GCRI INTERVIEW

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In your opinion, which innovations, technologies, and services have shaped Germany as Europe's leading logistics hub?

In the second half of the 20th century, Germany developed a modern and dense infrastructure including road and rail networks, ports and airports, intermodal connections, a sophisticated structure of warehouses and the IT systems to provide complete logistics services in the heart of Europe. In the 1960s, the euro pallet was defined by leading European Railways including Deutsche Bahn and has since been used for a wide range of standardized warehousing and land transport purposes, thus complementing international innovations such as the ISO container. With advanced warehouse management solutions, packaging technologies, combined transport networks and supporting navigation, identification and information technologies, the industry is tackling the challenges of the 21st century.

Which areas of transport and logistics have the greatest innovation potential?

Much of the coming innovations will very likely be in connection with information and communication technology. I expect opportunities for significant advancements in transport and logistics, especially through improvement of interfaces. This will help to exploit the potential along the supply chain. We can avoid inefficiencies, e.g. by integrated planning of stationary and mobile processes, improved connection of regional and long distance transport or improved dock, ramp and yard management. Track-and-Trace solutions will be extended to all areas of transport logistics and combined with new services to improve robustness of our networks and integrated to demand management systems of industry and retail. More data and services will be available wherever needed through cloud computing.

Could you please provide some examples of how advances in ICT have improved the efficiency of logistics?

Since the 1970s, information and communication technology has enabled logistic networks with distributed activities, tracking and tracing, just-in-time and just-in sequence solutions. Since the 1990s, global communication and information have been boosted by the Internet. The combination routing and loading planning – e.g. for vehicles and containers – has helped to improve the efficient use of capacity. Radio-frequency identification (RFID) has helped to improve handling efficiency by more relevant information traveling with the load, to accelerate processes and to reduce the effect of human errors. More accurate satellite navigation gives us location information for vehicles and units, supporting a flexible and secure management of supply chains.

How will environmental challenges, such as limited resources, urban development, and CO2 reduction, affect logistics efficiency in the future?

Efficiency can help to achieve economic as well as ecological goals. So far, enhanced efficiency in transport and logistics has been masked by global growth. In the future, CO2-emissions will have to be reduced on all levels, including optimized structures and facilities, drives and energy sources, driver training, customer involvement, and optimal use of capacity.

What are the greatest security challenges facing international transport and logistics?

In short: Secure logistics processes need to be ensured without holding up supplies and adding too much bureaucracy. There are threats from organized crime as well as disruptions due to technical or natural disasters facing the logistics industry. Up to date facilities, systems to check and seal freight, knowing whom you work with, and sound processes are parts of the solution that will include more supply chain event management capabilities to ensure security and safety.