

**THE DIGITAL REVOLUTION  
IN THE CHEMICAL INDUSTRY  
MUST BE MATCHED WITH RAPID  
EVOLUTION IN ITS SUPPLY CHAIN**



***cordstrap***



To maintain competitiveness as the chemical industry embraces the Fourth Industrial Revolution, it is vital that you leverage the extraordinary potential this presents while negotiating the pitfalls. More data has been created in the past two years than in the last two decades, which presents us with a huge challenge both to store and analyze effectively. While data is the currency of this revolution and permits a heightened level of transparency between organizations helping to reinforce trusting partnerships and business relationships, it is also open to manipulation and misuse, so it must be handled with care, sensitivity and security.

One of the biggest challenges is the interface between the digital and the physical and that is a key reason it has taken the many industries, including the chemical industry longer to adopt these new technologies than other sectors. The internet of things (IoT) can bridge that gap. Knowing exactly where shipments are and precisely what conditions they are encountering offers huge reassurance when you are handling large volumes of potentially volatile and hazardous materials. And by monitoring every shipment at a container level, we can assess risks much more accurately and use the data to develop, engineer and deploy safer and more cost-effective cargo protection solutions.

### In a digital world, supply chains have to be faster, safer and more reliable

The pace of digital change is accelerating. Emphasis on the potential of digitization at last year's LogiChem U.S. (2018) conference has now shifted to discussions about real applications of the technology which are actively delivering transformational change.

There was little doubt that digitization has the potential to transform value chains, drive higher productivity and create new channels to market. Consequently, the world's major chemical companies are now in a race to digitize.

However, all these changes will place new pressures on the logistics teams responsible for the physical transportation of high value and often dangerous goods. Digitization will take them along new routes using different modalities and carriers to new customers. It is, therefore, imperative to separate the substance from the hype and carefully evaluate what practical operational changes this will mean for the industry. Delivering your cargo more safely, quickly and reliably is critical if your business is to live up to the heightened customer expectations of a new digital world.

### Digitization depends on functional excellence throughout the supply chain

In the dash to digital, it is important to take a step back and recognize that digitization is all about enabling functional excellence. Protecting physical cargo right across your supply chain is fundamental to delivering functional excellence. And, to address the pressures of new, more efficient, digital systems, those cargo protection solutions should be fast to apply and error-proof.

To implement them effectively, everyone across the supply chain must be trained to fully understand them and be able to apply them efficiently. Solutions must be designed to match specific modalities, regulations and load types and operatives need to know where each solution should be deployed. Finally, they must be continually improved. As we capture increasing amounts of information about cargo journeys, we can protect cargo more effectively.

Failure to do any of this will inevitably result in damaged goods, supply chain disruption, higher costs and, ultimately, real harm to customer relationships. This is particularly dangerous in a digital world where trust is widely acknowledged to be the single most important commodity. Global research by leading digital marketing agency, iProspect, found that nine out of ten businesses rank trust as the number one priority to drive growth in the digital economy. It is easily lost and almost impossible to regain.

## Trust is critical in the new digital world

To derive maximum value from big data and technologies that fuel it, like the IoT, it is crucial that you put your trust in partners whose brands are backed with credibility, relevance and total reliability. This will not only ensure that data is entirely secure but also that it will be analyzed with the depth of expertise required to realize its true value.

Innovations like blockchain help create new levels of trust and transparency. Ultimately, that will mean the way that cargo is loaded and secured will be clear to anyone handling the cargo. In the meantime, we must adopt a culture in which cargo protection is engineered to the highest quality and regulatory standards. This is especially important in the chemical industry where any kind of failure can result, quite literally, in disaster.

Digitization is already beginning to offer massive cost and time efficiencies thanks to the increased flexibility of digitally-enhanced routing and tracking. However, to fully leverage these efficiencies, logistics teams must configure and protect their shipments from securing the trust of regulatory bodies. This will allow them to pass unchallenged from one modality to the next and flow freely through different international jurisdictions making the most of optimized routing.

Failure to understand the regulations for every modality in every jurisdiction could lead to shipments being delayed or even rejected. The consequences of this can be huge – potentially affecting productivity and profitability. If the shipment is to an external customer, this could undermine the trust in that relationship beyond repair. If it is between your facilities, it could affect critical aspects of production impacting your business performance and damaging inter-departmental relations.

Nothing will erode trust faster than cargo that is damaged, delayed or rejected. So, while digitally engineered cargo protection might not appear first on companies' lists of digital priorities, it is possibly the single most important thing to secure as part of your digital implementation strategy.



## IoT – taking cargo protection to the next level

The term, internet of things IoT, is widely used in the digital space, and it's easy to dismiss as being over-hyped. But, when strategically deployed in logistics operations, it can provide data that is invaluable in improving cargo protection solutions. Cordstrap has worked closely with a leader in the field of IoT to engineer a market-leading digital service, Cordstrap Cargo Monitoring. By creating IoT-equipped "smart containers", we can collect data to provide fresh insights into the life of your cargo.

This, massively expanded, new data picture enables us to predictively plan what protection your cargo needs and precisely engineer the most efficient and failsafe solutions. It can tell us the temperature your cargo is likely to be subjected to on any given route, the moisture levels that might lead to, and the kind of physical forces that it might be subjected to. That's especially important as loads on some modalities are subject to forces as high as 4G.

Armed with these vast new datasets, we can ensure that future shipments have optimal protection and your logistics teams can be fully briefed on the challenges of any new routes that digitization has opened up for them. The data also enables us to continually improve and develop new cargo protection solutions that will make cargo safer in a fast-changing world.





## The digital world is global. Is your cargo protection partner?

Digitization allows businesses to operate globally much more easily, but that presents new challenges in itself. Having a cargo protection partner with a truly global support network not only means that logistics teams are fully informed about regulatory requirements wherever new markets emerge, but it can also advise on local nuances and likely climate issues. By working with a single partner, businesses can standardize processes globally, enabling any of their facilities to supply any of their customers to the same standards of best practice.

Working in partnership with a cargo protection expert is also critical. A close relationship will allow them to take a more holistic approach to the businesses as it manages the changes associated with digital transformation. As a trusted partner, Cordstrap will work with every aspect of the business supply chain from Health and Safety to Planning and Packaging. And, of course, a proactive partnership enables us to provide ongoing support and advice to your logistics teams, 3PL partners and insurance providers to secure ongoing efficiencies and further drive down costs.

There is only one cargo protection expert who can offer all that. Cordstrap operates out of over 50 countries worldwide and have partnered with many of the chemical industry's biggest players to protect their cargo, their employees and their reputations. Our market-leading cargo protection solutions secure cargo across all modalities and comply with all the world's key regulations. And our cargo protection experts support our customers with unparalleled global and local expertise. For over 50 years, our innovations have led the way powering business performance through superior cargo protection.

To discuss how Cordstrap can power your business performance through superior cargo protection contact:

**Brett Calamari**  
Director – Chemical Segment  
m +1 843 814 8963  
e [brett.calamari@cordstrap.com](mailto:brett.calamari@cordstrap.com)