

New problems ahoy

By Patrizia Kern, 15th June 2018



Digitalisation in the marine sector is increasing at an accelerated rate. Technological advancement does not simply increase efficiency; it also brings new dangers.

The transport sector is undergoing an important transition. In 15 years we may no longer recognise it. Firstly, trade volumes are expected to rise significantly. By 2030, it is estimated that trade will have almost tripled, driven by the increasing global demand for raw materials fuelled by demographic developments in Africa, the expanding middle class in India, Indonesia and China, as well as the creation of large, modern cities (smart cities).

Additionally, technological advancement is also expected to make seamless networking of the global marine shipping chain possible, and likely even essential. The reason for this is the rapidly developing field of sensor technology, which, in conjunction with miniaturisation and the integration of new transmission technologies, will result in the permanence of digital communication between the manufacturing of goods, trade, provision and use.

The reality of intelligent ships (smart ships) and (partially) autonomous road and water vehicles is not far off. This new type of vehicle, combined with automatic reloading systems, will considerably change not only the shipping value creation chain, but also the entire risk map. Shipping is anticipated to become safer due to increased efficiency. However due to increased capacities, densification of shipping traffic and the quantity goods transported, transport risks will also increase significantly. As a counterbalance, smaller risks that regularly threaten the value creation chain can be reduced due to the possibility of predictive maintenance and preventative measures.

Pinpointing exact risk scenarios through smart data and smart analytics technologies presents an interdisciplinary challenge. The number of causal relationships to analyse; accessing, gathering, cleaning and analysing relevant data, plus understanding the significance of the development of new, predictive risk modelling requires involvement and interaction from engineering, analytics and technology disciplines.



Digital transformation

The networking and acceleration of developments in the transport sector is also increasing at a rapid rate. In this new digital context, insurers are faced with an extensive transformation process as their value creation chain is challenged. How so? First, it is important to understand that in broad terms, insurance services offers are based on the establishment of risk information, the modelling of risk scenarios and the determination of expected damage amounts and frequencies. Then, corresponding risk premiums can be calculated. Traditionally, insurers have relied on relatively little information about the object to be insured. Instead, “statistical” risk is generally evaluated using historical damage occurrences.

In the digital age, sensor data can offer a dynamic observation of risk in real time, through continuous observation of transported goods with navigation, traffic and weather data, for example. This new situation will not just change insurance services offers, but also the provision of services.

The digital delivery chain that is being developed, primarily from gathering and evaluating data in real time, will completely change the participant landscape and the balance of power. For example: brokers and insurers now have a solid understanding of the transport market and its corresponding risks. Yet in the future, ship owners and operators, logisticians and industrial manufacturers may be in a better position to evaluate their operational risks. This will significantly change insurance demand and amounts of cover.

In this context, insurers must fundamentally extend their core skills to cover the analysis of large streams of data that provide new knowledge and insight into the ever-changing global risk landscape. Additionally, they must develop and extend partnerships with data owners, data providers and technology providers to ensure their participation and involvement, competitive advantages and possibly even their existence.

External competition

Digital transformations are giving rise to new opportunities and business models for parties outside of the transport sector, too. This especially applies to those with broad customer coverage, proximity and loyalty, and those with large technological advantages. The decisive factor in the future, however, will not just be the mastery of new technological skills, but also the readiness and capacity to become involved in a capital-intensive business area.

The presence of data, and the possibility and capacity to transform it into insights, shall quickly become widespread, and deployed along with the core skills of a company. Thus, entering strategic partnerships with customers, data providers and technology partners will become an increasingly decisive factor for insurers as well, to leverage the possibilities of the digital ecosystem. Continuous innovation can help foster such a profitable advantage.

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