

# Crisis-proof supply chains

Utilising potential for value creation and enhancing organisational resilience



**Supply bottlenecks, environmental requirements and supply chain laws: local and global disruptions are presenting major challenges for industrial production processes.**

**How can medium-sized businesses optimise their potential for value creation during times of crisis? And how can they remain competitive? Which 4.0 technologies support production while enhancing organisational resilience?**

Internal changes and global events can quickly threaten core business. The resilience of a company is only determined after an incident occurs that puts this resilience to the test. Resilience? What exactly is meant by this?

In order for a business to continue functioning in a complex, dynamic environment and times of crisis, it requires resilience and flexibility. **Organisational resilience** is key to ensuring a company's long-term success. This includes the ability to predict changes, prepare for them, react to them and quickly adapt to safeguard the company's existence, future growth and value. The outbreak of the COVID-19 pandemic brought the topic of crisis-proof supply chains to international attention and is more relevant than ever due to the Ukraine conflict. The key question here: How can organisations and supply chains increase their resilience to crises?



# Situational awareness: identifying the risk factors

The basis for greater organisational resilience begins with situational awareness. This involves continuously **identifying the risks and potential weak points** in supply chains. Other factors such as the COVID pandemic, energy price hikes, geopolitical challenges, material and personnel shortages, and disruptions to supply chains are complex risk situations that can impact an organisation's ability to function. Fluctuations in demand, interdependencies on other companies, partnerships with sub-contractors or new regulations and ESG requirements should be continuously monitored as part of situational awareness and actively shaped where possible. Additio-

nally, **internal risk factors** across all business processes should be considered and monitored: Where can improvements be made? At which point in the supply chain do problems occur? Where are processes or communication disruptive, faulty or lacking? Are there sufficient resources to resolve weak points? **Major resilience potential can be tapped into** in these areas.

**Organisational resilience** describes the ability of a company to withstand and adapt to a complex, changing environment.

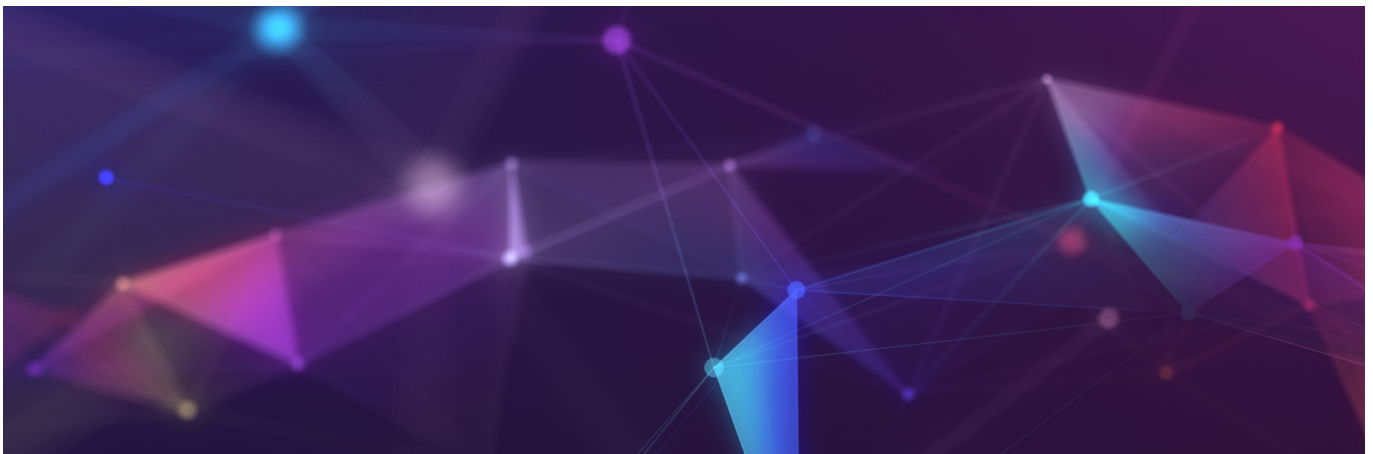
**Situational awareness** (means seeing the overall picture and identifying and monitoring every event and its impact.



## Greater transparency and stability with digital technologies

Resources for greater resilience lie in qualified employees, infrastructure, information and technologies. **Industry 4.0 smart technologies** in particular are an effective tool for added resilience across the supply chain. After all, proper networking and digitalisation of processes creates a great deal of **transparency** – an essential requirement for making the right decisions in good time. Digitalised and automated processes increase general process security on the one hand and provide **information** from which **knowledge** can be de-

rived on the other. The result: efficient, optimised and transparent processes that enable **fast response times** and make the company more adaptable. Above all, 4.0 technologies provide **transparency and stability**.



## 4.0 is affordable – even for SMEs

Industry 4.0 doesn't just consist of smart factories with self-driving transport systems that move components from station to station. Smart production begins with incoming invoices and order confirmations being automatically read and processed, for example. It may include production employees that don't call off orders from a piece of paper next to their machines, but receive them digitally at their work desk. It could also involve data not having to be manually input into Excel sheets. **Small changes to a system** can have a **huge impact**.

The majority of industrial companies already use 4.0 technologies. Experts estimate global investments of over 390 billion US dollars in smart factories by 2024 (source: Siemens Financial Services 2019). Thanks to targeted R&D investments, the necessary basic technologies and **numerous, tested solutions** are already available, from

which major corporations as well as small and medium-sized businesses can benefit. The technologies for greater organisational resilience are now affordable these days. Lack of budget is no longer an excuse as **individual digitalisation strategies continue to be subsidised by the Federal Ministry for Economic Affairs and Climate Action**. What is preventing medium-sized businesses from utilising the potential of digital transformation to render them more crisis-proof?

## ERP software as a digital backbone: for stable processes and flexible supply chain management

**Flexible business software** that can quickly respond to new requirements forms the basis of a crisis-proof supply chain: An ERP system is the digital backbone that links various company processes and data, centrally integrates them into the system and provides relevant benefits. **Manual processes are automated** and relevant information can be retrieved in real time. This results in efficiently controlled, standardised and **visibly optimised processes across the supply chain**. External customer and supplier systems are also linked with a high degree of integrability so that departmental and company-wide processes run smoothly.

Automatic real-time reports provide **valuable insight** across all company areas and processes. **Production and logistics** processes can be **intelligently managed**, quickly adapted to critical situations or dramatic changes and enable a targeted response to production and customer requirements. The ERP system **improves process, system and data security**, provides flexible management across the supply chain and thus increases company stability. In short, an ERP system is key to company resilience.

### Process reliability: implementing excellence

The British Standard Institution (BSI) defines process reliability as one of the key **factors for organisational resilience**. It must be ensured that processes within an organisation are robust, reliable and run correctly through the use of a systematic quality approach and by implementing excellence.

(Source: <https://www.bsigroup.com/de-DE/Unsere-Dienstleistungen/Organisatorische-Resilienz/Wesentliche-Elemente-und-Bereiche-der-organisatorischen-Resilienz/>)



# Automated communication with suppliers and customers

Manually taking orders, checking warehouse resources, typing data into Excel sheets and sending copious amounts of emails robs non-networked supply chains of efficiency, process and communication security. After all, manual communication is not only extremely time-consuming but is also prone to error. Furthermore, communication with customers and suppliers should not involve a logistical coordination task.

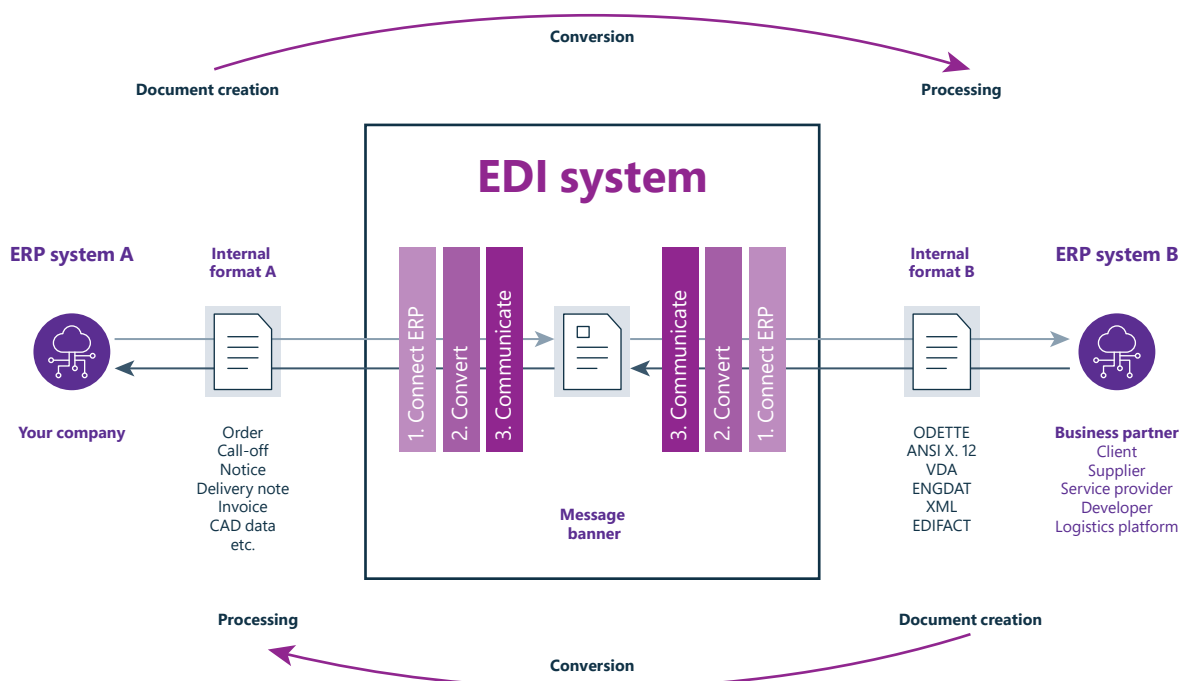
Thanks to 4.0 technologies, **modern customer and supplier communication** is now automated – everything is automatically processed by the system, from reading call-offs to order confirmation. Tools such as ORDAT 365csm were specially designed for complex delivery processes to **automate ordering processes**. ORDAT 365csm allows EDI outgoing and incoming invoicing with all common message standards. Orders, delivery notes, invoices and other business documents are all **automatically processed and sent** without manual input. This creates faster, more efficient and reliable customer order management along with seamless exchange between parties. Highly complex delivery processes are reliably managed by the system, resulting in a huge **gain in process reliability, time and manpower**.



With **ORDAT 365csm**, ORDAT offers an in-house **customer and supplier management solution** for highly automated delivery processes. The scalable ERP partial solution can be fully integrated into the existing ERP system, allowing reliable EDI communication and digitalising complex B2B and B2C processes across the entire supply chain. This increases process security and organisational resilience.

## More information at:

<https://www.ordat.com/loesungen/teilloesungen/microsoft-ergaenzungen/365csm.html>



*Electronic data exchange: the communication process using an EDI system*



# Logistics 4.0: intelligent shipping and container management



**Networking logistics processes** also allows complex delivery processes to be quickly and reliably implemented, tapping into new resilience potential. This is because **high information transparency and automated communication** improves material flows across the company. The aim of Logistics 4.0 is to consistently fulfil the seven Rs of Logistics: The right product in the right condition at the right time in the right quantity at the right price with the right information to the right place. **The 7 Rs of logistics** 4.0-compatible systems link processes, objects, supply chain partners and customers with state-of-the-art information and communication technology (ICT). This results in intelligent, automated and transparent material flows, reduced error, accelerated processes and reliable forecasts for more accurate needs and resource scheduling. This allows companies to flexibly react to last-minute changes and realise individual customer wishes just in time, even for small batches.

The **ORDAT 365csm platform** forms the basis for **Logistics 4.0** and **automates data exchange across the entire supply chain** – from the supplier to the customer. In addition to managing planning delivery schedules and standard and detailed call-offs, 365csm optimises shipping management including container management, labels and delivery documents. Containers always remain visible internally as well as to suppliers, customers and hauliers for **greater transparency in the container cycle**.

## Enhance the organisation with ERP and ORDATcsm

The synergy of ERP and ORDAT 365csm combined **improves future viability and transparency**. Various organisational silos and operational disciplines are coordinated and integrated into the ERP system. Processes are standardised and simplified, resulting in huge **time and cost savings**. 4.0 technologies not only support everyday processes but also **minimise the probability and occurrence of incidents** through intelligent networking. Centrally managed processes and real-time data allow fast re-

action times and effective resolution of problems. Particularly in dynamic and crisis-ridden times, technological resources **enhance the core business**, thus setting the course for **effective crisis and business continuity management**.

## Next level: demand forecasts

Demand forecasting, i.e. **predicting the demand and future prospects** of own products and services, is an increasingly significant factor for reducing company risk and making key business decisions. From planning production processes, purchasing raw materials, managing finances to pricing – ORDAT 365csm delivers the necessary requirements for **demand forecasts** through electronic message

processing. The tool creates the required **sales data**, which in turn can be used for **predictive analyses** to understand and better predict customer demand. This allows companies to make **sound decisions** across the **supply chain and optimise sales and production**.

## Future prospects: simulation to test resilience

ORDAT is currently working on an **AI simulation** that will test a **company's resilience to (market) changes**. Where are the sticking points and difficulties in the system? What are the effects of supply shortages? With the help of simulation based on AI models, an organisation's risks can be identified which in turn form the basis for optimum, effective preparation to changes or threats.

Those who want to lay the foundations for future technologies today and begin **digitalising their supply chain** are in the right place with ORDAT.



**We will be happy to advise you, find the best solution for your business and support you on your digital transformation journey.**

## Future-oriented ERP solutions for medium-sized businesses

ORDAT is a leading ERP provider for medium-sized businesses in the manufacturing industry. The ERP experts and certified Microsoft partners develop powerful, future-oriented ERP solutions that are specifically tailored to the business model and (industry) requirements of their customers.

In doing so, ORDAT enables its customers to produce more efficiently, respond more intelligently and quickly through relevant insights and increase their competitiveness in the long term.

Companies in the automotive, electronics, metal and process industries, as well as medical technology and plastics processing industries will particularly benefit from the in-depth industry and process knowledge of the ERP experts. ORDAT is a major factor in the digital future of medium-sized businesses.





# Transforming Business into Future.

For more information please visit  
our website: [www.ordat.com](http://www.ordat.com)