THE PROSPECTS: GOOD

Oil is running out. Doing business sustainably is changing profit margins. And more and more older people are drawn to the cities. These are just three of many predictions which have a direct impact on the transport sector. Experts Wolfgang Stölzle and Peter Wippermann discuss the future of logistics

Professor Stölzle, Professor Wippermann, since 2008 we have been going through one crisis after another. The US real-estate crisis led to the global financial crisis, which in turn led to the bank bailouts and to a government debt crisis, which has triggered the euro crisis we are still facing today...
Peter Wippermann: *Not to forget the crisis of trust. There is hardly any social institution that has not suffered some damage in recent times – whether the banks, the Catholic church or the capitalist economic system itself.*
Nevertheless, things are going well for the logistics sector. How do you explain that?
Wolfgang Stölzle: *I believe that the picture is not entirely rosy. Air freight has taken a significant knock, and growth in the rail transport sector is not what was forecast and hoped for.*
Wippermann: *Overcapacity on the world's oceans is also a real problem.*
Stölzle: *In general, this is attributable to the uncertainty of 2011, which is still being felt today. What impact do the crises in the world of finance have on the real economy? This uncertainty has developed in some areas into a general mood of pessimism. It's almost as if we have talked ourselves into the next crisis. The fact that it has not yet started is now giving rise to a cautiously positive outlook. This might be clouded by political crises, such as the changes in the Arab world. High expectations are placed on the CEP sector, not least because of the marked shifts on the market towards e-commerce.*

Do you expect this trend for the CEP industry to continue, both in the short and long term?
Stölzle: *This shift is certainly long-term. The younger generation essentially live in an electronic world to which shopping also belongs.*
Wippermann: *For a start, logistics is one of the big winners of the networking of the world though communication flows. If the global economy is communicating better, this leads to a speeding-up of information. Logistics has been working for many years to organise this.*

Will speed further increase?
Wippermann: *Absolutely. I just need to mention two pieces of data. The financial sector is – without any moral judgement – the most innovative industry we have. It takes 18 milliseconds to process a financial transaction between Frankfurt and London. This is the speed determined by computers, not people. Secondly, for Internet Protocol version 6, we have agreed a standard of 600 quadrillion internet addresses per square millimetre of the earth's surface – this is the pre-requisite for the Internet of Things. This is planned reality.*

The demands of customers in the CEP sector have grown – deliveries have to be ever faster and more convenient, and at minimum cost. Will this trend ever come to an end?
Wippermann: *Not in the foreseeable future. When human work has less and less value, this also means that autonomous machines start to compete with people. In the not too distant future, logistics systems will increasingly manage without people, as is already the case for container storage and shipping.*
Stölzle: *In my opinion, speed is not what it's about: 48 hours within Europe, 24 hours within Germany will rarely be an issue. What consumers want is convenience, individuality and reliability rather than speed." The production systems of CEP operators are still relatively rigid: time slots for delivering consignments to shops so that they can, for example, be trans-shipped at hubs at specific times and transported on can be tight. Special requests – such as delivery on a certain day between 5 and 6pm to a specific place – are rarely taken into account. Much needs to be done on the question of convenience.*

Amazon is planning to set up warehouses close to major cities so as to be able to deliver on the same day...
Stölzle: *This is true, but I was arguing from the point of view of consumers. In this case, it is about competition between suppliers – and only price, speed and reliability can be used to set oneself apart from competitors. The goods themselves are often comparable. In the B2B market, which is concerned with documents, "same day" or "overnight" are standard.*

There are two big issues which might have a significant impact

"Speed is not what it's about. 24 hours within Germany will rarely be an issue. What consumers want is convenience, individuality and reliability."

WOLFGANG STÖLZLE

2025

on logistics: energy supply and climate change. How do you think the energy supply will look in ten years?

Wippermann: *There are actually three big issues. The third is how quickly you react to innovation and implement it. How should you deal with the resource of information, which is constantly getting cheaper? In the end, the flexibility of logistics must resemble that of data traffic on the internet.*

Stölzle: *As far as the electricity supply is concerned, I assume that it will remain stable despite the energy shift. One issue is happily forgotten and greatly underestimated in the sector: that of peak oil.*

The point at which the maximum rate of global petroleum extraction is exceeded…

Stölzle: *There are many traditionalists at work in logistics who think that oil scarcity has been talked about for 40 years so there will not be any significant rise in prices as a result. This is a sceptical view in my opinion because it's no longer primarily about whether demand is higher than supply. That's old thinking. What will happen, however, if the financial markets rediscover oil as an object of speculation, as we already saw in 2008? If opinion spreads that oil is becoming scarce, speculators will pounce on it. At present, nobody can claim to have a sensible, medium-term economic calculation for the oil price trend.*

Wippermann: *But new sources of energy supply are already emerging. In inner cities, e-mobility is being developed; hesitantly it is true, but developed nevertheless. It will be self-evident in ten years' time. I do not believe the German automotive industry will be a pacesetter, but China is investing heavily in this direction.*

Stölzle: *The way the idea is being spread that the electric car will dominate our world by 2020 is a hoax.*

In what way?

Stölzle: *Just look at the figures. The German government has set a target of one million vehicles – one million of the 50 million or so at present. That barely makes a difference on the roads. And we are only talking about passenger vehicles. Commercial vehicles account for 80% of total goods transport, and that cannot be transported by rail unless we give up on passenger transport. At present, the only area in which electric cars might be used is for local distribution – but even there the results would be very disappointing. For example, a 12-tonne vehicle with an electric engine costs about twice what a normal 12-tonne vehicle costs. Its range is limited to around 100 kilometres in town, and it then has to be recharged for hours.*

Wippermann: *Another operator has nevertheless developed an electric delivery vehicle together with the University of Aachen which will be 30 minutes faster per eight-hour journey. It is now being tested. I believe that the traditional suppliers of mobile products will face competition from emerging countries, and should expect the unexpected.*

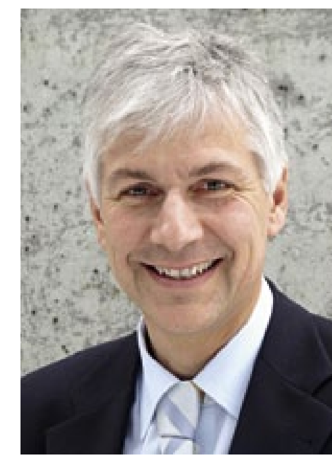
On the issue of climate change, it can be assumed that CO_2 costs will eventually be apportioned according to the polluter pays principle. Will the logistics sector be able to cope with this?

Stölzle: *Let's just say that the costs will be apportioned. Whether this will be done on a causation basis is another matter. But it will certainly lead to price rises because this is the only incentive that works in the market. The sector as a whole will of course cope, but not every company.*

Wippermann: *I would be happy to see this happen. In ten years' time, dealing with climate change will have become a guiding principle for companies. If this is done in an active, transparent and trustworthy manner, they will win. Parts of the industry will of course fight it, but others will see their opportunity. And green logistics is already relatively well developed compared to other sectors.*

"In the end, the flexibility of logistics must resemble that of data traffic on the internet."

PETER WIPPERMANN



Professor Wolfgang Stölzle, born in 1962, studied economics and business studies up to 1988. In 1993, he did a doctorate on waste management logistics; in 1999, he completed his post-doctoral studies. In the same year, he became a professor. In 2001, he took over the Chair in Business Studies, specialising in logistics, at the University of Duisburg-Essen. In 2004, he moved to the University of St. Gallen to take over the Chair in Logistics Management. Stölzle is also Chairman of the Scientific Advisory Board at the German Federal Ministry of Transport, Buildings and Urban Development and a member of the Scientific Advisory Board of the Federal Logistics Association (BVL).

2040

Professor Peter Wippermann, born in 1949, trained as a typesetter and was Art Director at the Rowohlt publishing house and at "Zeit-Magazin". In 1992, he founded "Trendbüro Hamburg", a consultancy firm for social trends, together with Matthias Horx. Since 1993, he has been Professor for Editorial Design on the Communications Design course at the Folkwang University in Essen, Germany. In 2002, he also co-founded the LeadAcademy, which each year presents the Lead Award for outstanding print and online media. His publications include "Markenkult: Wie Waren zu Ikonen werden" and a contribution to the book "Compliance in der Logistik" and "Werte-Index 2012" as co-author.

Stölzle: *It will be difficult for products which are particularly sensitive to transport costs, that is to say goods that are heavy, bulky or both. But as with all issues, be they the oil crisis, motorway tolls or the shortage of drivers, the sector as a whole will manage, but some operators will not.*

Do you expect goods transport to be shifted to other means of transport, and if so which?

Stölzle: *This trend will continue, but we should not expect massive volumes to be transferred in a short time. If the railways manage to participate in the growth rates of goods transport, much will already have been achieved. This perhaps sounds discouraging. But the railways are already at full capacity and cannot be expanded overnight. There are model calculations which suggest that shifting only ten per cent of goods currently transported by road to rail would lead to the immediate collapse of rail transport in Germany.*

Wippermann: *I assume that cooperation will grow enormously in the sector – particularly in the CEP industry, which is concerned with making individual deliveries that take up little space. It will no longer be worthwhile for each company to serve a given street separately – joint platforms will be established.*

In the non-Islamic world, we are experiencing an ageing population. What impact is this demographic change having on the logistics sector?

Wippermann: *People are living longer, and that is a good thing.*

Stölzle: *A lot depends on where you live. The trend is increasingly moving towards urban locations. Older people are not generally as mobile and will presumably have goods sent to their home more often. And if from 2025 around 50% of the population is over 60 and the baby boom generation gradually retires, these people are already familiar with electronic media and thus with "B2C". It could be a golden age for the CEP industry.*

Wippermann: *The big challenge is whether it will be possible to fund the service which the older generation would like to have. This is of course an economic problem and not one of logistics, but it does affect it. In the UK, online shopping for groceries works relatively well. Who would do that in Germany? Who would be prepared to carry goods upstairs if the customer lives on the fourth floor and there is no lift? Here too, forms of cooperation will probably be the solution.*

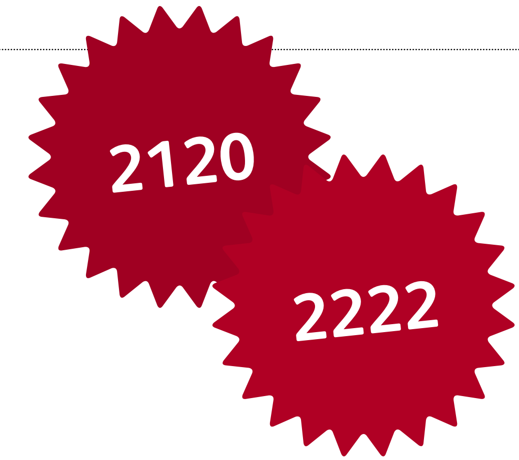
Stölzle: *It will in any case be difficult to maintain deliveries to regions in which the population is declining after 2025. There is already talk of areas in Mecklenburg-Western Pomerania where it will no longer be worth providing local transport by then. This will also impact on the CEP industry, which today still offers a universal service.*

There is at present a trend among many people towards barter, self-sufficiency and sustainable living in general. Is this hype or a shift towards less consumption?

Stölzle: *I don't really believe in this trend. In built-up areas, there are perceptibly more young people who favour different status symbols to previous generations, where having a smartphone is more important than the more deep-rooted BMW. But they are nevertheless consuming.*

"In ten years' time, dealing with climate change will have become a guiding principle for companies."

PETER WIPPERMANN



There are of course people who live a self-sufficient lifestyle, but in my opinion not many.

Wippermann: *There is the trend that recycling products is no longer stigmatised. This can be seen in fashion, where everything is retro or vintage. Previously this was considered a sign of poverty, but today it's cool. Even private homes are exchanged today, but that is because of better information services. In contrast, there are many products on sale – in the fashion sector somewhere between Kik and H&M – which are extremely cheap and intended for rapid consumption. What will also increase is so-called individual production, whereby you configure your product yourself. This is a clever idea for producers. They first take your money, then produce the goods and even pocket the resale discount. For the logistics sector, this all means much fewer returns.*

Finally: The world's goods channels are changing because, on the one hand, the East is gaining in power and, on the other, more people are living in cities. How should the logistics sector react to this?

Stölzle: *It is constantly reacting. If you look where operators are investing, it is not primarily in "good old Europe" but in Asia or South America. Logisticians are ultimately the first to notice when the flow of goods changes.*

Wippermann: *We will have different centres worldwide: some which focus on development and other which produce. They will move around. Shifts such as those occurring now from China to Vietnam and Bangladesh can only be explained by looking at the hourly wages paid. However, this is an opposite shift which focuses on speed and flexibility. A company like the Spanish firm Inditex, the largest fashion company in the world, does not buy large volumes like H&M and waits six months for the goods to be shipped by sea but only needs three days from production to the store. If the clothes are in fashion, more are produced, if not, then not. Here again is an example of how speeding things up using communications channels changes our lives and our economy.*

People tend to extend probabilities into the future. This gives rise to radical changes, most recently through the internet. Do you expect something similar in the near future?

Wippermann: *Developments are far too slow. We have high speed in technology, but unbelievable sluggishness in our everyday lives. For 20 years we have been experiencing an upheaval – the shift in the organisation of work and everyday life from hierarchies to networks. Privately we have managed this better than companies, where the network structure has to compete with the matrix structure of the old industrial era.*

Stölzle: *I don't expect a completely new technology. What will continue to increase is the unpredictability. I recently asked some logisticians how they viewed the years 2012 and 2013. Most of them didn't dare give even a quarterly forecast.*

Wippermann: *The new technologies are already there, for example nanotechnology. Moreover, new research contracts are all going in the direction of BANG design, that is the modification and optimisation of bits, atoms, neurons and genes, the things that will come after IT. This has no relevance today, but the atomic level will eventually become mobile. If only we could transfer it to the human body…*

Stölzle: *We have been through many structural changes which have had a brutal impact. Because value chains are becoming ever more fragile, because buffer stocks are increasingly being scaled down. The entire world economy is highly integrated but vulnerable as a result. We notice it when, for example, the effects of an erupting volcano in Iceland quickly spread to completely different parts of the world. That didn't happen ten or fifteen years ago. What we need today is to become more robust. Not go back to the traditional structures of the 1980s but to build in more flexibility, deploy staff in a more varied manner, and make our installations support multiple users. The logistics sector is heavily affected by this in some areas. Whoever has 300 vehicles and just as many permanently employed drivers also faces a considerable cluster risk.*

Wippermann: *Exactly. The sector needs to view the idea of collaboration and cooperation as a decisive factor. This is not the same as optimising the division of labour. Today both exist at the same time, and this will keep us going in the next ten years. Large organisations must first restructure, while firms such as Amazon or Google are completely rethinking and reorganising their processes.*

So the answer is network organisations? Must the industry completely reposition itself?

Stölzle: *A network in the CEP industry will have to look very different to one in the automotive sector, and in that sense it is very general. But it is certain that capacities, responsibilities and competences will be spread further in company networks than has so far been the case.* ∎

> *"Logisticians are ultimately the first to notice when the flow of goods changes."*
>
> WOLFGANG STÖLZLE