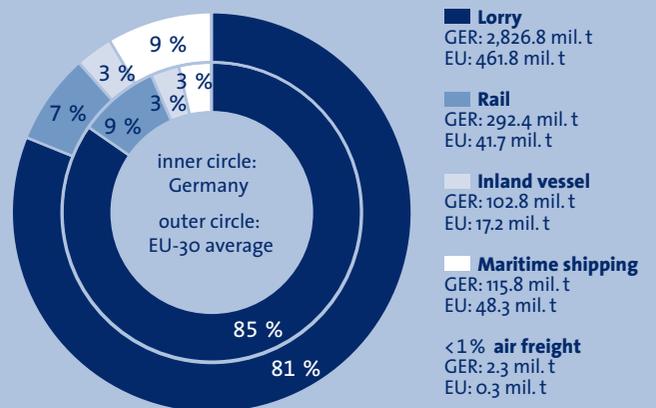
The Logistics Market Volume of the "EU-30" Countries in Bil. €



Germany as Compared with the EU Average



Modal Split: Transport Volume by Mode of Transport



Source: All images: TOP 100 in European Transport and Logistics Services 2013/2014, Fraunhofer Working Group for Supply Chain Services SCS

VIII. PRACTICAL EXAMPLES

MAKING OUTSTANDING PERFORMANCE VISIBLE

Empty shelves in the supermarket, no bandages in the hospital, standstill on the factory conveyor: our everyday lives simply couldn't function without logistics. However, if successful, supply chain management and logistics are virtually invisible, and yet essential. The ten viewpoints put forward by BVL International also show the areas that logistics affects, and greatly influences. The viewpoints highlight how complex and highly networked logistics are. They also demonstrate how extensive the influence of decisions that are made in seemingly completely different areas of business and society is.

Actors in this economic sector – including industrial companies, commerce, contract logistics providers and forwarding companies – work at an extremely high level. Particularly because logistics does not happen in the foreground, others need to speak for it, promote it, and make its services and associated requirements and prerequisites visible. BVL International officially honours the outstanding performance that the economic sector of logistics undoubtedly provides with awards, which it gives out every year.

These include the German Award for Supply Chain Management, which was earned by Lekkerland in 2013. The projects submitted by Siemens and partners WeserWind and BLG Logistics also demonstrated particular innovative ability, and were honoured as finalists. The relatively new Supply Chain Sustainability Award has so far been awarded to Audi and Tchibo. These companies that have earned awards from BVL as a result of their outstanding performances are presented in the following. These are flagships that give an example of the performance that logistics as a whole should stand for.



AWARDS FOR OUTSTANDING PERFORMANCE

BVL International provides several awards to honour the development of innovative concepts and the spread of specialist knowledge in logistics. These include the German Award for Supply Chain Management, which was given out for the first time in 1984, and has since become one of the most sought-after and significant logistics awards. BVL International has been giving out the Supply Chain Sustainability Award since 2012, together with BVL Austria. An overview of all awards can be found at www.bvl.de/en/awards.

Siemens | Finalist in 2013 German Award for Supply Chain Management [p. 35](#)

Lekkerland | Awardee of 2013 German Award for Supply Chain Management [p. 37](#)

Tchibo | Awardee of 2013 Supply Chain Sustainability Award [p. 40](#)

Audi | Awardee of 2012 Supply Chain Sustainability Award [p. 42](#)

BLG Logistics/WeserWind | Finalist in 2013 German Award for Supply Chain Management [p. 45](#)



Carefully packed, considerably shipped: Siemens AG uses environmentally-friendly means of transport.

Bold logistics experts win business hearts

Siemens AG works with individually tailored, sustainable logistics: in doing so, it not only protects the environment and meets its commitment to future generations, but also saves money.

What measures can be used where to save CO₂? At Siemens, fundamental work was done at the very start of efforts to achieve sustainability: as part of a group-wide initiative, ways to save resources in transport were defined, and it was worked out how these measures can be implemented within the individual business areas. “We asked ourselves how we could shape our network in such a way that this issue could be tackled effectively,” says Andreas Wolf, head of purchasing for land transport at Siemens AG.

The group worked with an internationally networked transfer centre that is based at the Technical University of Berlin and that advises industrial companies in matters concerning logistical challenges. Together, measures to reduce CO₂ emissions were identified. The structure of the Siemens group then required a very sophisticated approach: a whole catalogue was developed, listing the tools of the trade specifically according to the individual types of business.

“For us it was very important to lay foundations and systematically define the criteria according to which we were to work. We wanted to put on record what sustainability means to us,” says Wolf. →

The initial successes are measurable: in the 2012 fiscal year, Siemens was able to reduce CO₂ emissions in logistics on a volume-adjusted basis. Despite an increasing total turnover, emissions dropped slightly, partly because double the number of environmentally-friendly modes of transport were used than in the year before – for example, the proportion of maritime transport increased from six to twelve per cent of total transport costs.

Siemens achieved this primarily by means of the targeted selection of CO₂-friendly modes of transport: as part of what is known as a “modal shift”, the company moved from air freight to maritime freight or from land transport to rail or combined transport. Utilisation rate of loading space was increased, and transport runs were pooled. In addition, the company commits service providers to efficiency. They shall run the most modern, economical and ecologically efficient fleets possible. When tendering logistics services, Siemens gives precedence to the most sustainable of otherwise comparable solutions.

Maritime instead of air freight

In addition, pilot projects were selected to test theory in practice. One of these projects relates to steel deliveries to Siemens for use for European transformer factories: here, transport was changed to multi-modal transport by road and rail. This allowed not only for a saving of 40 per cent CO₂ but also to a considerable reduction in costs.

Another exemplary project optimised the complex transport of large pieces of medical equipment across the Atlantic: computer tomographs, magnet resonance tomographs and angiography units made by Siemens were previously all transported by plane – i.e. in a very CO₂-intensive way. Today, 70 per cent of these devices get from Europe to the USA by sea. Although this type of transport is time-critical, it is possible: Ability to deliver and com-

pliance with deadlines are also guaranteed with CO₂-efficient delivery by water.

Developing and approaching alternatives

“The key to the successful implementation of such change is always brave or progressive logistics experts who think broadly and are prepared to develop and tackle alternatives,” states Andreas Wolf. He himself was particularly attracted by the challenge of developing the intelligent combination of modes of transport. “It’s also exciting for experienced logistics experts,” says Wolf. A father of two children, he says he is also – entirely out of personal interest – highly enthusiastic in identifying and implementing the opportunities of sustainable logistics, so that future generations can have a world worth living in. From the customer point of view, the matter is relevant not just to end consumers, but to industry as well: sustainable production and resource-saving logistics are increasingly becoming tendering criteria also for customers when assigning contracts.

Sustainability is more than just a hot topic and a commitment to future generations. Particularly in the field of logistics, it often not only spares the environment from polluting emissions, but also saves company coffers money. “The charming thing about sustainability in logistics is that, above all, you save fuel, and therefore money,” confirms Andreas Wolf. “This means that people’s hearts are generally quickly won – including those of the business world.” ■

OUTSTANDING



**GERMAN AWARD FOR
SUPPLY CHAIN MANAGEMENT**
Finalists 2013



Siemens no longer takes computer tomographs to the USA by air, but by sea.



Ability to deliver and compliance with deadlines is still guaranteed with transport by water.



Fresh, frozen and ambient goods all in one go

The pooled delivery of all items from frozen goods to fruit and vegetables on one lorry helps give those that run petrol stations and kiosks more time for selling. It was convenience wholesaler Lekkerland that provided the stimulus for the reorganisation of supply at Aral. The concept convinced not only the oil group, but also BVL International, which gave Lekkerland its German Award for Supply Chain Management in 2013. →



“The future lies in freshness.”

OUTSTANDING



GERMAN AWARD FOR
SUPPLY CHAIN MANAGEMENT
2013

Interview with Kay Schiebur, Chief Supply Chain Officer, Lekkerland

In what direction is consumer behaviour at petrol stations going to develop, and how are Lekkerland’s logistics preparing for this?

Consumers are placing increasing value on a fresh and comprehensive selection of snacks for when they want something on the go. This trend will continue to strengthen in future. Our aim is to become the preferred partner for vendors of on-the-go consumption. By developing and utilising our multi-temperature logistics, we have created real added value for our customers. We pool the products of various suppliers into one vehicle, reduce the administrative effort for the people running the shops, and thus provide them with more active selling time.

How has the new concept been received by customers beyond Aral, and has it led to more contracts?

The concept has been very well received by our customers, and has led to many interesting discussions. We are now supplying to a number of our chain-based customers with our multi-temperature lorries.

Is this form of supply only suited to big customers or is it also economically feasible for smaller companies?

We need a more sophisticated solution for our kiosk customers. Flexibility and speed play a key role in the supply of small quantities. In particular, delivery to city centre locations requires a vehicle fleet made up of manoeuvrable refrigeration vehicles and sprinters.

To what extent have you set a new standard in this segment of logistics with your supply concept?

The German Award for Supply Chain Management is a great recognition of our concept, and has really been noticed. It sends a strong message to the sector. We are expecting pooling solutions that benefit customers to increase and start being considered in other sectors in future. We have already received many enquiries about the innovative concept from the worlds of science and research. ■

One thing is clear for consumers: the petrol station is no longer just a place to fill up. It is a corner shop, bakery and bistro in one. What remains hidden is the fact that the larger variety of products means that the people running petrol stations have to deal with deliveries of frozen, fresh and ambient goods, which come in daily in different delivery vehicles.

Aral petrol stations have only had one lorry coming in each day since October 8, 2012. This lorry is a multi-chamber vehicle, which has all products loaded into three different temperature zones. Behind this pooled delivery lies a well-honed, holistic logistics concept from wholesaler Lekkerland, which supplies over 61,000 customers in Germany with convenience goods. The wholesaler was the driving force behind the innovation, convincing oil group Aral of the one-stop strategy and investing in new equipment, vehicles and process development on this basis.

The spending on the restructuring totalled around 28 million euros in 2012, explains Kai Schiebur, Chief Supply Chain Officer at Lekkerland.

One lorry for everything

Over 160 multi-temperature lorries provide the technical basis for the concept; these were specifically developed to meet the individual needs of Lekkerland by vehicle construction company Wüllhorst Fahrzeugbau. The vehicles are adapted to suit constantly changing quantities in the three areas (ambient, fresh, frozen) by means of their separating walls, which can be moved in both longitudinal and transverse direction. The complex system of refrigeration technology and telematics is managed by the drivers – who play a key role in the concept – following an extensive programme of training.

In order to ensure that those people running the shops who place their order until 12 o'clock get their goods the next day, the

logistics centres also had to be restructured. This particularly affected frozen goods, which the driver previously put together in one vehicle for one petrol station. Today, warehouse staff carry out what is known as “precise picking” right in the logistics centre. By means of voice control, they can process up to six orders at once, without any paperwork.

Savvy picking

Schiebur also expanded the four stock-managing central refrigeration warehouses by around 6,300 square metres, and increased the external storage space at the Heppenheim refrigeration site. This measure was necessary, as Aral also assigned its frozen range to Lekkerland as a result of the introduction of the new logistics concept. Since then, Schiebur states that over 100 new products have been added for Aral in the frozen baked goods segment alone.

Schiebur’s holistic approach boils down to a simple formula: “one order, one delivery, one invoice.” The printing of documents is not necessary. All documents, from the dispatch notification, to the delivery note and the invoice, are sent electronically.

Schiebur is convinced that multi-temperature supply is the logistics concept of the future for chain-based customers that are supplied with a wide range of different groups of goods. He claims that, in concrete terms, this concept can be transferred to the supply to airport and station catering facilities, as well as fast food restaurants.

By the way, pooled supply not only means a time saving for the person running the petrol station, but also environmentally-friendly operation. The Lekkerland concept results in 3.4 million fewer kilometres a year – or 1.6 fewer trips round the earth per week. This corresponds to around 2,000 tonnes of CO₂ a year. ■



Three temperature zones are what make pooled delivery possible.



Lekkerland has invested in over 160 multi-temperature lorries.

Different every week, and sustainable



Alongside speciality coffees, Tchibo offers its customers a frequently changing range of goods. And in order to ensure that these make their way into the shops in a way that saves resources, the company has created an award-winning strategy.

A new world every week”, is the slogan on Tchibo’s shelves: alongside speciality coffees, the trading company offers its customers a range of products – from timers and jogging equipment, to garden chairs – that changes every seven days. A well-honed logistics system is required so that this varied range of goods reaches the shops on time. Here, Tchibo keeps a close eye on sustainability, and has been working consistently towards resource-saving and low-emission operations for six years now.

A convincing mix of measures

In 2013, the company was given the “Supply Chain Sustainability Award” for its project “Handeln mit Verantwortung” (“Acting Responsibly”). The mix of measures with which Tchibo applied for the award impressed the seven-person judging panel of sister organisations BVL International and BVL Austria. Roman Stiftner, President of BVL Austria, and Prof. Thomas Wimmer, Chairman of the Executive Board at BVL International, said of the awardee: “We are delighted to have given the award to an exemplary company such as Tchibo, which has had sustainability as a fixed part of its corporate strategy for years. The environmentally-friendly and socially responsible design of all relevant processes – from use of resources, to manufacturing of products by suppliers, to disposal – is a key factor in its quality concept.” This applies to both the coffee that Tchibo sells and the other items.

The company proves that intelligent logistics quite clearly need to be designed in a holistic way, in order to live up to the challenges of today’s global economy, and that sustainability can be shaped in an economically and ecologically satisfactory way if suppliers, business partners, employees and customers are consistently integrated into the shaping of the entire supply chain.

Code of conduct for suppliers

Tchibo has implemented sustainability guidelines for all processes within the logistics chain. For example, in terms of transport, this means that unnecessary trips must be avoided, transport is to be moved to rail as far as possible, and CO₂ reporting must be carried out for the supply chain. Suppliers are now also being committed to the company’s “Social and Environmental Code of Conduct”. An example regarding packaging of consumables is the decision to stop using PVC as well as heavy metal and solvent-containing inks for printing. The coffee and cotton primarily come from sustainable production. The raw materials for timber products and paper mostly meet the requirements of the Forest Stewardship Council (FSC). Where these do not apply, Tchibo follows the “Forest Tracking Standard”, which was developed together with the WWF. Since 2009, customers in Tchibo branches have only been receiving coffees certified as sustainable, and its espresso bears the “Fairtrade®” seal. By means of minimum prices and subsidies, this supports the working and living conditions of small farmers in producing countries, gives

them a stable and planable income and opens up new market opportunities.

The variety of products that come into the branches every week means a variety of production facilities and suppliers. According to logistics boss Marc-Stephan Heinsen, keeping track of the suppliers becomes more difficult the more partners there are. For this reason, the number should be reduced wherever possible. Between 2010 and 2012, Tchibo reduced the number of companies producing for the range by 13 per cent.

40 per cent fewer CO emissions

The number of products sold has increased, yet Tchibo has managed to reduce its CO₂ emissions by 40 per cent since 2006. That year Tchibo has begun analysing, recording and balancing its transport-related CO₂ emissions as part of the climate protection project LOTOS (“Logistics towards Sustainability”), which was launched in cooperation with the Federal Ministry for the Environment and Hamburg University of Technology (Technische Universität Hamburg-Harburg). Tchibo has also had a department for “Corporate Responsibility” since 2006. One reason for the creation of this department was the covering of social standards and statutory provisions regarding working conditions at textile suppliers in Bangladesh. Tchibo took an offensive approach to the topic and lived up to its responsibility as a modern company. “This allowed our awardee to make considerable progress,” says chair of the judging panel, Dr. Christian Plas, Founder and Managing Partner of denkstatt GmbH, Vienna, in his laudatory speech. “The ambitious target has not yet been reached. However, a continual process of improvement has been initiated, reaching deep into all roles within the company. This includes logistics and supply chain management – in an exemplary way.” Plas also highlights that Tchibo has “set the bar very high” with its sustainability project, and that it has “set standards for other companies in many respects”.

The company primarily managed to achieve the CO₂ saving in transport through less use of lorries and more rail trips, as well as preferential use of particularly economical maritime travel, known as “slow-steaming” transport. This takes more time, but the service is perfectly adequate if planned properly. Before, Tchibo did not have a precise overview of lead times; now they are maxed out. It becomes difficult if an item needs to be replaced at short notice because it does not meet the in-house quality criteria, or if there is particularly large demand for something. In this case, fast, but unfortunately more expensive and environmentally damaging, aeroplanes need to be used – but this is to remain the exception. ■

OUTSTANDING



OUTSTANDING



SUPPLY CHAIN
SUSTAINABILITY AWARD
2012





Vehicle delivery by rail

Audi AG is already operating a partially CO₂-free transport concept.

CO₂-neutral mobility from the generation of raw materials and production, to operation and recycling: Audi AG has been pursuing this vision consistently, and with a lot of enthusiasm, for years. The brand with the four rings also managed to convince the judging panel for the Supply Chain Sustainability Award with its particularly resource-saving and partially CO₂-free transport concept: Audi was the first company to receive this award in 2012. The “exemplary and holistic” concept from the Ingolstadt-based brand impressed on all fronts.

“For years we already are working on designing our logistics and production processes in a resource-saving way,” says Dr. Michael Hauf, Head of Brand Logistics at Audi. “This applies to individual parts and their assembly, as well as to the efficiency of manufacturing processes, the energy supply of machines and water circuits in the factories.” And also, he says, to the shaping of ecological logistics chains. Audi has made sustainability of processes a strategic basis for the running of the company. The company places great value on maximum efficiency and the careful handling of raw materials in all areas. The brand obligates: “Customers expect an innovative premium manufacturer to think about sustainability and environmental protection in all processes: from the manufacture of our automobiles, to their use, to recycling,” explains Dr. Michael Hauf.

Combination of lorry and rail

Audi was the first company to use trains with eco power, and has one of the highest proportions of rail transport in vehicle distribution across the sector: “We have always concentrated on an efficient, and therefore ecological, combination of lorry and rail transport,” says Hauf. Just under 30 years ago already, a transfer platform was set up to enable efficient and ergonomic loading of vehicles onto waggons. The idea, which has now penetrated the entire Volkswagen Group, was that of an employee. Since August 2010, Audi has been using the CO₂-free transport service “Eco Plus” from DB Schenker, with which it runs the “Entwicklungspartnerschaft Grüne Logistik” (“Green Logistics Development Partnership”). →

Inbound transport runs are pooled across the group and handled via regional consolidation centres. A good 70 per cent of Audi products from Ingolstadt reach their target locations by rail – 46 per cent of them using trains that run on renewable energy. The energy consumed by the “green train” for goods transport by rail between the largest Audi production site in Ingolstadt and the North Sea loading port in Emden is completely replaced by renewable energy from Germany. With this commitment, Audi is simultaneously increasing demand for eco power and creating an incentive to produce it.

Taking social responsibility

Around 180,000 vehicles from Ingolstadt alone are handled via Emden each year – more than a quarter of the vehicles built there. They are exported to the UK, Ireland, Portugal, the USA, Can-

ada, Mexico, Japan and Taiwan. In autumn 2012, CO₂-free goods transport in Germany was expanded to a second route from the factory in Neckarsulm to the North Sea. 260,000 new Audi vehicles now travel on the two routes each year. This avoids more than 10,000 tonnes of CO₂ each year – a total that corresponds to the annual power consumption of almost 4,400 four-person households. The use of the “green train” is a first step, says Michael Hauf. Now, he says, it is about converting international logistics transport to CO₂-free transport step by step: “We are planning flexible rail infrastructure for new infrastructure projects, for example at the sites of Ingolstadt and Győr, and in Mexico in the future.”

“Audi balanced mobility” is the slogan under which Audi is doing everything it can for entirely CO₂-neutral mobility and taking social responsibility on many levels, towards a bright future for coming generations. Alongside CO₂-free goods transport by rail, further measures are supporting sustainable logistics. New buildings are being planned as energy-efficient from the start. For example, in an automatic small parts warehouse in Neckarsulm the waste heat from the factory is used for underfloor heating; in the goods transport centre in Ingolstadt one hall has been run with a solar power system, heat pump, underground storage and intelligent energy distribution since the year 2000. As many suppliers do not have a rail link, parts often have to be transported by road. Lorry deliveries into regional consolidation centres are pooled across the group.

Work is being carried out in parallel on several technologies for the brand’s vehicles: alongside the optimisation of combustion engines and the electrification of drives, this includes further weight reductions by means of intelligent lightweight construction. At the same time, Audi is doing pioneering work in the development of CO₂-neutral synthetic fuels. In the long term, the factories are to produce in a CO₂-neutral way. For example, the factory in Ingolstadt only uses renewable energy and district heating; there the vehicles can already be produced in a 70 per cent CO₂-neutral way. Certified environmental logs are drawn up for new models in order to record their impact on nature throughout their entire lifecycle. This log for each new Audi model is to be improved as compared with its predecessor.

Avoiding trips, optimising capacities

This also includes avoiding transport trips, or constantly optimising transport capacities. To this end, Audi has worked with the Fraunhofer Institute to develop the packaging software “Audi PackAssistant”: this calculates the optimum loading density for components and helps with the planning of use of multi-use packaging in the cycle between suppliers and factories. Special “high-cube containers” have also been used for some years now. These permit higher and denser loading, and therefore save around 15 per cent container volume, as well as energy and carbon dioxide.

Essentially, factors such as societal change also need to be taken into account. For Audi, sustainability means actively taking responsibility in the long term, and working towards a future worth living in for subsequent generations. Michael Hauf is convinced: “Often it is the many little steps that come together to make a big difference.” ■

Automatic small parts warehouse in Neckarsulm.



Industrial processes instead of improvisation

The offshore wind industry has triggered a quantum leap in logistics. With innovations according to the modular design principle, Bremen-based BLG Logistics is transforming classic project forwarding into an automated process. →





Every ten days, two tripods – each weighing 900 tonnes – are completed and loaded in packages onto the specially made pontoon. The pontoon serves as a shuttle between the WeserWind production facilities at the offshore wind port in Bremerhaven (Labradorhafen) and the offshore terminal ABC-Halbinsel five kilometres away, where the wind turbine components are stored temporarily. The main image gives an impressive view of the handling activities at the terminal there.

The foundations, known as tripods, for the offshore wind industry are huge: as tall as Berlin's victory column and heavier than the statue of liberty in New York. However, unlike these landmarks, the tripods still need to reach their locations in the North and Baltic Seas.

Transport in such dimensions previously fell under classic project loading. However if, like at the site of foundations manufacturer WeserWind in Bremerhaven, over 100 tripods with an individual weight of 900 tonnes are loaded within a year, this requires a standardised industrial process chain. And this is what BLG Logistics has created, according to the modular design principle and the guiding aim of "as easy and cost-effective as possible" for the section from the factory to loading onto the installation vessel. Andreas Wellbrock, member of the Board of the BLG Logistics Group, claims that the savings thus achieved are almost 3 per cent of logistics costs, from 1.5 to 1.7 billion euros.

The company has invested around 25 million euros in the development of the overall system, which contains patent-

ed innovations. It includes universal rail vehicles, a special pontoon, a reusable and flexible sea-fastening system and corresponding bearing blocks. Demand for the modular components is great, and they are now used for the nacelles and towers of wind power systems, as well as transformer stations and much more. This development has surprised even Wellbrock: "There are applications for the innovations that we didn't even foresee when developing them." The concept has not only convinced the sector. BLG and WeserWind were listed as finalists for the 2013 German Award for Supply Chain Management with their holistic offshore logistics solution. ■

OUTSTANDING



**GERMAN AWARD FOR
SUPPLY CHAIN MANAGEMENT**

Finalists 2013

THE MODULAR LOGISTICS CONCEPT

■ Innovation: rail vehicles

Foundations manufacturer WeserWind produces tripods by means of continuous production on a rail system at the offshore wind port in Bremerhaven. Universal rail vehicles take care of the transport of the giants. The foundation components are put onto the pontoon by means of joystick control. The floor of this pontoon also has a track system, similar to a railway ferry.

■ Innovation: pontoon

Loading on rails saves crane costs, which would be around ten times higher if a floating crane were used. The pontoon itself has stabilisation and taring thanks to a ballast system, and is designed in such a way that it can operate in the whole of the North and Baltic Seas.

In Wellbrock's experience, loading the pontoon takes around four hours, as compared with four days for loading according to the traditional procedure, whereby the project load becomes an integral part of the ship's body by means of welding. This time saving has become possible thanks to the sea-fastening system developed by BLG Logistics.

■ Innovation: sea-fastening system

"The loading of two tripods every ten days called for an industrial process for load securing, which we adapted from container vessel transport. We took this locking system and rendered it capable of handling heavy loads," explains Wellbrock. He explains that the sea-fastening system uses the Lego building block principle and that, unlike the traditional system, which is completely destroyed during separation, it is reusable.

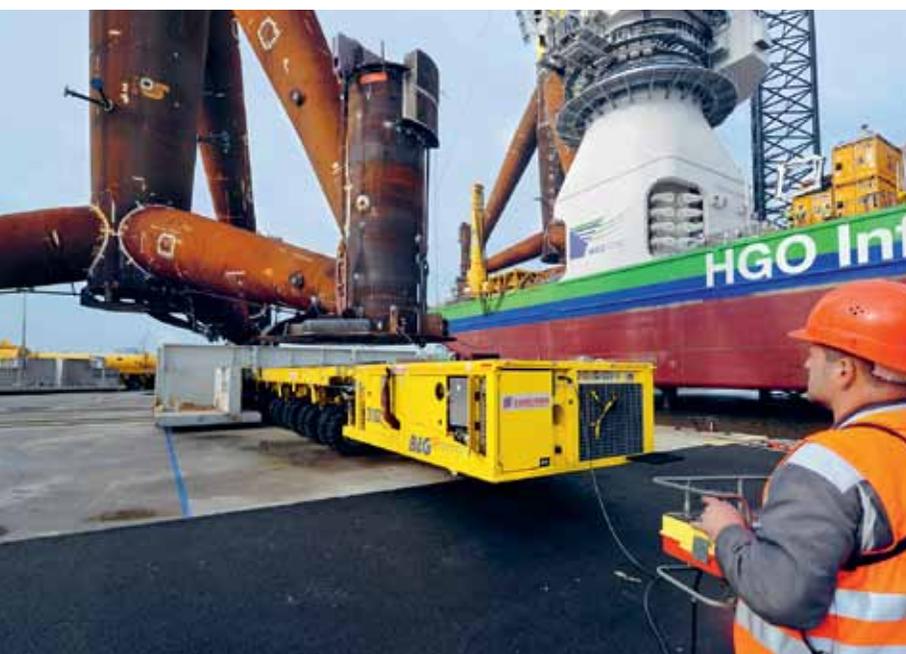
In terms of prospects, Wellbrock imagines that the new process will have an impact on intercontinental project loading. He says that the system has been well received by ship owners, who are already considering transferring it to sea-going vessels.

The journey on the pontoon, which is pulled by two tugs, to the offshore terminal of ABC-Halbinsel, lasts around two hours. "There we have built the counterpart for unloading, in the form of a heavy-load area equipped with rails," explains Wellbrock. After that, the tripods leave the rail system. Using self-driving vehicles, known as SPMTs, the tripods are taken to the temporary storage area, where 50 tripods can be stored.

■ Innovation: sleepers

As the terminal, which was built in 1906 and was previously used to handle vehicles, did not have sufficient load-bearing capacity, a cost-efficient solution needed to be found. Alongside toughening of the area to accommodate 10 tonnes per square metre, BLG Logistics invested in patented "sleepers". These are standard-production prefabricated concrete components that are equipped with an additional steel system. The simplicity of the solution won Wellbrock over. The tripods each lie on three of these sleepers so that the load is distributed over a larger area, and wait there for use.

The installation vessel "Innovation" has already taken on over 80 tripods "just in time" at ABC-Halbinsel, and installed them on the seabed to form the Global Tech 1 wind farm.



The heavyweights wait to be used out at sea in the temporary storage area on ABC-Halbinsel, where up to 50 tripods can be stored. Using self-driving vehicles, so-called SPMTs, the offshore wind industry components are loaded onto the installation vessels "just in time" and then set off for their destinations within the wind farm.

IX. OUTLOOK: WORKING TOGETHER TO MAKE THINGS HAPPEN

As a “non-lobbyist”, BVL International provides well-founded, comprehensive knowledge, in order to generate ideas in individual areas of responsibility and therefore prompt innovations that will be good for us all in economic, ecological and social terms. BVL provides facts and arguments to help people form opinions: strategically in terms of the overall understanding of logistics as an economic sector, but also concretely in terms of facts and figures that are clear and can be quoted elsewhere.

Holistic thinking and acting makes it possible to successfully shape economic processes without any orientation towards particular interests or specific ideology and in harmony with economic, ecological and social concerns. What applies to the economy in general can also be applied to the interplay between politics and business: we must act together and across all areas, and work hand-in-hand to make things happen. As a partner, BVL International makes its large network and concepts available, as well as its method transfer, to help jointly and sustainably secure Germany’s global competitiveness.

Germany is among the best in the world when it comes to logistics, and needs to actively and effectively market this position both internally and externally in order to be successful on an international level with its top logistics services. Political decision-makers can explore new pathways by focusing on concepts such as service orientation, holism, outsourcing and networking. By affirming its increased orientation towards logistics in Germany, it can ensure the required acceptance so that Germany can secure jobs and create new ones.

With its position papers, BVL International contributes towards Germany’s strengths being expanded further using political means. Logistics must be more clearly anchored in economic policy and society. Behind this is the conviction that, in today’s world, sustainable operation and the responsible handling of Earth’s natural resources are only possible with the help of innovative technologies and excellent organisation. Both come about through the interplay between research, innovative business, suitable national framework conditions and an open society. Convincing people of the value of logistics projects on both a factual and an emotional level is dependent on good contributions and creative ideas from all involved. We can contribute to this – each of us individually, but also several or all of us together.

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Top-level decision makers and important actors engage in exchanges at BVL events. Here, publisher of “Die Zeit” newspaper Josef Joffe and Saori Dubourg (President Nutrition & Health Division, BASF SE), Paul A. Laudicina (Chairman Emeritus, A.T. Kearney Inc., Chairman of GBPC), Steve Filipov (Chief Executive Officer, Terex MHPs AG, President, Terex Material Handling & Port Solutions) and Amadou Diallo (Chief Executive Officer, DHL Freight, Deutsche Post DHL) discuss the topic of the “Global Economy in 2025 – Opportunities and Challenges” at the 30th International Supply Chain Conference.

X. BVL INTERNATIONAL

As an **open network** of people working towards efficient and effective cooperation within a globally active economy, **BVL International**, which was founded in 1978, is a voluntary association of actors from the worlds of business, science and politics.

BVL is a non-profit association that is objective and independent, and does not represent any specific interests. The **approx. 10,500 members** are specialists and managers from **industry, commerce, the service sector, science and politics**.

The more than **35 regional groups/chapters** and over 20 student groups provide at least 250 free events a year throughout the world in order to promote the exchange of knowledge and experience. 200 office holders work as volunteers on the BVL committees. The international networking of BVL is not only clear through the growing number of chapters in other countries, but also through the membership of international associations such as the European Logistics Association (ELA).

BVL finances its non-profit work, among others through income from the organisation of conferences, forums and seminars. The annual **International Supply Chain Conference** in Berlin is one of the biggest economic conferences in the world. The most recent figures show attendance of approx. 3,200 participants from around 40 countries. On the third Thursday in April every year, BVL works together with partner institutions to organise the now well-known **Supply Chain Day**, which reached a record number of 36,000 participants in 2013. Within this context, the economic sector presents its range of services and possible matters of concern for the international public.

BVL members can gain and share current knowledge, such as market information, facts, figures, expertise and experience, in order to be able to identify and evaluate trends more easily or learn from good solutions. BVL unites both sides of the market.

The **BVL Office** has been located in **Bremen** for 35 years. **55 people now work full-time** at BVL, half in the Office on Schlachte and the other half at the **BVL Campus** on Universitätsallee. This site encompasses all of BVL's education and training activities at the private "School of International Business and Supply Chain Management (HIWL)" at the "German Foreign Trade and Logistics Academy (DAV)", and with "BVL seminars". This makes lifelong learning possible, as in this turbulent and fast-moving economic world the volume of knowledge grows every day, with existing knowledge becoming outdated increasingly quickly. Consistent educational services make it possible for experts and specialists as well as managers and top-level managers to always keep their logistics knowledge up-to-date.



Voluntary members of committees and full-time employees shape the strategy and impact of the association.

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